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Author(s):	Burgin, Jillian Elizabeth
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STORMWATER POLLUTION PREVENTION PLAN

TA-60-01 Heavy Equipment Shop

Los Alamos National Laboratory

A requirement of the
NPDES MULTI-SECTOR GENERAL PERMIT
#NMR053915 (LANS)
for Storm Water Discharges Associated with Industrial Activities

Prepared by:
Los Alamos National Laboratory
Environmental Protection & Compliance Programs
EPC-CP (Water Quality & Storm Water)
PO Box 1663 MS K490
Los Alamos, New Mexico 87545

Revision 3: January 2018

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PREFACE

This Storm Water Pollution Prevention Plan (SWPPP) was developed in accordance with the provisions of the Clean Water Act (33 U.S.C. §§1251 et seq., as amended), and the Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity (U.S. EPA, June 2015) issued by the U.S. Environmental Protection Agency (EPA) for the National Pollutant Discharge Elimination System (NPDES) and using the industry specific permit requirements for *Sector P-Land Transportation and Warehousing* as a guide. The applicable stormwater discharge permit is EPA General Permit Registration Number NMR053915 (Los Alamos National Security (LANS) (U.S. EPA, June 2015). Contents of the June 4, 2015 Multi-sector General Permit can be viewed at: https://www.epa.gov/sites/production/files/2015-10/documents/msgp2015_finalpermit.pdf

This SWPPP applies to discharges of stormwater from the operational areas of the TA-60-01 Heavy Equipment Shop at Los Alamos National Laboratory. Los Alamos National Laboratory (also referred to as LANL or the "Laboratory") is owned by the Department of Energy (DOE), and is operated by Los Alamos National Security, LLC (LANS). Throughout this document, the term "facility" refers to the TA-60-01 Heavy Equipment Shop and associated areas. The current permit expires at midnight on June 4, 2020.

A copy of the facility NOI and LANS Delegation of Authority Letter are located in Appendix C of this SWPPP.

SECTION 1: FACILITY DESCRIPTION AND CONTACT INFORMATION

1.1 Facility Description and Contact Information

The Heavy Equipment Shop is located in Technical Area 60, Building 0001 (TA-60-01) on the east side of Eniwetok Drive approximately one quarter mile from the intersection of Diamond Rd. and Eniwetok Dr., within Los Alamos National Laboratory, in Los Alamos County, New Mexico.

Facility Operator: Los Alamos National Security, LLC
PO Box 1663 MS K490
Los Alamos, NM 87545
Phone: 505-667-0666

Facility Contacts: Holly Wheeler, MSGP Compliance Project Lead, EPC-CP
Office: 505-667-1312
Email: hbenson@lanl.gov

Jillian E. Burgin, MSGP SWPPP Inspector
Deployed Environmental Professional (DEP), CISEC
Office: 505-665-1893 or Cell: 505-309-1914
Email: jburgin@lanl.gov

Other applicable facility data and contact information is provided in the facility NOI, which is located in Appendix C of this SWPPP. The NOI provides the coordinates of the facility and also a link to the online location where this SWPPP can be viewed.

1.2 Stormwater Pollution Prevention Teams

The TA-60-01 Heavy Equipment Shop (HES) is part of LANL's Utilities and Institutional (UI) Facilities Operations Directorate (FOD) with day-to-day management provided by the Logistics Division - Heavy Equipment Roads & Grounds (LOG-HERG); which has established a Stormwater Pollution Prevention Team (PPT) whose members are responsible for assisting the facility manager in developing and revising the facility's SWPPP as well as maintaining control measures and taking corrective actions when required. All PPT members will have access to either a hard copy or an electronic version of this SWPPP. A list of PPT members along with duties and contact information is provided in Appendix A of this SWPPP.

Designation of Pollution Prevention Teams

The Stormwater PPT for the TA-60-01 HES consists of operations and management personnel from UI FOD and the facility, a representative from EPC-CP, and a DEP. The EPC-CP representative is responsible for providing subject matter expertise to help ensure Laboratory compliance under the National Pollutant Discharge Elimination System (NPDES) permit regulations. The team members are selected on the basis of their familiarity with the activities at the facility and the potential impacts of those activities on stormwater runoff.

The specific duties of individual team members of the PPT are listed below and in Appendix A

- **Pollution Prevention Team Leader:** The PPT Leader is identified in Appendix A of this SWPPP. The Team Leader or designated representative will assist EPC-CP and/or the DEP in performing routine inspections as described in Section 5.2 of this SWPPP. The Team Leader or designated

representative will also ensure that the appropriate facility and other LANS personnel receive the training as specified in Section 3.8 of this SWPPP.

- Team Members: Other members of the team are responsible for the implementation of this SWPPP and the required periodic inspections, as described in Section 5 of this SWPPP. In the event of a spill or release, a team member will ensure that prompt cleanup occurs and will incorporate documentation of the spill and cleanup process into the Spill Tracking Table located in Appendix G of this SWPPP. Team members will also be selected to assist/represent the Team Leader in performing routine, annual and visual site inspections.

- EPC-CP Project Lead: Supports the facility and provides guidance associated with implementation of the compliance requirements identified in the 2015 MSGP. The EPC-CP Project Leader also acts as the institutional point of contact for all interactions with the regulatory authority (EPA) and supervises personnel that implement monitoring requirements for the facility.

- DEP: Responsible for SWPPP updates and conducting routine facility inspections and entering corrective actions into the Corrective Action Report (CARs) Database. The DEP is also responsible for tracking and updating the status of corrective actions that cannot be implemented immediately.

- All Members: All PPT members are responsible for being familiar with and implementing this SWPPP and for compliance with the 2015 MSGP.

1.3 Site Description/Industrial Activities

The industrial activities at this site are classified under **Sector P- Land Transportation and Warehousing**. The primary operation of the TA-60-01 HES is to repair and maintain heavy equipment and government vehicles used at LANL. The boundary of the facility covers an estimated 8.5 acres on Eniwetok Drive in Los Alamos. Approximately 7.5 acres (90%) of the facility consists of impervious surfaces. The site is located southeast of Sandia Canyon, which serves as the area watershed.

The HES building consists of administrative offices, a parts/supply room, a taxi dispatch and vehicle transfer office. Heavy equipment and vehicles are stored and staged in adjacent parking lots to the east and west of the facility. The repair bays are located on the upper/south and lower/north portions of the building. The eastern lower lot of the facility is used for various craft material storage and equipment part storage. There are also roll-off bins for metal and wood recycle in the lower east lot. Parking for government and personally owned vehicles is located on the west and south sides of the building.

Vehicle maintenance at the HES primarily takes place inside the repair bays. Outdoor activities consist of material handling, vehicle and equipment staging, the transfer and storage of oil/used oil and other chemical products for vehicle maintenance. The upper east lot of the facility contains various storage buildings, parking for vehicles and equipment awaiting repairs, ATVs, air compressors, containers, material racks, secondary containment units for oils, antifreeze, cleaners and a waste accumulation area. The refueling trucks for the laboratory are kept staged in the upper east lot and are also regulated under a Spill Prevention Control and Countermeasure (SPCC) Plan. There is a vehicle steam cleaning pad located east of the north bay that discharges directly to a trench drain. The trench drain is connected to an oil-water separator (OWS) that discharges to the sanitary waste water sewer system (SWWS).

Industrial activities and major structures at the facility are shown on the Site Map in Appendix B, Figure B-3. Detailed descriptions of the facility areas and industrial activities are provided in Section 2.0.

1.4 General Location Map

The general location map for the facility can be found as Figure B-1 in Appendix B. Figure B-2 provides locations of all receiving waters associated with stormwater discharges from the facility. 100% of the site

flows to Sandia Canyon. The canyon at this location is a perennial stream and eventually flows into the Rio Grande approximately 10 miles southeast of the site.

1.5 Site Map

A site map provided in Figure B-3 illustrates the facility's activities: including property boundaries, structures, impervious surfaces, operational areas as well as information on drainage patterns, stormwater and erosion control structures, potential pollutant sources, and nearby receiving streams.

As required by the 2015 MSGP, the following information specific to the facility is shown either on the site map or with additional information provided in this SWPPP.

- **Site Boundaries and Acreage**. The site covers approximately 8.5 acres
- **Significant Structures and Impervious Surfaces.** The site is 90% impervious, primarily structures and paved lots.
- **Direction of Stormwater Flow and Site Drainage.** Direction of flow is indicated with arrows.
- **Locations of Structural Stormwater Control Measures**.
- **Locations of all Receiving Waters.** In the immediate vicinity of the facility, indicating if any of the waters are Impaired and, if so, whether the waters have TMDLs established for them (see paragraph below this list). A map of nearby receiving waters is provided in Appendix B-2.
- **Locations of all Stormwater Conveyances.** This includes all ditches, pipes, and swales.
- **Locations of Potential Pollutant Sources.**
- **Locations of Significant Spills or Leaks.**
- **Locations of all Stormwater Monitoring Points.**
- **Locations of Stormwater Inlets and Outfalls**. Of which each will require a unique identification code for each outfall (e.g., Outfall 022, etc), indicating if you are treating one or more outfalls as "substantially identical" and an approximate outline of the areas draining to each outfall.
- This facility is not associated with a municipal separate storm sewer system (MS4)
- **Areas of designated critical habitat for endangered or threatened species.** There are none in the direct vicinity of the facility. However, a map for threatened and endangered species within LANL property is included in Appendix B-4.
- There are no non-stormwater discharges at the facility (see certification in Appendix D)
- Locations of the following activities where such activities are exposed to precipitation:
    - fueling stations (refueling trucks are kept on site);
    - vehicle and equipment maintenance and/or cleaning areas;
    - loading/unloading areas;
    - locations used for the treatment, storage, or disposal of wastes;
    - liquid storage tanks;
    - processing and storage areas;
    - immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility;
    - transfer areas for substances in bulk;
    - machinery; and
    - locations and sources of run-on to the site.

1.6 Outfalls

There are five stormwater outfalls associated with this facility: Outfalls: 021, 022, 023, 024 & 025.

Outfalls 021 & 22: are located on the east side of the site in the main drainage ditch between the upper and lower east lots. The two discharge points receive drainage from the drop inlet east of the main building and the detention basin east of the building. These drain the bulk of the upper east lot at HES and would receive the majority of all potential pollutants found at the facility. An automated monitoring station, **MSGP02201** is located at Outfall 022.

Outfall 023: is a drop inlet and culvert located at the lower east lot. Discharge is to a drainage ditch east of the facility.

Outfall 024: is an asphalt rundown located on the northwest side of the building in front of the lower repair bay. The rundown drains to a stable ditch that runs east to Sandia Canyon. The rundown drains the main front parking lot and the front of both lower bays.

Outfall 025: is a culvert located northwest of the building under Maniac Rd. The culvert runs north to a waterway/culvert system that runs to the east to Sandia Canyon. The drainage area includes parking lots west of the main front parking lot.

Significantly Identical Outfalls: Outfalls 021, 023, 024, 025 are significantly identical to Outfall 022 where automated stormwater monitoring is performed for the facility.

SECTION 2: POTENTIAL POLLUTANT SOURCES

2.1 Potential Pollutants Associated with Industrial Activity

Industrial activities that could potentially result in releases to the environment are summarized below. In general, materials stored in outside locations at the TA-60-01 HES have secondary containment units, are stored in enclosed sheds or structures, or covered with tarps. The trench drain on the east side of the lower shops discharges to an oil-water separator (OWS) which prevents oil discharge to the environment. MicroBlaze and oil absorbent materials are kept on hand to clean up spills immediately should they occur. The primary industrial activities that could be exposed to stormwater (and associated pollutants) are provided below and in the site map listed in Appendix B (B-2):

Upper East Lot:

- **Bulk Storage Area:** outdoors and adjacent to the bottom (north) shop. The area contains four plastic (poly) secondary containment basins that hold drums of antifreeze, diesel exhaust fluid, diesel fuel and window washing fluid. The plastic basins are contained within a concrete secondary containment unit, which has the capability to discharge to the trench drain and oil/water separator.
  Potential pollutants include: antifreeze, diesel exhaust fluid/fuel, window washing fluid, oil.

- **NM Special Waste Storage Area (Site ID# 2266):** outdoors in the mid-section of the upper east lot. This area consists of several 55-gallon steel drums sitting on wooden pallets. The drums are used to store waste oil mixed with soil or oil-dry product used during cleanup of oil leaks in or around the shop.
  Potential pollutants include: used oil/mixed oil, petroleum contaminated media.

- **Empty 55-gallon drum storage area:** is located adjacent to the NM special waste storage area. The drums previously contained fluids for vehicle maintenance and are eventually recycled.
  Potential pollutants include: residuals from petroleum products, oils, hydraulic fluid, diesel exhaust fluid, antifreeze, window washing fluid.

- **Used Oil Storage Areas (2):** a 500-gallon poly-tank at the northeast side of the building, which serves the bottom shops; and a 150-gallon poly-tank at the southeast side of the building, which serves the upper shops. Used oil is pumped from the shops into the tanks. Both poly-tanks are in concrete secondary containment units. *Potential pollutants include: used oil/oily water.*

- **Drum Storage at Upper Shop:** southeast section of the building outside of upper shops. Consists of 55-gallon steel/poly drums containing new motor oil, hydraulic fluid, and window washing fluid. The area is on asphalt and protected by a secondary containment berm, which contains a locked discharge valve.
  Potential pollutants include: petroleum products, oils, hydraulic fluid, diesel exhaust fluid, antifreeze, window washing fluid.

- **Refueling Trucks, Heavy and Small Equipment:** parking and staging in the upper east lot for various equipment. Refueling trucks, heavy equipment and vehicles waiting for repair, small ATVs, tire recycle.
  Potential pollutants include: leaks of petroleum products, hydraulic fluid, antifreeze, gasoline/fuels.

- **Metal Parts for Heavy Equipment:** primarily in the northeastern section at the back of the upper east lot. Metal racks containing blades and other metal parts for heavy equipment.
  Potential pollutants include: metal residuals.

- **East Repair Bays:** located on the north and south sections of the building. Vehicle and heavy equipment repair and maintenance takes place within the bays. Oil recycling and oil filter crushing takes place at the lower north bay. Oil filters are crushed and placed into drums which are picked up on a regular basis by Mesa Oil.
  Potential pollutants include: leaks of petroleum products, oils, hydrolic fluid, antifreeze, gasoline/fuels.

Lower East Lot:

- **Miscellaneous Heavy Equipment Parts and Metal Storage:** stored throughout the lower east lot. Storage consists of heavy equipment buckets, blades, sheet metal, metal associated with crane operations, and various other parts. *Potential pollutants include: metal residuals, machine oil residuals.*

- **TA-60-117 Paint Storage Shed:** used by painting crews to store various paints. Paint is removed and returned to the shed as needed for jobs. The paint is typically loaded and unloaded from a flat-bed truck or work truck. *Potential pollutants include: paints, lacquers, thinners, caulking/grouting products.*

- **Metal and Wood Roll-Off Bins for Recycle:** located in the NW corner of the lower east lot. These 30 yard recycle bins are used to store scrap metal and wood until the bins are picked up by the LANL Material Recycling Facility (MRF). The bins are typically emptied on a weekly basis.
  Potential pollutants include: metal residuals, machine oil residuals, wood shavings, wood treatment chemicals/residuals.

- **Miscellaneous Craft Storage Sheds:** several storage sheds are in the lower east lot and are used to store a variety of materials for craft workers. TA-60-129 is used to store spill clean-up material and small equipment parts. *Potential pollutants include: miscellaneous (all those listed above).*

Upper & Lower West Lots:

- **Vehicle and Small Equipment Parking:** located in the upper west lot, consists of parking for personally owned vehicles, government vehicles and small equipment such as portable lighting units, compressors and generators. General parking is located directly west of building 60-01 and parking for the Taxi service is located on the SW section of the building.
  Potential pollutants include: leaks of petroleum products, oils, hydraulic fluid, antifreeze, gasoline/fuels.

- **Heavy Equipment Parking and Lower Repair Bay:** the lower repair bay is located on the NW section of the building and heavy equipment parking/staging is directly west of the bay on an unpaved area. *Potential pollutants include: leaks of petroleum products, oils, hydraulic fluid, antifreeze, gasoline/fuels.*

- **Metal Parts Rack:** is located on the NW side of the lower repair bay and holds a variety of metal parts needed for heavy equipment. *Potential pollutants include: metal residuals.*

Solid Waste Management Units (SWMUs) and Areas of Concern (AOC)

Three SWMUs were located within the fenced boundary of the facility. Two of the SWMUs: **60-019(a)** and **60-003** have been approved for No Further Action (NFA) by the State (NMED) and have been removed from the LANL/DOE RCRA permit.

The remaining PRS, **60-007(b)** is covered by the NPDES Stormwater Individual Permit (IP) # NM0030759. (SWMU) 60-007(b) is a storm drainage ditch at TA-60 that starts approximately 600 ft from a paved area directly north of the motor pool building (building 60-1) and extends to the bottom of Sandia Canyon. Two parking lots located east of building 60-1 drain to a ditch that eventually joins the SWMU 60-007(b) drainage ditch. Other former sources of potential contamination to the ditch are a steam-cleaning pad, a used-oil storage tank, and an oil/water separator. In addition, equipment that used PCB-containing oil was stored on an asphalt area east of building 60-1. The areas of the ditch visibly affected by these sources were remediated in 1986 by removing stained soil down to bedrock. Decision-level data for SWMU 60-007(b) consists of 20 samples collected from 12 locations in 2009. The 2015 supplemental investigation report concluded that the nature and extent of contamination have been defined and no further sampling for extent is warranted. This site does not pose a potential unacceptable risk or dose under the industrial, construction worker, or residential scenarios and poses no unacceptable ecological risk.

2.2 Spills and Leaks

Past Spills and Leaks

Spills and leaks for the past 3 years (2015-2017) are summarized below. Completed spill reports can be found in Appendix G of the SWPPP. Spills and leaks that occurred prior to 2015 will be documented in previous SWPPP revisions.

Date	Description	Outfall(s) Affected
September 2017	~50 gallons of water and calcium chloride from inside a heavy equipment tire discharged when the tire was being removed from its wheel. There was also evidence of some particulates from inside the tire discharged with the water. The water flowed through the upper east parking lot and reached the basecourse on the east side yard, but did not leave the site. Site personnel immediately used absorbent to contain the release and removed as much of the discharged liquid as possible. The top layer of the impacted soil/basecourse was also removed. Additionally, a street sweeper was brought on site to collect and remove as much of the particulates transported from the discharge in the parking lot as possible. MicroBlaze was applied to the impacted asphalt.	None
December 2016	A John Deer grader was being taken into the shop for repairs when a valve broke, releasing 2-4 gallons of hydraulic fluid. The fluid leaked from the east staging area to the front middle bay of the shop. The spill was cleaned up immediately with floor dry absorbent and MicroBlaze.	None
November 2016	A refueling truck (with a defective pump valve) leaked ~1 gal of diesel fuel onto the southern end of the upper HE lot. The spill was immediately cleaned up with floor dry absorbent.	None
October 2016	A timber mulcher (undergoing repairs) had a defective tank valve and spilled hydraulic fluid into the shop. The spill was contained and cleaned up in the bay and waste was drummed for disposal.	None
September 2016	A mobile drug testing unit (awaiting repairs) had a fuel tank leak in the upper east lot. The fuel was immediately cleaned up with floor dry absorbent and the vehicle was taken into the shop for repairs.	None
July 2016	A portable Onan generator (E28493) was overfilled and approximately 1 ½ gallons of diesel fuel leaked out onto the asphalt. Absorbent was applied to the impacted area and was then swept up and contained for disposal. The area was also MicroBlazed.	None
June 2016	During a routine SWPPP inspection, a fire truck (E201094) was found to be leaking oil (1/2 gallon). The truck was taken into the shop to repair. The impacted area was cleaned and MicroBlazed.	None
October 2015	~2-3 gallons of HKI Aluminum Shield roof sealant tipped over in the back of a utility vehicle and was released to the asphalt on the east side of the facility. Workers contacted EM&R and EPC who responded to the spill. The material cured on the asphalt and became immobile. A visual inspection was performed shortly after the release during a precip event but there was no sign that the material had an impact on stormwater.	None
September 2015	HES personnel reported that a street sweeper was leaking oil onto the asphalt at the facility. An oil trail to the sweeper was evident which indicated it had been leaking on a jobsite at TA-55.	None

Potential Spills and Leaks

Table 1: Areas of Site Where Potential Spills/Leaks Could Occur:

LOCATION	OUTFALLS (see site map)
Heavy Equipment Parking/Storage (general)	021, 022, 023, 024, 025
Lower East Bays (crushed oil filter storage area, bulk oil/chemical storage, used oil, pressure wash)	Oil Water Separator-OWS
Lower West Parking Lots and Bays (heavy equipment staging/repairs, vehicle parking)	024
Upper West Parking Lots (heavy equipment staging, vehicle parking)	025
Upper East Lot and Bays (used oil, NM special waste storage area, vehicle/equipment staging and storage, trash dumpsters)	021, 022
Lower East Lot (various material storage, craft storage, metal and wood scrap roll-off bins)	023

In the event of any future spill or leak at any of the facility areas, a spill report, documenting the occurrence and the nature of the spill or leak, will be completed. The spill report will be filed promptly (in Appendix G) upon completion and documentation of the spill clean-up.

The probability of spills or releases at the facility is minimized by the application of good housekeeping procedures and appropriate operational methods. As this facility regularly repairs heavy equipment and vehicles, spill protection is readily available on site. Appropriate response measures for a spill or release of hazardous materials are applied when addressing spills. The specific spill response and cleanup procedures will depend on the nature of the spilled material. Specific spill response and reporting procedures for LANL are listed in Section 3.4 of this SWPPP.

2.3 Non-Stormwater Discharges Documentation

There are no NPDES permitted non-stormwater discharges or unpermitted outfalls associated with the facility. Potential sources of non-stormwater discharges at the facility include the testing of fire hydrants in the area. All wastewater drainage within the building discharges to the SWWS. The vehicle steam cleaning/wash area located at the NW section of the upper east shop discharges to a trench drain, which is connected to the OWS and the SWWS.

The “Non-Stormwater Discharge Assessment and Certification” is located in Appendix D. This form certifies that all stormwater outfalls have been evaluated for the presence of non-stormwater discharges. The form will be updated whenever a change in possible non-stormwater discharge is determined.

2.4 Salt Storage

There are no salt storage areas located at the facility.

2.5 Sampling Data Summary

Sampling of stormwater runoff from the facility is currently performed by the EPC-CP, Water Quality and Stormwater Group. Samples are collected at automated monitoring station **MSGP02201** at Outfall 022. All monitoring requirements for the facility are listed in Section 4.6.3 of the SWPPP.

Results from sampling data for the current permit term (MSGP 2015) will be kept on file in Appendix H of this SWPPP. Sampling data from the previous permit term (MSGP 2008) are provided in Appendix H1.

A sampling data summary for the current permit term is also provided below:

2017
Impaired Waters Monitoring:
Outfall 022: on 4/01/17 the sample exceeded the New Mexico Water Quality criterion for Dissolved Copper and Total Recoverable Aluminum.

Discontinued Monitoring: n/a

2016
Impaired Waters Monitoring:
Outfall 022: on 5/15/16 the sample exceeded the New Mexico Water Quality criterion for Dissolved Copper and on 6/04/16 for Total Recoverable Aluminum.

Discontinued Monitoring:
Outfall 022: Impaired waters monitoring for Total Aroclors (PCBs) and Thallium was discontinued.

SECTION 3: STORMWATER CONTROL MEASURES

3.1 Minimize Exposure

Control measures at the facility are designed to minimize the potential for spills, releases, exposure of materials, or any other events that could adversely affect the quality of water and sediment that may be transported out of the area by stormwater runoff.

Proper material management and storage minimize the potential for exposure of precipitation and runoff to potentially hazardous materials. Containers that could be susceptible to spillage or leakage will be plainly labeled (e.g., “Used Oil,” “Spent Solvents,” etc.). Most operations are performed within enclosed structures, and materials are stored indoors or outdoors in enclosed storage sheds. The potential for exposure of industrial materials to stormwater is limited primarily to vehicle parking and staging in the west lots or the upper east lot; or during the transfer of materials in the upper or lower east lots. Heavy equipment repair and maintenance is performed inside the repair bays. Adequate secondary containment is provided for outdoor storage units containing potentially hazardous materials.

Specific Structural Controls Description:

- **Covered and Enclosed Structures:** Industrial materials are kept inside the Heavy Equipment shop or enclosed storage sheds when at all possible.

- **Spill Control:** Industrial areas are frequently inspected for leaks and checked during monthly inspections. Oil absorbent and Micro-Blaze is available in the Heavy Equipment Shop for immediate containment and clean-up if needed.

- **Oil Water Separator (OWS):** The oil water separator filters out oil residuals from the lower east repair bays, the bulk storage units, and vehicle washing area at the NE section of the building. The OWS drains filtered water to the sanitary sewer system. OWS preventive maintenance procedures are described in Section 3.3 of this SWPPP.

- **Petro Barriers:** Are installed at the grated storm drains at the northeastern boundary of the upper east lot. The barriers filter out oil residuals from the upper east lot before stormwater is discharged to the outfalls below. PM procedures for the Petro Barriers are described in Section 3.3 of this SWPPP.

- **Secondary Containment Units:** Used oil storage areas and bulk oil and products for vehicle maintenance (i.e. antifreeze, diesel exhaust fluid, window washing fluid) are kept in secondary containment units to minimize releases should a spill or leak occur.

- **Metal Storage Racks:** metal piping and materials are kept on metal storage racks off the ground. Metal materials that are subject to rust are kept covered with heavy duty tarps.

- **Covers for Trash Dumpsters and Recycle Bins:** Trash dumpsters and metal/wood recycle bins located at the facility are normally kept closed or covered when not in use and are emptied on a regular basis. Dumpsters will be kept in good condition and will be repaired or replaced if needed by Roads & Grounds.

3.2 Good Housekeeping

Good housekeeping practices specifically applicable to the prevention of stormwater contamination include the following measures:

All site areas exposed to precipitation are walked down during daily operations and monthly routine inspections to ensure that the grounds are kept in an orderly condition. The outdoor metal storage areas are

inspected to ensure all piping and rustable metal is off the ground on storage racks. Heavy equipment and vehicle staging/parking areas are inspected for leaks or spills as well as storage areas containing oil-filled equipment and secondary containment units. The entire site, including bay areas and outfalls, are inspected for floatable debris, garbage, waste and all other potential pollutants. Dumpsters and roll-off recycle bins will be emptied on a weekly or as-needed basis by Roads and Grounds. Spill clean-up procedures will be followed as listed in Section 3.4 of this SWPPP.

3.3 Maintenance

Control measures at the facility will be kept in effective operating condition by the implementation of scheduled preventive maintenance, standard operating procedures (SOPs), engineering guidance, and manufacturer's specifications as applicable. If control measures need to be replaced or repaired to maintain compliance with the 2015 MSGP, necessary modifications will be made according to the timelines specified in the Corrective Action requirements of Section 5.4 of this SWPPP.

Deficient items identified during monthly or other routine facility inspections will be documented on inspection forms and entered into the Corrective Action Reports (CARs) database. The CAR will remain open until proper maintenance or corrective action has been completed. CAR information along with documentation of maintenance/repair of control measures will be kept on file in Appendix J of the SWPPP.

Trench Drain and Envirologix HQB Oil-Water Separator (OWS) PM:

- The trench drain connecting to the OWS will be inspected weekly by HES Personnel.
- The trench drain will be pumped and cleaned out once it reaches half of its holding capacity.
- Jet-rodding of the OWS inlet pipe will be performed if the inlet is clogged.
- Mesa Oil subcontractor will pump out oily water from the OWS each month.
- Navarro subcontractor will remove sludge from the OWS on a semi-annual schedule.

The OWS maintenance logs will be kept in appendix J of this SWPPP. The OWS Operations and Maintenance manual can be found in Appendix L.

Petro Barriers PM:

- Petro Barriers will be inspected monthly.
- Filters will be cleaned when clogged and replaced if no longer functional.
- Media will be replaced per manufacturer's specifications or sooner if a malfunction is observed.

3.4 Spill Prevention and Response

Spills, leaks, or releases will be prevented and minimized by the application of good housekeeping procedures, best management practices (BMPs), and engineering/administrative controls. Examples of these measures include storing equipment with drip pans and inspecting regularly for leaks. Containers that could be susceptible to spillage or leakage will be plainly labeled (e.g., "Used Oil," "Spent Solvents," etc.) to encourage proper handling and facilitate rapid response if spills or leaks from these containers should occur. Spill cleanup materials are located in TA-60-01 and are readily accessible to HES personnel in the event of a spill or leak.

In general, the approach to spill cleanup is to secure the spill area and contact the Operations and Maintenance Coordinator (OMC) and/or the Security and Emergency Operations (SEO) Emergency Management & Response (EM&R) Team (if necessary). For incidental releases, MicroBlaze or dry absorbents can be used and the contaminated absorbents disposed of properly.

The SEO or Facility Duty Officer shall report all spills or releases. All uncontrollable spills or releases must be reported to the SEO/EM&R Office or Facility Duty Officer by calling 667-6211 or, after hours, at 667-7080.

If fire or explosion is present, or if the potential for such exists, the situation must be reported by dialing 911 or by activating a fire pull box. In the event of a spill, the SEO/EM&R Office will determine appropriate cleanup procedures and will notify the individuals or organizations responsible for completing spill reports or fulfilling regulatory reporting requirements.

Spills are reported to EPC-CP for documentation and reporting purposes. The completion of a spill report (Appendix G) is required in the event of a spill. The spill report will be submitted to EPC-CP personnel and handled according to internal spill record keeping procedures. Spills may be "reportable" (requiring external agency notification) depending on the nature of the spilled material and the location of the release. External agency notification may consist of verbal or written notification to the National Response Center, Environmental Protection Agency Region VI, or the New Mexico Environment Department (NMED). The determination for the type of reporting will be made by the SEO/EM&R Office, FOD and EPC-CP in accordance with Laboratory and DOE policies and federal and state regulatory reporting requirements. Copies of internal spill reports are maintained by the responsible organization.

Additional EPC-CP procedures (documents provided in Appendix L) for spill reporting and response include:

- ENV-CP-QP-007, Spill Investigations: http://int.lanl.gov/training/v-courses/41819/41819.pdf; and
- ENV-DO-QP-101.3, Environmental Reporting Requirements for Releases or Events: http://int.lanl.gov/training/adesh/42415/42415.pdf

3.5 Erosion and Sediment Controls

90% of the outside surface region associated with the facility, contains structures or is paved with asphalt or concrete; therefore, erosion and sediment transport from the site itself is unlikely. BMPs are installed at outfalls to function as flow dissipation devices, which minimize the potential for erosion at facility discharge points.

- **Stabilized Drainage Channels at Outfalls**: the primary drainage channel for Outfall 022 and 021 is stabilized with rip-rap to prevent erosion and minimize sedimentation in the channel. Outfall 024 consists of an asphalt run-down and Outfall 025 contains a drainage channel reinforced with rock check dams. Outfall 023 is a grated storm drain that discharges to a corrugated metal culvert and rock-lined channel at the eastern facility boundary.
- **Gravel Bags/Ecobloks:** are used at outfall inlets and other areas to minimize sedimentation to outfalls and direct stormwater for appropriate drainage.

3.6 Management of Runoff

The majority of stormwater runoff from outdoor industrial areas at the facility is captured by one of the 5 outfalls and associated drainage areas. The outfalls typically consist of stabilized drainage channels or grated storm drains that discharge to culverts (see Section 3.5). Other specific run off controls are listed below:

- **Metalloxx Wattles:** These wattles are used to filter out metal residuals in stormwater runoff. There are currently wattles located before discharge points at Outfall 022.
- **Gravel Bags & Eco-Bloks:** Function as flow dissipation devices for Outfalls 021, 022, 023, and 024. They also minimize sediment transport in runoff and direct runoff to stabilized channels.
- **Asphalt curbing and berming:** is utilized to direct runoff to designated drainages and outfalls.

- **Secondary Containment Units:** Used oil storage areas and bulk oil and products for vehicle maintenance (i.e. antifreeze, diesel exhaust fluid, window washing fluid) are kept in secondary containment units to minimize releases should a spill or leak occur.

- **Sediment Retention Basin:** is located at the northeast edge of the upper east lot. The basin is constructed of rip-rap and is used to allow sediments to settle out of stormwater before discharge to Outfall 022.

- **Petro Barriers:** are installed in the grated storm drains at the southeastern section of the upper east lot. These barriers contain oil absorbing media that filter out petroleum products from stormwater runoff.

- **Envirologix HQB Oil Water Separator (OWS):** is located in the upper northeast section of the east lot. The OWS receives stormwater and wash water from the trench drain east of the shop. The OWS is designed to separate both heavy oils (asphalt and grease) and light oils (motor oil) from wash water and stormwater runoff and also separates sand and gravel from influent. The OWS discharges to SWWS, which prevents discharge to the environment.

See site map in Figure B-3, Appendix B or Outfall information provided in Sections 1.5 and 4.2 of this SWPPP for more detailed information on drainage patterns and control measures associated with this facility.

3.7 Salt Storage Piles or Piles Containing Salt

See Section 2.4.

3.8 Dust Generation and Vehicle Tracking of Industrial Materials

90% of the surface region associated with the facility (except for vegetated areas adjacent to the facility boundary) either contains structures or is paved with asphalt or concrete. Therefore, dust generation at the facility is minimal and dust suppression is not typically required. Items that are frequently removed from the facility primarily include heavy equipment and government vehicles, which are kept on paved parking areas or roadways; and Materials of Trade transported by craft workers to and from jobsites. Raw industrial materials are not transported to/from the site.

3.9 MSGP Sector-Specific Non-Numeric Effluent Limits

Part 8 of the 2015 MSGP identifies sector-specific requirements for **Sector P – Land Transportation and Warehousing** in addition to the numeric limits outlined in this Section. The facility must comply with requirements associated with the primary industrial activities described in Section 1.3 of this SWPPP and any co-located industrial activities as defined in Appendix A of the 2015 MSGP. The sector specific requirements only apply to those areas of the facility where the sector-specific activities occur.

The following Sector-Specific Non-Numeric Effluent Limits are addressed at this facility:

- **Vehicle and Equipment Storage Areas:** See sections 3.1 - 3.8 for specific controls in these areas.
- **Material Storage Areas:** See sections 3.1 - 3.8 for specific controls in these areas.
- **Employee Training:** See section 4.5 for employee training requirements.

3.10 Numeric Effluent Limitations Based on Effluent Limitations Guidelines

The TA-60-01 Heavy Equipment Shop is classified under **Sector P- Land Transportation and Warehousing** and does not meet the industrial category requirements for effluent monitoring as listed in Part

2.1.3 *(Table 2-1 Applicable Effluent Limitations Guidelines)* of the 2015 MSGP. Benchmark monitoring is also not required at the facility.

3.11 Water Quality Based Effluent Limitations and Water Quality Standards

Impaired Receiving Waters/TMDLs

Impaired waters monitoring is performed annually at the facility as listed in Section 4.6.3 of this SWPPP. The pollutants sampled can change yearly based on the requirements of the MSGP. The table in Section 4.6.3 lists the current year's (2017) sampling requirements and parameters.

Stormwater from the TA-60-01 Heavy Equipment Shop discharges to Sandia Canyon. Certain stream reaches within Sandia Canyon have been identified as impaired waters by the NMED Surface Water Quality Bureau (SWQB). According to the 2014-2016 State of NM Clean Water Act 303b/305b Integrated Report and Final List of Assessed Surface Waters, pollutants causing the impairment are listed as: *Gross Alpha, Aluminum, PCB (Aroclors), Copper, and Thallium*. Primary potential pollutant sources have been identified as post development erosion/sedimentation and urban runoff (NMED 2014). EPA has not yet approved or established TMDLs for Sandia Canyon.

SECTION 4: Schedules and Procedures

4.1 Good Housekeeping

See Section 3.2 of this SWPPP.

4.2 Maintenance

See Section 3.3 of this SWPPP. Specific maintenance documentation (i.e. PM's/SOPs/Maintenance Logs, etc.) if applicable, will be provided in Appendix J or L of this SWPPP.

4.3 Spill Prevention and Response Procedures

See Section 3.4 of this SWPPP. All referenced procedures will be provided in Appendix L of this SWPPP.

4.4 Erosion and Sediment Control

See Section 3.5 of this SWPPP.

4.5 Employee Training

Employee training is essential to effective implementation of the SWPPP. The goals for the training program are to ensure that employees are more capable of preventing spills, responding safely and effectively to an accident when one occurs, and recognizing situations that could lead to stormwater contamination.

Per section 2.1.2.8 of the 2015 MSGP, training relevant to the SWPPP is required for all operational workers at the facility who work in areas where industrial materials or activities are exposed to stormwater (MSGP sites); managers and supervisors who are responsible for implementing activities necessary to meet the conditions of this permit (e.g., inspectors, maintenance personnel); and all members of the PPT. Training provided and assigned to these personnel cover both the specific control measures used at the facility; along with monitoring, inspection, planning, reporting, and documentation requirements described in this SWPPP. Training is conducted at least annually.

Training activities are documented in accordance with LANL's Training Standards. In cases where training is formalized enough to require specific curricula and reoccurrence, the training activity will be recorded in LANL's official U-TRAIN database. Informal briefings, such as those included in group safety meetings are not typically recorded in U-TRAIN. Sign-in sheets are used to document attendance and will be kept on file in Appendix I of this SWPPP.

The topics in this SWPPP that are covered in the latest version of LANL's training (ENV-CP-QAPP-MSGP, Stormwater Multi-Sector General Permit for Industrial Activities Program) include the following:

- Overview and goals of the SWPPP;
- Spill response and cleanup procedures, good housekeeping, maintenance requirements, and material management practices to prevent stormwater pollution;
- The location of all controls on the site required by this permit and how they are to be maintained;
- The proper procedures to follow with respect to the permit's pollution prevention requirements; and
- When and how to conduct inspections, record applicable findings, and take corrective actions.
-

4.6 Stormwater Monitoring

Analytical monitoring comprised of impaired waters monitoring will be performed on stormwater discharges from the site. Monitoring events will be from storm events that result in an actual discharge from the site and that follow the preceding measurable storm event by at least 72 hours (3 days). For runoff from snowmelt, the monitoring will be performed at a time when a measurable discharge from the site occurs.

Monitoring will be conducted according to test procedures approved under 40 CFR Part 136. Runoff samples will be collected by taking a minimum of one grab sample from a discharge, collected within the first 30 minutes of a measurable storm event. If it is not possible to collect the sample within the first 30 minutes of a measurable storm event, the sample will be collected as soon as practicable after the first 30 minutes and documentation will be kept with the SWPPP explaining why it was not possible to take samples within the first 30 minutes.

4.6.1 Monitoring Schedule

Impaired waters monitoring will be performed on an annual basis with a sample collected in the period between April 1 and November 30. Benchmark monitoring is not applicable for this facility as it is classified as Sector P. Quarterly visual inspection/monitoring procedures are described in Section 5.2.

LANL is located in a high elevation, semi-arid climate where the majority of rainfall occurs during a period between July and September. Freezing conditions that would prevent runoff from occurring for extended periods may also occur during the winter months. If adverse weather conditions prevent the collection of samples according to the relevant monitoring schedule, a substitute sample will be collected during the next qualifying storm event or as soon as practical.

Monitoring occurs at automated sampling station **MSGP02201** (Outfall 022) as described in Section 1.6. Discharge from the facility is east to Sandia Canyon (impaired waters), which is a tributary of the Rio Grande located approximately 10 miles east of the facility.

4.6.2 Substantially Identical Outfalls

Outfalls 021, 023, 024 and 025 are “substantially identical” to Outfall 022 based on common potential pollutant sources, drainage areas, activities within the drainage areas and general site topography and characteristics. Outfall locations are shown on the site map provided in Appendix B (Figure B-3).

4.6.3 Monitoring Requirements and Procedures

Impaired Waters monitoring is required annually for the TA-60-01 Heavy Equipment Shop. The 2015 MSGP Sampling and Analysis Plan proposes that Outfall 022 be sampled for aluminum, gross alpha, copper, thallium, and PCBs (Aroclors). The pollutants to be sampled can change yearly based on the requirements of the MSGP. The Sampling and Analysis plan will be updated each year.

Table 3 lists the current Summary of Monitoring Requirements and LANL’s applicable stormwater monitoring procedures (which also includes procedures for gathering storm event data). The monitoring values have been modified to reflect New Mexico facility water quality standards and are based on the lowest water quality standards from the *Standards for Interstate and Intrastate Surface Waters* (as approved on June 5, 2013), 20.6.4.900 NMAC; and as set forth in section 9.6.2.1 of the 2015 MSGP.

Table 3: Summary of Monitoring Requirements

Monitoring Type	Location	Parameters / Monitoring Concentration		Schedule
Impaired Waters	**MSGP02201**	Aluminum	681 ug/L	Annual

	Outfall 022 Sandia Canyon	Gross Alpha, adjusted	15 pCi/L	
		Copper	*6 ug/L	
		Thallium, dissolved	0.47 ug/L	
		Total Aroclor (PCB in Water Column)	0.2 ug/L	

***Copper parameter based on hardness value of 57 mg/L.**

Monitoring Procedures (see Appendix L for documents):

- ENV-CP-QP-045, *Installing, Setting up, and Operating ISCO Samplers for the MSGP:* http://int.lanl.gov/training/env-courses/55962/env-cp-qp-045.pdf
- EPC-CP-QP-048, *Processing MSGP Stormwater Samples:* http://int.lanl.gov/training/adesh/56595/56595.pdf
- EPC-CP-QP-047, *Inspecting Stormwater Runoff Samplers and Retrieving Samples for the MSGP:* http://int.lanl.gov/training/adesh/56594/56594.pdf
- ENV-CP-QAPP-MSGP, *Quality Assurance Project Plan for the Stormwater MSGP:* http://int.lanl.gov/training/env-courses/43337/env-cp-qapp-msgp.pdf

4.6.4 Monitoring Results

Monitoring will continue annually for constituents associated with impaired waters until that constituent is no longer detected in stormwater samples. If the impaired water constituent exceeds the New Mexico Water Quality criterion, the Pollution Prevention Team and EPC-CP personnel will:

- Review the selection, design, installation, and implementation of control measures to determine if modifications are necessary to meet the effluent limits,
- Implement the necessary modifications within the timeframe specified for corrective action, and
- Continue annual monitoring of the constituent.

4.6.5 Recordkeeping

For each monitoring event, except snowmelt monitoring, the following information will be recorded and maintained through field data sheets, LANL database systems, and Discharge Monitoring Records:

- The date, exact place, and time of sampling or measurements;
- The date and duration (in hours) of the rainfall event
- Rainfall total (in inches) for that rainfall event
- Time (in days) since the previous measurable storm event
- The individual(s) who performed the sampling or measurements;
- The date(s) analyses were performed

- The individual(s) who performed the analyses;
- The analytical techniques or methods used; and
- The results of such analyses.

For snowmelt monitoring, all information except rainfall event durations, totals, and time since previous event will be included. Additionally, all records of monitoring information, including all calibration and maintenance records will be maintained for a minimum period of at least three years from the date the permit expires.

SECTION 5: INSPECTIONS AND CORRECTIVE ACTIONS

5.1 Routine Facility Inspection Procedures

Routine inspections at this facility will be conducted and documented monthly and per ENV-RCRA-QP-022, MSGP Stormwater Corrective Actions: http://int.lanl.gov/training/env-courses/54892/env-rcra-qp-022.pdf (document provided in Appendix L).

At least once each calendar year, the routine inspection will be conducted during a period when a stormwater discharge is occurring. The inspection will be performed by a qualified member of the Stormwater PPT (typically the DEP or EPC-CP Technical Lead). The 2015 MSGP consolidates the different and separate documentation requirements in the Comprehensive Site Inspection Procedures and Routine Facility Inspection Procedures from the 2008 MSGP. EPC-CP will perform at least one routine inspection per year in order to evaluate corrective action status for the Annual Report requirements.

Routine inspections will evaluate the following areas, at a minimum:

- Areas where industrial materials or activities are exposed to stormwater;
- Areas identified in the SWPPP and those that are potential pollutant sources;
- Areas where spills and leaks have occurred in the last three years;
- Discharge points(outfalls/SIOs); and
- Control measures used to comply with the effluent limits contained in this permit.
- Specific areas of the facility to be inspected are described in Section 2.1.

During routine inspections the following must be examined and looked out for:

- Industrial materials, residue or trash that may have or could come into contact with stormwater;
- Leaks or spills from industrial equipment, drums, tanks and other containers;
- Offsite tracking of industrial waste or materials, or sediment where vehicles enter or exit the site;
- Tracking or blowing of raw, final or waste materials from areas of no exposure to exposed areas; and
- Control measures needing maintenance, repairs or replacement.

The Stormwater PPT member performing the inspection will document the inspection and will note potential storm water pollution problems that were encountered on the routine facility inspection form. Any required corrective actions identified during the inspection will be addressed in accordance with Section 5.4 *Corrective Actions Process* of this plan. Facility personnel or the DEP may also perform daily, weekly, or other periodic facility surveys in between monthly routine inspections to further ensure compliance with the SWPPP. The routine inspection form can be found in Appendix F of this SWPPP and meets the requirements listed in the 2015 MSGP (Section 3.1.2.).

5.2 Quarterly Visual Inspection Procedures

Visual inspections are conducted in accordance with EPC-CP-QP-064, MSGP Stormwater Visual Assessments: http://int.lanl.gov/training/adesh/56595/56595.pdf (document provided in Appendix L).

Once each quarter (April 1-May 31, June 1-July 31, August 1-September 30, October 1-November 30) a sample and visual assessment must be collected and performed at each outfall. The visual assessment will be conducted by a qualified member of the Stormwater PPT (DEP or EPC-CP Technical Lead). The visual assessment must be:

- Of a sample in a clean, clear colorless glass or plastic container and examined in a well-lit area;

- On samples collected within the first 30 minutes of an actual discharge from a storm event or as soon as practical thereafter. Or document why it was not possible to collect the sample within the first 30 minutes (i.e. adverse conditions, not enough flow, etc.)
- Conducted at least 72 hours since the last storm event; or document that the 72-hour period is representative of your local storm events during the sampling period.

The visual assessment will inspect for the following water quality characteristics: color, odor, clarity, floating solids, settled solids, suspended solids foam, oil sheen, and other obvious indicators of stormwater pollution.

Exceptions to visual assessments:

- Document rationale if a visual assessment is unable to be collected in a quarter (no precipitation event or adverse conditions, etc.);
- Perform an additional assessment during the next qualifying storm event if unable to perform in a particular quarter; and
- Perform one quarterly assessment during snow melt discharge (taken during a measurable discharge from the site).

For facilities with significantly identical outfalls, quarterly visual assessments may be performed at only one of the outfalls; provided that you perform visual inspections on a rotating basis at each outfall.

The Stormwater PPT member performing the visual assessment will document potential stormwater pollution problems that were observed during the assessment on the Quarterly Visual Assessment form (Appendix F). Any required corrective actions identified during the assessment will be addressed in accordance with Section 5.4 *Corrective Actions Process* of this plan.

5.3 Corrective Actions Process

When any of the following conditions occur or are detected during an inspection, monitoring or any other means, this SWPPP (e.g., sources of pollution; spill and leak procedures; non-stormwater discharges; the selection, design, installation and implementation of control measures) will be reviewed and revised (as appropriate) so that the effluent limits of the 2015 MSGP permit are met and pollutant discharges are minimized:

- An unauthorized release or discharge (e.g., spill, leak, or discharge of non-storm water not authorized by this or another NPDES permit to a water of the U.S.) occurs at the facility;
- A discharge violates a numeric effluent limit;
- Control measures are not stringent enough for the discharge to meet applicable water quality standards or non-numeric effluent limits;
- An inspection identifies that a required control measure was never installed, was installed incorrectly or is not being properly operated or maintained; and
- Whenever a visual assessment shows evidence of stormwater pollution.

If the event triggering corrective action is associated with an outfall that is identified as an SIO, the review of the need for action must encompass all related SIOs.

Immediate Actions: If a corrective action is required, immediate steps must be reasonably taken to minimize or prevent discharges from occurring (i.e. spill clean-up, scheduling repairs) until a permanent solution (if needed) can be implemented. Immediate action means all reasonable steps must be taken the same work day or no later than the following work day (when it is too late in the day to take corrective action).

Subsequent Actions: If further corrective actions are required (e.g. installing or making operational a new or modified control, completing repairs, ordering BMPs) they must be completed by the next storm event, if possible or within 14 calendar days (from initial discovery). If it is infeasible to complete corrective actions

within 14 days, documentation of why it is infeasible must be provided in the SWPPP. This documentation must also include a timeframe and schedule for completion of the work, which must be completed no later than 45 days (from initial discovery). If time needed to make corrective actions will exceed 45 days, EPA must be notified and provided a justification of why actions will exceed the timeframe; and a minimal amount of additional time to complete the work may be approved.

Upon discovery, required corrective actions will be documented by the DEP (or EPC-CP) and entered into the Corrective Action Database (CAR). The action will be kept open in the database until the issue has been resolved. Documentation of Maintenance and Repairs of Control Measures (BMPs) will be kept in Appendix J1 of this SWPPP. Where corrective actions result in changes to procedures or controls documented in this SWPPP, modifications to the SWPPP will be made accordingly within 14 days of completing the corrective action(s).

5.4 Conditions Requiring Review to Determine if Modifications Are Necessary

If any of the following conditions occur, a review of the selection, design, installation, and implementation of control measures will be performed to determine if modifications are necessary to meet the effluent limits in this permit:

- Construction or a change in design, operation, or maintenance at the facility significantly changes the nature of pollutants discharged in stormwater from the facility, or significantly increases the quantity of pollutants discharged; or
- An impaired water constituent exceeds the NM Water Quality criterion (see Section 4.6.3).

If a review identifies any necessary modifications, they will be performed following the corrective action process identified in Section 5.4 above.

SECTION 6: DOCUMENTATION TO SUPPORT ELIGIBILITY CONSIDERATIONS UNDER OTHER FEDERAL LAWS

6.1 Documentation Regarding Endangered Species

The Los Alamos National Laboratory (LANL) Threatened and Endangered Species Habitat Management Plan (HMP) was prepared to provide for the protection of federally listed threatened and endangered species and their habitats at LANL. The HMP was designed to be a comprehensive landscape-scale management plan that balances the current operations and future development needs of LANL with the habitat requirements of threatened and endangered species. It also facilitates DOE compliance with the Endangered Species Act and related federal regulations. The HMP received concurrence from the U.S. Fish and Wildlife Service (USFWS) and was first implemented in 1999. All changes to the HMP, such as adding new species or changing requirements, are assessed in a new consultation with the USFWS before being implemented. The HMP provides guidance by species for different types of activities allowed without further review by the USFWS.

Currently, the only federally-listed species that have habitat or occur at LANL are the Southwestern Willow Flycatcher (Empidonax trailii extimus), Jemez Mountains Salamander (Plethodon neomexicanus), and Mexican Spotted Owl (Strix occidentalis lucida). Suitable habitats for these species, along with a protective buffer area surrounding the habitats, have been designated as Areas of Environmental Interests (AEIs). An AEI consists of a core area that contains important breeding or wintering habitat for a specific species and a buffer area around the core area. The buffer protects the core area from disturbances that would degrade the value of the core area to the species.

The HMP includes eco-risk analyses which account for any industrial facility's stormwater discharges, allowable non-stormwater discharges, and stormwater discharge-related activities. In addition, the Site-wide Environmental Impact Statement (SWEIS) biological assessment (BA) covered the continuation of Laboratory operations and included outfalls.

As determined by earlier evaluations, stormwater discharges, allowable non-stormwater discharges, and stormwater discharge-related activities from LANL MSGP locations are not likely to adversely affect any species that is federally-listed as endangered or threatened under Criterion D Section iii, the ESA, and will not result in the adverse modification or destruction of habitat that is federally-designated as "critical habitat" under the ESA. New activities are evaluated to determine if they will have an impact to any species. If an activity can be completed within the guidelines of the HMP it can go forward as scheduled; however, if the activity can not comply with the guidelines, the HMP requires that a project-specific BA be prepared for the action and go through the consultation process with the USFWS.

The LANL HMP and other applicable critical habitat documentation can be found in Appendix K of this SWPPP.

6.2 Documentation Regarding Historic Properties

In August, 2015 and December 2008, the Cultural Resources Team (using GPS spatial data as well as conducting visual inspections), reviewed the Laboratory industrial sites (see list below) and their associated outfalls and monitoring stations subject to the 2015 Multi-Sector General Permit (Permit #NMR050000) for effects on historic properties. All of these sites were found to be undertakings of no effect and in compliance with Section 106 of the National Historic Preservation Act (i.e., Criterion B).

- TA-3-22 Power and Steam Plant
- TA-3-38 Metals Fabrication Shop
- TA-3-38 Wood Shop
- TA-3-39 and 102 Metal Shop
- TA-3-66 Sigma Complex

- TA-60 Asphalt Batch Plant
- TA-60-1 Heavy Equipment Yard
- TA-60 Material Recycle Facility
- TA-60 Roads and Grounds
- TA-60-2 Warehouse
- TA-54 Area L
- TA-54 Area G
- TA-54 Maintenance Facility West
- TA-54 RANT

6.3 Documentation Regarding NEPA Review

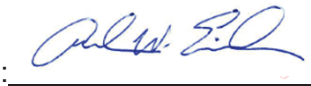
The Final Site-Wide Environmental Impact Statement for the Operation of Los Alamos National Laboratory (DOE/EIS-0380) was issued in May 2008, and a Record of Decision in September 2008. Stormwater issues and associated pollution prevention requirements and activities at LANL are analyzed in Chapters 4 and 5 of the 2008 Site-Wide EIS. These activities are integrated into environmental reviews on a project-specific level through LANL's Integrated Review Tool (IRT), which incorporates both the Excavation Permit (EX-ID) and Permit Requirements Identification (PR-ID) process. Stormwater issues are identified and pollution prevention activities are implemented during the design and construction phases of all LANL projects, and as part of facility operations, including routine maintenance. LANL staff monitors stormwater pollution prevention compliance at the MSGP sites in accordance with Section 4.6 *Stormwater Monitoring* of this plan. Corrective actions are taken as necessary as described in Section 5.3 *Corrective Actions Process* of this plan.

SECTION 7: SWPPP CERTIFICATION

STORMWATER POLLUTION PREVENTION PLAN
TA-60-01 Heavy Equipment Shop
Los Alamos National Laboratory

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature:  Digitally signed by Andrew W Erickson
DN: c=US, o=U.S. Government, ou=Department of Energy, ou=Los Alamos National Laboratory, ou=People, serialNumber=141880, cn=Andrew W Erickson
Date: 2018.01.26 16:12:11 -07'00'

Date: 1/26/2018

Andrew W. Erickson

Facility Operations Director

Utilities and Institutional Facilities

SECTION 8: SWPPP MODIFICATIONS

The SWPPP will be modified by the PPT and reviewed by the EPC-CP Technical Advisor(s) whenever necessary to address any of the triggering conditions for corrective actions listed in Section 5.4 of this SWPPP to ensure that they do not reoccur; or to reflect changes implemented when a review following the triggering conditions listed in Section 5.4 of this SWPPP indicates that changes to control measures are necessary to meet the effluent limits described in this SWPPP. Changes to this SWPPP document must be made in accordance with the corrective action deadlines defined in Section 5.4 and must be signed and dated in accordance with the signatory requirements listed in Appendix B Subsection 11 (Signatory Requirements) of the 2015 MSGP. A record of amendments to the SWPPP will be tracked in the amendment log located in Appendix E of this SWPPP.

APPENDIX A

Stormwater Pollution Prevention Team Members

Stormwater Pollution Prevention Team Members

Staff Names	Individual Responsibilities
Team/Group Leader: Russell Stone, ESH Manager, Utilities and Institutional Facilities (DESHS-UIS)	Responsible for the management of all environmental, safety, health, and quality programs for the buildings and facilities listed within this Plan. This includes performing oversight and periodic walk downs to ensure implementation of the requirements of the MSGP and this SWPPP including overseeing the assigned duties of other PPT members. The Group Leader is responsible for ensuring that problems noted in inspections are corrected. The Group Leader must also ensure funding is established to cover compliance requirements of the MSGP and this SWPPP.
DEPs: Jillian Burgin (primary), Leonard Sandoval (backup), Utilities and Institutional Facilities (DESHS-UIS)	Responsible for the management of all environmental programs and issues for the buildings and facilities listed within this Plan. The DEP is responsible for training, recordkeeping, and SWPPP revision. The DEP will ensure that all PPT, operations site workers (as appropriate), and applicable supervisors receive annual MSGP and SWPPP training. The DEP will ensure that inspection documents and other required MSGP records relative to the SWPPP are managed in accordance with the permit and established document control procedures and that the SWPPP is kept current. The DEP provides technical and regulatory support to facility personnel regarding implementation of the MSGP and this SWPPP. Lastly, the DEP conducts routine inspections and visual assessments as required by the MSGP. Identified corrective actions from routine inspection are entered into the EPC-CP Corrective Action Report (CAR) database. The DEP is responsible for tracking and updating the status of corrective actions that cannot be implemented immediately.
FOD Manager: Lawrence Chavez, Operations Manager Utilities and Institutional Facilities (UI-DO)	Responsible for managing the operation and maintenance of all aspects of the buildings and facilities listed within this Plan. The Operations Manager shall provide review and ensure coordination with core personnel and the PPT, as appropriate, when tenants within the UI FOD propose a new process or a new site or operation that may be subject to the MSGP.
ENV Core: Holly Wheeler, MSGP Environmental Compliance Programs (EPC-CP)	The MSGP Project Lead is responsible for managing and administering the Multi-Sector General Permit Storm Water Program for all industrial facilities within Los Alamos National Laboratory. The MSGP Project Lead advises and provides guidance to facility personnel on NPDES MSGP regulations/requirements. The MSGP Project Lead also acts as the institutional point of contact for all interactions with the regulatory authority (EPA) and supervises personnel implementing storm water monitoring requirements for the facility.
Facility Staff: Tim Walker-Foster, Maintenance Manager (LOG-HERG) Justin Teo, HES Superintendent (LOG-HERG)	Responsible for day-to-day operations at the facility. Assisting DEPs and EPC with inspections; and implementing, installing and maintaining BMPs at the facility for MSGP compliance. Spill reporting; providing documentation as requested by other team members. Coordinating and attending SWPPP training and briefings as requested by DEP/EPC.

APPENDIX A1

SWPPT Meeting Notes and
Other Documentation Relative to the SWPPP

Burgin, Jillian Elizabeth

From: Wheeler, Holly Lynn
Sent: Friday, June 2, 2017 4:15 PM
To: Burgin, Jillian Elizabeth
Subject: RE: clogged trench drain at the TA-60 Heavy Equipment Yard

Jillian,
Go ahead and put this information in the SWPPP with the tracking tables for both sludge clean out and mesa oil pumping.
Holly

From: Burgin, Jillian Elizabeth
Sent: Friday, June 2, 2017 11:27 AM
To: Wheeler, Holly Lynn <hbenson@lanl.gov>
Cc: Teo, Justin Phillip <jteo@lanl.gov>; Walker-Foster, Tim <jtw@lanl.gov>
Subject: RE: clogged trench drain at the TA-60 Heavy Equipment Yard
Importance: High

Here are the updates, per your comments:

- The trench drain connecting to the OWS will be inspected weekly by HES personnel.
- The trench drain will be pumped and cleaned out by HES personnel once it reaches half of its holding capacity.
- Jet rodding of the OWS inlet pipe will be performed by UIS if inlet is clogged. (This is done under a prioritized FSR. We may be able to keep an annual FSR open for this work during the year?)
- Mesa Oil (under subcontract) will pump out oily water from the OWS each month. (I will reference and add a table in the SWPPP listing the dates of maintenance).
- Navarro (under subcontract) will remove sludge from the OWS on a biennial schedule. (The O&M manual for the OWS specifies biennial removal – this is currently what the contract is being set up for as per manufacturer's requirements – I can make a table for these dates as well and put the manual in the SWPPP. I will also check with the STR and see if the contract schedule can be adjusted if more maintenance is needed.)

-Jillian

From: Wheeler, Holly Lynn
Sent: Thursday, June 1, 2017 5:04 PM
To: Burgin, Jillian Elizabeth <jburgin@lanl.gov>
Subject: RE: clogged trench drain at the TA-60 Heavy Equipment Yard

Jillian,
I am fine with the first two bullets. Regarding the third bullet, the issue is getting UIF to prioritize the work. It took 7 to 8 months (October to June) this time to get the jet router available to clean out the piping to the oil water separator. This is not acceptable and actually not compliant. Logistically, there needs to be an open work order for this maintenance otherwise this will occur again. The third bullet does not address this issue. Regarding the fourth bullet. Put a table in the SWPPP that logs the dates when the oily water is pumped (i.e., when Mesa oil comes out and pumps the oil) and the amount of oil pumped out. This provides proof of maintenance instead of just saying it will be done. Is there a basis that biennial is sufficient for clean out of the sludge? It would seem even the jet routing process

would shove some of the solids down into the oil water separator. Capacity may be compromised if you wait too long to clean the sludge out.
Thanks,
Holly Wheeler

From: Burgin, Jillian Elizabeth
Sent: Thursday, June 1, 2017 11:44 AM
To: Wheeler, Holly Lynn <hbenson@lanl.gov>
Cc: Lemke, Terrill W <tlemke@lanl.gov>; Dolan, Timothy Aloysius <tdolan@lanl.gov>; Teo, Justin Phillip <jteo@lanl.gov>; Walker-Foster, Tim <jtw@lanl.gov>; Stone, Russell <rdstone@lanl.gov>
Subject: RE: clogged trench drain at the TA-60 Heavy Equipment Yard
Importance: High

Holly,

The clean out of the trench drain was completed last Friday (5/26) and the jet rodding of the OWS inlet pipe was completed yesterday (5/31).
According to Justin, the inlet pipe to the OWS is now completely unclogged. If you would like to return to the shop to verify, please let me know and I will schedule a time to meet you there.

Here is what I have written to add into the SWPPP for the OWS maintenance, please let me know if this will be sufficient and edit if needed:

TA-60-1 Heavy Equipment Shop Oil Water Separator (OWS) Maintenance Overview

- The trench drain connecting to the OWS will be inspected weekly by HES personnel.
- The trench drain will be pumped and cleaned out by HES personnel once it reaches half of its holding capacity.
- Jet rodding of the OWS inlet pipe will be performed by UIS if inlet is clogged.
- Mesa Oil (under subcontract) will pump out oily water from the OWS each month.
- Navarro (under subcontract) will remove sludge from the OWS on a biennial schedule.

Thanks,

Jillian Burgin
DEP, DESHS-UIS
Los Alamos National Laboratory
TA-03-1437-105AG, MS: B274
Phone: 505-665-1893
Cell: 505-309-1914
Email: jburgin@lanl.gov

From: Wheeler, Holly Lynn
Sent: Tuesday, May 23, 2017 4:05 PM
To: Burgin, Jillian Elizabeth <jburgin@lanl.gov>
Cc: Lemke, Terrill W <tlemke@lanl.gov>; Dolan, Timothy Aloysius <tdolan@lanl.gov>
Subject: clogged trench drain at the TA-60 Heavy Equipment Yard

Jillian,

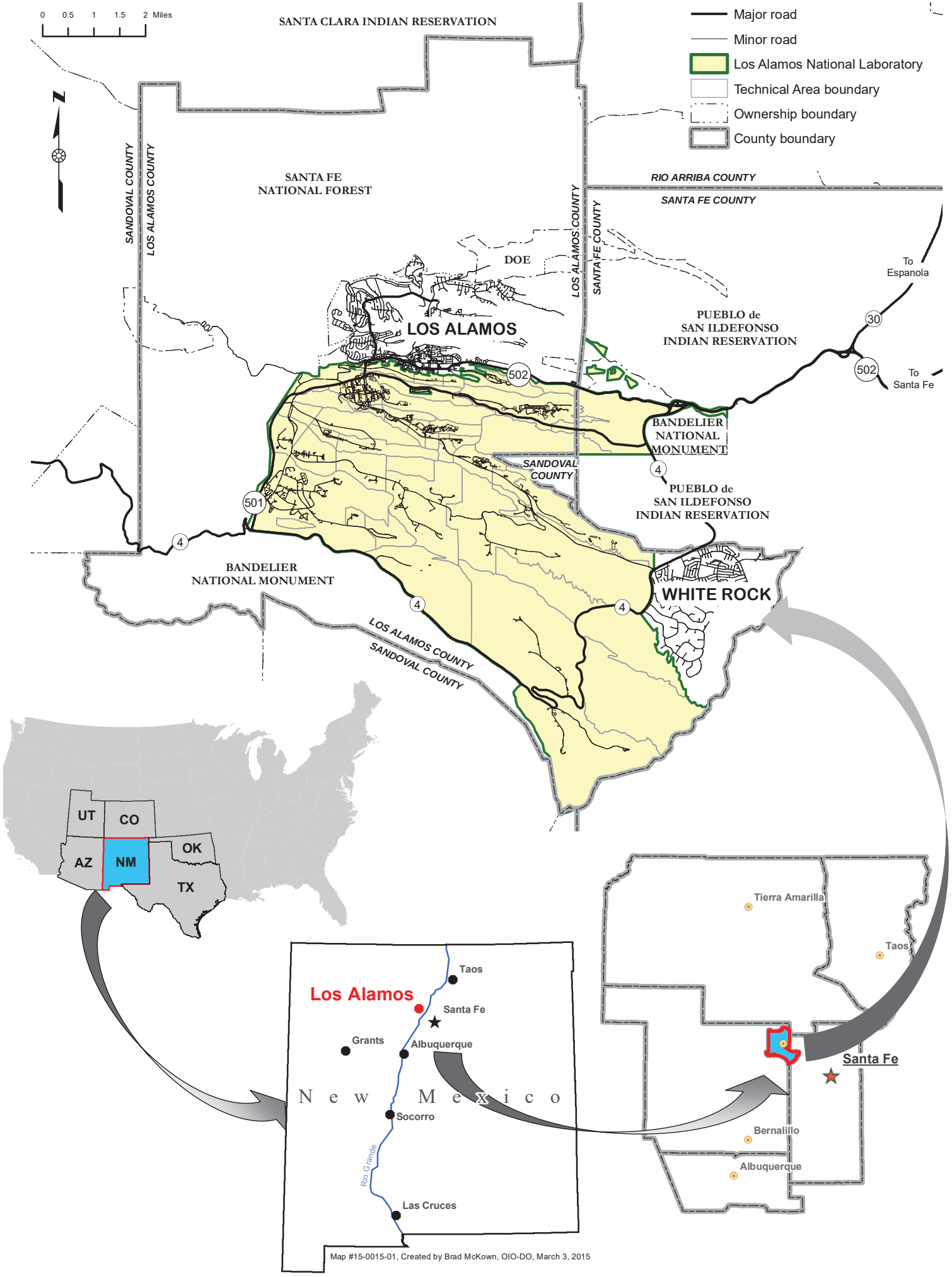
Last week I had sent you an e-mail requesting additional information about how the clogged trench drain (CAR # 1067) was fixed and provided you EPA guidance on oil water separator maintenance. CAR # 1067 was closed on 3/27/2017. I was out downloading data from our single stage stormwater samplers on Friday, May 19, 2017 after the snow event the same day. I took the attached pictures at that time. Please note that there was a sheen on the pooled water. It appears there is still an issue with the trench drain not functioning properly. So I am going to open another corrective action. Please let me know if you need assistance.
Thanks,
Holly Wheeler

APPENDIX B

Site Maps

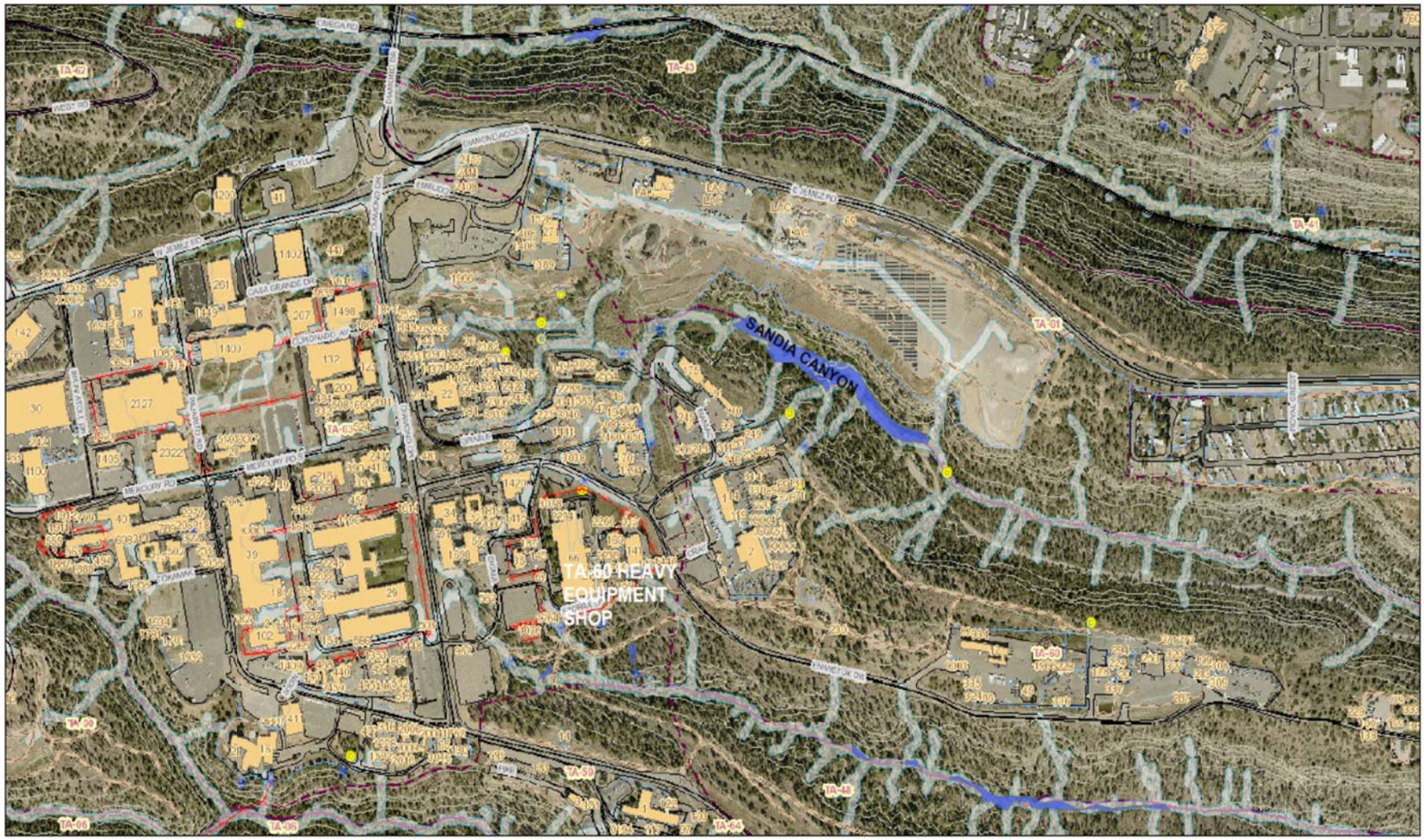
Figure B-1, Regional Location Map
Figure B-2, General Location Map (Includes nearby surface waters and receiving waters)
Figure B-3, Facility Site Map
Figure B-4, Endangered Species Habitat Within LANL

Figure B-1, Regional Location Map



Map #15-0015-01, Created by Brad McKown, OIO-DO, March 3, 2015

Figure B-2, General Location Map
Location of Nearby Surface Waters and Receiving Waters



Scale: 1:6,804

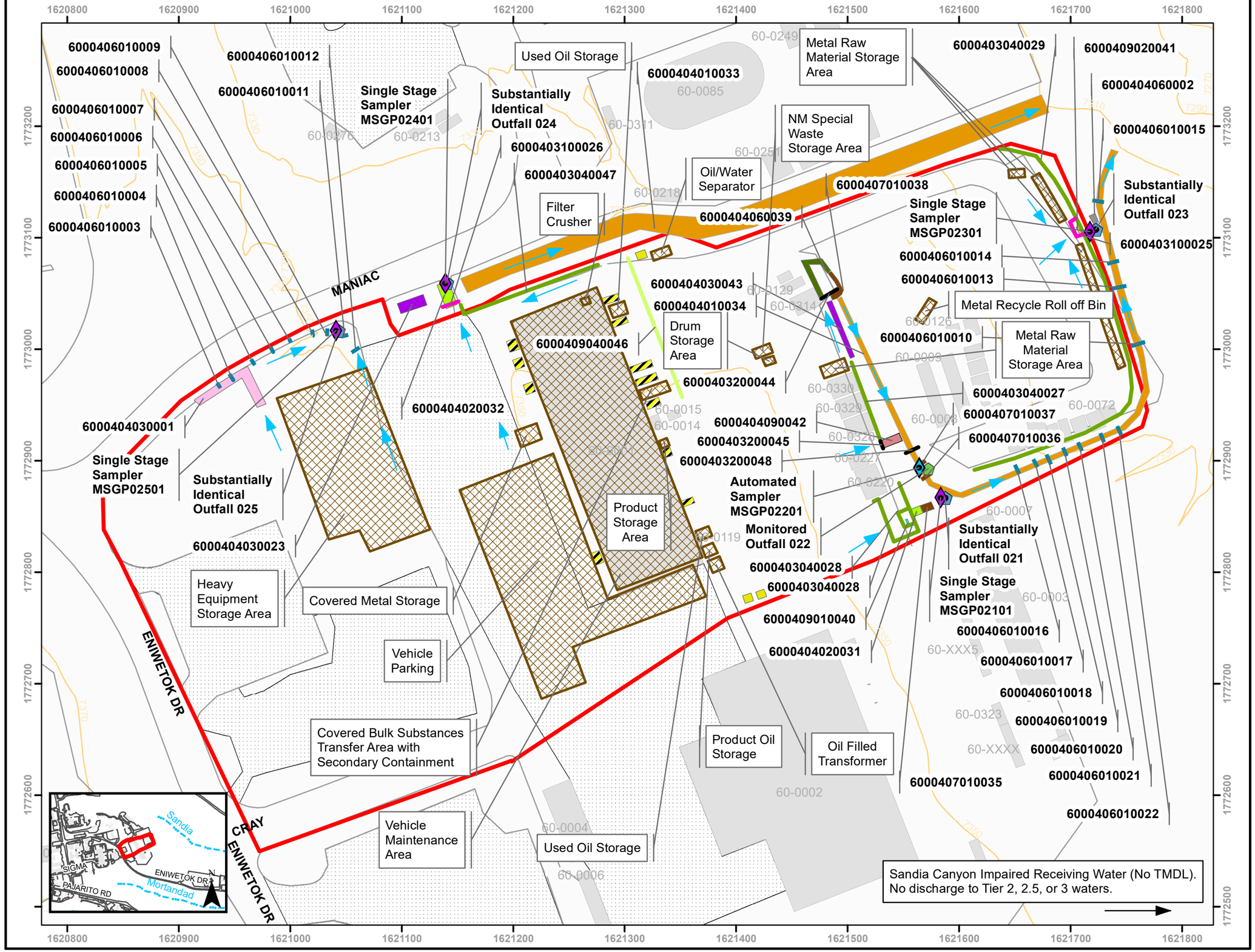
0 0.075 0.15 0.3 mi

0 0.125 0.25 0.5 km

LANL, ENV Division

Figure B-3, Facility Site Map

TA-60-1
HEAVY EQUIPMENT YARD
FIGURE B3 SITE MAP



- Automated Sampler
- Single Stage Sampler
- Monitored Outfall
- Substantially Identical Outfall
- Asphalt Berm
- EnviroSoxx w/ MetalLoxx
- Gravel Bags
- Rock check dam
- Trench Drain
- Drainage
- Paved Roads
- 10 ft Contour
- Boundary of Industrial Activity
- Angled Rock Rip Rap
- Asphalt Channel/Swale
- Drop Inlet with Petro Plug
- Drop Inlet with filters
- Earthen drainage channel
- Eco-Blok
- Gabion Swale
- Gabions
- Rip Rap
- Rock Channel/Swale
- Rock Swale
- Industrial Activity Areas
- Loading/Unloading Areas
- Dumpster
- LANL Structues
- Paved Parking Lot
- Flow Direction

7.30 Acres, 100% Impervious Surface.
Note - No Critical Habitat Areas.

Map number: 16-0015-TA-60-1-Heavy Equipment Yard
Map created by: Ben Sutter, OI-FD
Date: January 29, 2018
Version 4

New Mexico State Plane Coordinate System
Central Zone (3002)
North American Datum, 1983 (NAD 83)
US Survey Ft

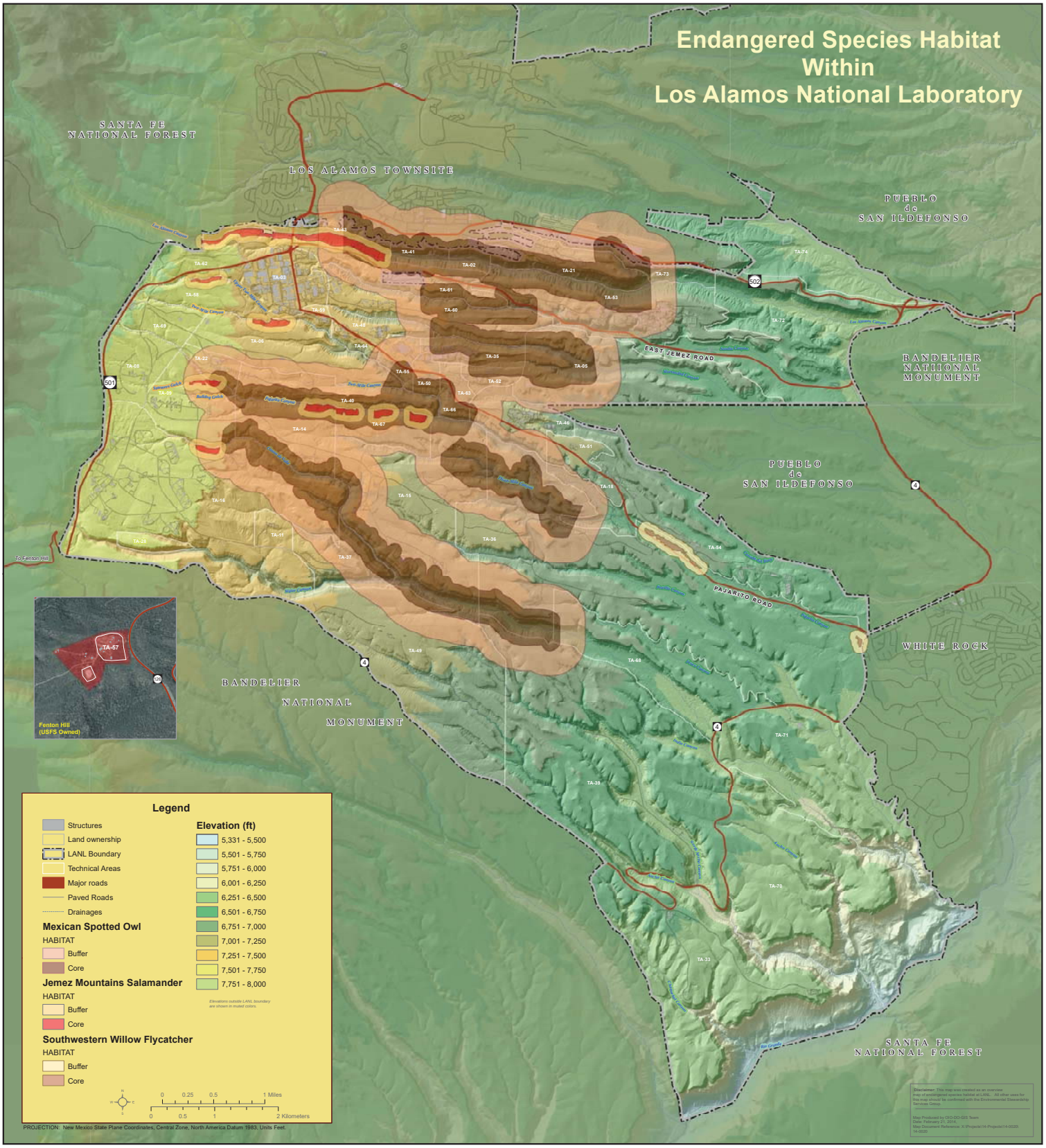
DISCLAIMER: This map was created for work processes associated with the Multi-Sector General Permit. All other uses for this map should be confirmed with LANL EPC-CP staff.

N

0 50 100 Feet

Figure B-4, Endangered Species Habitat Within LANL

Endangered Species Habitat Within Los Alamos National Laboratory



APPENDIX C

NOI and LANS Delegation of Authority Letter

Los Alamos
NATIONAL LABORATORY
EST. 1943

Environment Safety & Health
PO Box 1663, MS K491
Los Alamos, New Mexico 87545
(505) 667-4218/Fax (505) 665-3811

Date: MAR 2 2 2016
Symbol: ADESH-16-045
LA-UR: 16-21721
Locates Action No.: N/A

Stormwater Notice Processing Center
Mail Code 4203M, ATTN: 2015 MSGP Reports
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

To Whom It May Concern:

Subject: **Transmittal of the National Pollutant Discharge Elimination System (NPDES) Notice of Intent (NOI) For Stormwater Discharges Associated with Industrial Activity under the Multi-Sector General Permit (MSGP) Tracking No. NMR053195**

The purpose of this letter is to transmit a complete/correct NOI for stormwater discharges associated with industrial activity under the MSGP for Los Alamos National Laboratory (LANL) (Enclosure 1) on behalf of Los Alamos National Security LLC. LANS operates LANL for the Department of Energy. Per Section G of the attached NOI, three concurrence letters from the United States Department of Interior, Fish and Wildlife Service are provided in Enclosure 2. While submitting a NOI for coverage under the new 2015 MSGP, LANS experienced significant problems with EPA's Net NPDES eReporting tool, which resulted in the initial submission of a NOI with incomplete outfall attribute data and incorrect information. The details of these issues were provided in a letter sent to Mr. Bret Larsen of EPA Region 6 on October 29, 2015 (ENV-DO-15-0309) (Enclosure 3).

The initial NOI was submitted in the Net eReporting tool on 9/02/2015, which resulted in a follow-up e-mail on 9/03/2015 from NeT@epa.gov stating the NOI requesting coverage for Los Alamos National Laboratory under EPA's 2015 MSGP had been certified and submitted to EPA for review, and assigned NPDES ID NMR053195. Please note, this tracking number has been inserted in Section B of Enclosure 1 to prevent confusion or assignment of an additional tracking number. Authorization to discharge under the 2015 MSGP was sent to LANS on 10/03/2015.

Repeated attempts to update the NOI via the "Change NOI" form have resulted in the same system problems without successful submittal of all required information via NeT. As such, an e-mail request for waiver pursuant to Part 7.1 of the 2015 MSGP was sent to Ms. Nasim Jahan on 2/05/2016. On 2/09/2016 Ms. Jahan responded by indicating "LANL can submit their paper copy."

LANL has 14 industrial sites covering eight (8) sectors, with 74 outfalls (26 monitored outfalls and 48 associated substantially identical outfalls) discharging to five (5) assessment units on the Clean Water Act 303(d) list (impaired waters without an EPA-approved or established TMDL pursuant to Part 6.2.4.1 of the 2015 MSGP). In addition, due to extended frozen conditions in the winter and the semi-arid climate, LANS implements an alternate monitoring period of four (4) two-month monitoring quarters for benchmark values as identified below, in accordance with Part 6.1.6 of the 2015 MSGP. This does not coincide with the four (4) three month monitoring quarters for benchmark values currently in the NetDMR.

April 1 through May 31
June 1 through July 31
August 1 through September 30
October 1 through November 30

To facilitate complete and accurate information in the NeT reporting system, LANS has provided an additional table (Enclosure 4) containing sector-specific information per MSGP site within the 36 square mile facility and listed each site's associated outfalls. The premise for providing this information is to determine whether the NeT tool can prepopulate the electronic Discharge Monitoring Report (DMR) form based on this information without causing inaccuracies or rejected data (non-fillable forms due to unresolvable hard errors). In addition, LANS is concerned that incomplete or incorrect NOI information will perpetuate a recurring prohibitive "domino effect" on subsequent electronic DMR filing and "Change NOI" forms.

LANS respectfully requests consideration of waivers for electronic submittal of MSGP DMRs using the NetDMR system until it is determined whether the attached NOI can be submitted by EPA's Subcontractor into the NeT tool. Once this occurs, LANS can determine how information is populating the NetDMR system and whether it will accept applicable data without causing prohibitive hard errors.

Any additional direction or guidance you may have would be appreciated. Please contact Terrill Lemke of Environmental Protection and Compliance, Compliance Programs (EPC-CP) at (505) 665-2397 if you have any questions regarding this NOI.

Sincerely,

Michael T. Brandt, DrPH, CIH
Associate Director
Environment, Safety & Health
Los Alamos National Security, LLC
Los Alamos National Laboratory

MTB:TWL:HLW/lm

Enclosure: 1. Notice of Intent (NOI) For Stormwater Discharges Associated With Industrial Activity Unde the NPDES Multi-Sector General Permit
2. Concurrence letters from United States Department of Interior, Fish and Wildlife Service

3. Multi-Sector General Permit (MSGP) Notice of Intent (NOI) Reporting Pursuant to Part B.12.H
4. Industrial Sites and Outfalls by Sector

Cy: Nasim Jahan, USEPA/Region 6, Dallas, TX, (E-File)
Bruce Yurdin, NMED/SWQB, Santa Fe, NM, (E-File)
Jordan Arnswald, NA-LA, (E-File)
Craig S. Leasure, PADOPS, (E-File)
William Mairson, PADOPS, (E-File)
Michael T. Brandt, ADESH, (E-File)
Raeanna Sharp-Geiger, ADESH, (E-File)
John P. McCann, EPC-DO, (E-File)
Terrill W. Lemke, EPC-CP, (E-File)
Holly L. Wheeler, EPC-CP, (E-File)
Timothy A. Dolan, LC-ESH, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov

ENCLOSURE 1

Notice of Intent (NOI) For Stormwater Discharges Associated With Industrial Activity Under the NPDES Multi-Sector General Permit

ADESH-16-045

LA-UR-16-21721

Date: MAR 2 2 2016

NPDES FORM 3510-6	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 NOTICE OF INTENT (NOI) FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY UNDER THE NPDES MULTI-SECTOR GENERAL PERMIT	Form Approved. OMB No. 2040-0004

Submission of this Notice of Intent (NOI) constitutes notice that the operator identified in Section C of this form requests authorization to discharge pursuant to the NPDES Stormwater Multi-Sector General Permit (MSGP) permit number identified in Section B of this form. Submission of this NOI also constitutes notice that the operator identified in Section C of this form meets the eligibility conditions of Part 1.1 of the MSGP for the facility identified in Section D of this form. To obtain authorization, you must submit a complete and accurate NOI form. Discharges are not authorized if your NOI is incomplete or inaccurate or if you were never eligible for permit coverage. Refer to the instructions at the end of this form to complete your NOI.

A. Approval to Use Paper NOI Form

1. Have you been granted a waiver from electronic reporting from the EPA Regional Office*? ■ YES ☐ NO

If yes, check which waiver you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted: ☐ The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband internet access in the most recent report from the Federal Communications Commission.

■ The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Nasim Jahan

Date approval obtained: 02/09/2016

* **Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper NOI form. If you have not obtained a waiver, you must file this form electronically using the NPDES eReporting Tool (NeT) at http://water.epa.gov/polwaste/npdes/stormwater/Stormwater-eNOI-System-for-EPAs-MultiSector-General-Permit.cfm**

B. Permit Information

NPDES ID (EPA Use Only): NMR053195

1. Master Permit Number: NMR050000 (see Appendix C of the MSGP for the list of eligible master permit numbers)

2. Are you a new discharger or a new source as defined in Appendix A? ☐ YES ■ NO (If yes, skip to Part C of this form).

3. If you are not a new discharger or a new source, have stormwater discharges from your facility been covered previously under an NPDES permit?

■ YES ☐ NO

If yes, provide the NPDES ID if you had coverage under EPA's 2008 MSGP or the NPDES ID if you had coverage under an EPA individual permit: NMR05GB21

C. Facility Operator Information

1. Operator Information:

Operator Name: Los Alamos National Security LLC

Mailing Address:

Street: PO Box 1663

City: Los Alamos State: NM ZIP Code: 87545-

County or Similar Government Subdivision: Los Alamos

Phone: 505-665-2397 Ext.

E-mail: tlemke@lanl.gov

2. Operator Point of Contact Information:

First Name, Middle Initial, Last Name: Terrill W Lemke

Title: Environmental Manager

3. NOI Preparer Information (Complete if NOI was prepared by someone other than the certifier):

First Name, Middle Initial, Last Name: Holly L Wheeler

Organization: Los Alamos National Security LLC

Phone: 505-667-1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: PO Box 1663

City: Los Alamos State: NM ZIP Code: 87545 -

County or Similar Government Subdivision: Los Alamos

3. Latitude/Longitude for the facility:

Latitude: 35.877277° N (decimal degrees) Longitude: 106.321127° W (decimal degrees)

Latitude/Longitude Data Source: ☐ Map ☐ GPS ■ Other

If you used a USGS topographic map, what was the scale? _____

Horizontal Reference Datum: ☐ NAD 27 ☐ NAD 83 ■ WGS 84

4. Is your facility located on Indian Country lands? ☐ YES ■ NO

If yes, provide the name of the Indian tribe associated with the area of Indian country (including name of Indian reservation, if applicable):

_____

5. Are you requesting coverage under this NOI as a "federal operator" as defined in Appendix A? ■ YES ☐ NO

6. What is the ownership type of the facility?

■ Federal Facility (U.S. Government) ☐ Privately Owned Facility ☐ Municipality ☐ County Government

☐ Corporation ☐ State Government ☐ Tribal Government ☐ School District

☐ District ☐ Mixed Ownership (e.g. Public/Private) ☐ Municipal or Water District

7. Estimated area of industrial activity at your facility exposed to stormwater: 131.36 (to the nearest quarter acre)

8. Sector-Specific Information

Identify the 4-digit Standard Industrial Classification (SIC) code or 2-letter Activity Code that best represents the products produced or services rendered for which your facility is primarily engaged, as defined in the MSGP, and the applicable sector and subsector of your primary industrial activity (See Appendix D):

Primary SIC Code: 3449 OR **Primary Activity Code:**

Sector: AA **Subsector:** AA1

Identify the applicable sector(s) and subsector(s) of any co-located industrial activity for which you are requesting permit coverage:

Sector: P **Subsector:** P1 **Sector:** K **Subsector:** K1 **Sector:** A **Subsector:** A4 **Sector:** D **Subsector:** D1

Sector: O **Subsector:** O1 **Sector:** F **Subsector:** F4 **Sector:** N **Subsector:** N2 **Sector:** **Subsector:**

If you are a Sector S (Air Transportation) facility, do you anticipate using more than 100,000 gallons of pure glycol in glycol-based deicing fluids and/or 100 tons or more of urea on an average annual basis? ☐ YES ☐ NO

If you are a Sector G (Metal Mining) facility, do you have discharges from waste rock and overburden piles? ☐ YES ☐ NO

Check the type of ore you mine at your facility: ☐ Tungsten Ore ☐ Nickel Ore ☐ Aluminum Ore

☐ Mercury Ore ☐ Iron Ore ☐ Platinum Ore ☐ Titanium Ore ☐ Vanadium Ore ☐ Molybdenum ☐ Uranium, Radium, and/or Vanadium Ore

9. Is your facility presently inactive and unstaffed?* ☐ YES ■ NO

* Note that if your facility becomes inactive and unstaffed during the permit term, you must submit an NOI modification to reflect the change.

E. Discharge Information

1. By indicating "Yes" below, I confirm that I understand that the MSGP only authorizes the allowable stormwater discharges in Part 1.1.2 and the allowable non-stormwater discharges listed in Part 1.1.3. Any discharges not expressly authorized in this permit cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, state, or local authorities after issuance of this permit via any means, including the Notice of Intent (NOI) to be covered by the permit, the Stormwater Pollution Prevention Plan (SWPPP), during an inspection, etc. If any discharges requiring NPDES permit coverage other than the allowable stormwater and non-stormwater discharges listed in Parts 1.1.2 and 1.1.3 will be discharged, they must be covered under another NPDES permit. ■ YES

2. Federal Effluent Limitation Guidelines

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? ■ YES ☐ NO

If yes, which effluent limitation guidelines apply to your stormwater discharges?

40 CFR Part/Subpart	Eligible Discharges	Affected MSGP Sector	New Source Date	Check if Applicable
Part 411, Subpart C	Runoff from material storage piles at cement manufacturing facilities	E	2/20/1974	☐
Part 418 Subpart A	Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	C	4/8/1974	☐
Part 423	Coal pile runoff at steam electric generating facilities	O	11/19/1982 10/8/1974[1]	☐
Part 429, Subpart I	Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	A	1/26/1981	☐
Part 436, Subpart B, C, or D	Mine dewatering discharges at crushed stone mines, construction sand and gravel mines, or industrial sand mines	J	N/A	☐
Part 443, Subpart A	Runoff from asphalt emulsion facilities	D	7/28/1975	☒
Part 445, Subparts A & B	Runoff from hazardous waste and non-hazardous waste landfills	K, L	2/2/2000	☐
Part 449	Runoff containing urea from airfield pavement deicing at existing and new primary airports with 1,000 or more annual non-propeller aircraft departures	S	6/15/2012	☐

[1]NSPS promulgated in 1974 were not removed via the 1982 regulation; therefore wastewaters generated by Part 423-applicable sources that were New Sources under the 1974 regulations are subject to the 1974 NSPS.

3. Receiving Waters Information: (Attach a separate list if necessary)

List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002). Also provide the latitude and longitude in degrees decimal for each outfall.		**For each outfall, provide the following receiving water information:**		
		Provide the name of the first water of the U.S. that receives stormwater directly from the outfall and/or from the MS4 that the outfall discharges to:	**If the receiving water is impaired (on the CWA 303(d) list), list the pollutants that are causing the impairment:**	**If a TMDL been completed for this receiving waterbody, providing the following information:**
Outfall ID	002	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted Polychlorinated Biphenyls (PCBs) Thallium, dissolved	**TMDL Name and ID:** N/A **Pollutant(s) for which there is a TMDL:** N/A
Latitude	35.875797			
Longitude	-106.327580			
Outfall ID	004	Two Mile Canyon (Pajarito to headwaters)	Aluminum, total Gross Alpha, adjusted PCBs	**TMDL Name and ID:** N/A **Pollutant(s) for which there is a TMDL:** N/A
Latitude	35.871431			
Longitude	-106.323832			
If substantially identical to other outfall, list identical outfall ID: _____				

Outfall ID	005	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.873919			
Longitude	-106.320746			

If substantially identical to other outfall, list identical outfall ID: _____

Outfall ID	006	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.874011			
Longitude	-106.319858			

If substantially identical to other outfall, list identical outfall ID: 005

Outfall ID	009	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.874843			
Longitude	-106.319412			

If substantially identical to other outfall, list identical outfall ID: _____

Outfall ID	007	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.874014			
Longitude	-106.319203			

If substantially identical to other outfall, list identical outfall ID: 009

Outfall ID	008	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.874617			
Longitude	-106.318925			
If substantially identical to other outfall, list identical outfall ID: 009				
Outfall ID	010	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.875402			
Longitude	-106.320301			
If substantially identical to other outfall, list identical outfall ID: 009				
Outfall ID	012	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.875532			
Longitude	-106.320884			
If substantially identical to other outfall, list identical outfall ID:				
Outfall ID	011	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.875563			
Longitude	-106.320744			
If substantially identical to other outfall, list identical outfall ID: 012				

Outfall ID	018	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.872834			
Longitude	-106.317653			

If substantially identical to other outfall, list identical outfall ID: _____

Outfall ID	013	Mortandad Canyon (Within LANL)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.870797			
Longitude	-106.317867			

If substantially identical to other outfall, list identical outfall ID: 018

Outfall ID	014	Mortandad Canyon (Within LANL)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.870890			
Longitude	-106.317393			

If substantially identical to other outfall, list identical outfall ID: 018

Outfall ID	015	Mortandad Canyon (Within LANL)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.871389			
Longitude	-106.316397			

If substantially identical to other outfall, list identical outfall ID: 018

Outfall ID	016	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.872447			
Longitude	-106.316721			
If substantially identical to other outfall, list identical outfall ID: 018				
Outfall ID	017	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.872599			
Longitude	-106.317066			
If substantially identical to other outfall, list identical outfall ID: 018				
Outfall ID	019	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.872682			
Longitude	-106.318467			
If substantially identical to other outfall, list identical outfall ID: 018				
Outfall ID	020	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.872240			
Longitude	-106.316340			
If substantially identical to other outfall, list identical outfall ID:				

Outfall ID	022	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.872661			
Longitude	-106.313691			
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID	021	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.872514			
Longitude	-106.313562			
If substantially identical to other outfall, list identical outfall ID: 022				
Outfall ID	023	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.873193			
Longitude	-106.313116			
If substantially identical to other outfall, list identical outfall ID: 022				
Outfall ID	024	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.873046			
Longitude	-106.315069			
If substantially identical to other outfall, list identical outfall ID: 022				

Outfall ID	025	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.872928			
Longitude	-106.315400			
If substantially identical to other outfall, list identical outfall ID: 022				
Outfall ID	026	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.872114			
Longitude	-106.313105			
If substantially identical to other outfall, list identical outfall ID:				
Outfall ID	027	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.872401			
Longitude	-106.313391			
If substantially identical to other outfall, list identical outfall ID: 026				
Outfall ID	028	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.872505			
Longitude	-106.313542			
If substantially identical to other outfall, list identical outfall ID: 026				

Outfall ID	029	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.873969			
Longitude	-106.313281			
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID	031	Mortandad Canyon (within LANL)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.869227			
Longitude	-106.305685			
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID	030	Mortandad Canyon (within LANL)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.869325			
Longitude	-106.306926			
If substantially identical to other outfall, list identical outfall ID: 031				
Outfall ID	032	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.870741			
Longitude	-106.306812			
If substantially identical to other outfall, list identical outfall ID: _____				

Outfall ID	033	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.870712			
Longitude	-106.306443			
If substantially identical to other outfall, list identical outfall ID: 032				
Outfall ID	034	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.870603			
Longitude	-106.306055			
If substantially identical to other outfall, list identical outfall ID: 032				
Outfall ID	035	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.870474			
Longitude	-106.305432			
If substantially identical to other outfall, list identical outfall ID: 032				
Outfall ID	036	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.867825			
Longitude	-106.293388			
If substantially identical to other outfall, list identical outfall ID:				

Outfall ID	037	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.867859			
Longitude	-106.292992			

If substantially identical to other outfall, list identical outfall ID: 036

Outfall ID	039	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.867826			
Longitude	-106.291726			

If substantially identical to other outfall, list identical outfall ID: _____

Outfall ID	038	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.867855			
Longitude	-106.292211			

If substantially identical to other outfall, list identical outfall ID: 039

Outfall ID	040	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.867839			
Longitude	-106.291955			

If substantially identical to other outfall, list identical outfall ID: 039

Outfall ID	042	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.867047			
Longitude	-106.289163			
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID	041	Mortandad Canyon (within LANL)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.866377			
Longitude	-106.291397			
If substantially identical to other outfall, list identical outfall ID: 042				
Outfall ID	043	Mortandad Canyon (within LANL)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.866084			
Longitude	-106.290165			
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID	047	Canada del Buey (within LANL)	Aluminum, total Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.844895			
Longitude	-106.264513			
If substantially identical to other outfall, list identical outfall ID: _____				

Outfall ID	044	Canada del Buey (within LANL)	Aluminum, total Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.845868			
Longitude	-106.265279			

If substantially identical to other outfall, list identical outfall ID: 047

Outfall ID	045	Canada del Buey (within LANL)	Aluminum, total Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.845586			
Longitude	-106.265214			

If substantially identical to other outfall, list identical outfall ID: 047

Outfall ID	046	Canada del Buey (within LANL)	Aluminum, total Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.845200			
Longitude	-106.264844			

If substantially identical to other outfall, list identical outfall ID: 047

Outfall ID	048	Canada del Buey (within LANL)	Aluminum, total Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.844590			
Longitude	-106.265044			

If substantially identical to other outfall, list identical outfall ID: 047

Outfall ID	049	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.837228			
Longitude	-106.254840			
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID	050	Canada del Buey (within LANL)	Aluminum, total Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.835746			
Longitude	-106.250832			
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID	051	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.830143			
Longitude	-106.242662			
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID	052	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.831852			
Longitude	-106.242928			
If substantially identical to other outfall, list identical outfall ID: 051				

Outfall ID	053	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A
Latitude	35.829232			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.236793			
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID	065	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A
Latitude	35.829028			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.236029			
If substantially identical to other outfall, list identical outfall ID: 053				
Outfall ID	066	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A
Latitude	35.830185			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.236107			
If substantially identical to other outfall, list identical outfall ID: 053				
Outfall ID	069	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A
Latitude	35.830285			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.234518			
If substantially identical to other outfall, list identical outfall ID: _____				

Outfall ID	054	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.829036			
Longitude	-106.235125			
If substantially identical to other outfall, list identical outfall ID: 069				
Outfall ID	055	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.829173			
Longitude	-106.235121			
If substantially identical to other outfall, list identical outfall ID: 069				
Outfall ID	056	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.829310			
Longitude	-106.236107			
If substantially identical to other outfall, list identical outfall ID: 069				
Outfall ID	057	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.829440			
Longitude	-106.235117			
If substantially identical to other outfall, list identical outfall ID: 069				

Outfall ID	058	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A
Latitude	35.829573			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.235112			
If substantially identical to other outfall, list identical outfall ID: 069				
Outfall ID	059	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A
Latitude	35.829711			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.235108			
If substantially identical to other outfall, list identical outfall ID: 069				
Outfall ID	060	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A
Latitude	35.830340			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.234802			
If substantially identical to other outfall, list identical outfall ID: 069				
Outfall ID	061	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A
Latitude	35.830343			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.234766			
If substantially identical to other outfall, list identical outfall ID: 069				

Outfall ID	062	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.830344			
Longitude	-106.234725			
If substantially identical to other outfall, list identical outfall ID: 069				
Outfall ID	063	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.830342			
Longitude	-106.234692			
If substantially identical to other outfall, list identical outfall ID: 069				
Outfall ID	064	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.830340			
Longitude	-106.234656			
If substantially identical to other outfall, list identical outfall ID: 069				
Outfall ID	067	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.829856			
Longitude	-106.235110			
If substantially identical to other outfall, list identical outfall ID: 069				

Outfall ID	068	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.830051			
Longitude	-106.235103			

If substantially identical to other outfall, list identical outfall ID: 069

Outfall ID	072	Canada del Buey (within LANL)	Aluminum, total Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.832885			
Longitude	-106.239444			

If substantially identical to other outfall, list identical outfall ID: _____

Outfall ID	070	Canada del Buey (within LANL)	Aluminum, total Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.832404			
Longitude	-106.240510			

If substantially identical to other outfall, list identical outfall ID: 072

Outfall ID	071	Canada del Buey (within LANL)	Aluminum, total Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.832701			
Longitude	-106.240994			

If substantially identical to other outfall, list identical outfall ID: 072

Outfall ID	073	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.874819			
Longitude	-106.324283			
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID	074	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.875034			
Longitude	-106.327328			
If substantially identical to other outfall, list identical outfall ID: 073				
Outfall ID	075	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A Pollutant(s) for which there is a TMDL: N/A
Latitude	35.871154			
Longitude	-106.312940			
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID				TMDL Name and ID: Pollutant(s) for which there is a TMDL:
Latitude				
Longitude				
If substantially identical to other outfall, list identical outfall ID: _____				

4. Provide the following information about your outfall latitude longitude:

Latitude/Longitude Data Source: ☐ Map ■ GPS ☐ Other

If you used a USGS topographic map, what was the scale? _____

Horizontal Reference Datum: ☐ NAD 27 ■ NAD 83 ☐ WGS 84

5. Does your facility discharge into a Muncipal Separate Storm Sewer System (MS4)? ☐ YES ■ NO

If yes, provide the name of the MS4 operator: N/A

6. Check if you discharge to any of the waters of the U.S. that are designated by the state or tribal authority under its antidegradation policy as a Tier 2 (or Tier 2.5) water (water quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water) or as a Tier 3 water (Outstanding National Resource Water)? (See Appendix L).

☐ Tier 2/2.5. Provide the name(s) of receiving water(s): _____

☐ Tier 3 (Outstanding National Resource Waters)*

* **Note: You are ineligible for coverage if you are a new discharger or new source to waters designated as Tier 3 (outstanding national resource waters) for antidegradation purposes under 40 CFR 131.13(a)(3).**

7. If you are subject to benchmark monitoring requirements for a hardness-dependent metal, what is the hardness of your receiving water(s) (see Appendix J)?
57 (mg/L)

8. If you are subject to benchmark monitoring requirements for a hardness-dependent metal, does your facility discharge into any saltwater receiving waters?
☐ YES ■ NO

9. Does your facility discharge to a federal CERCLA site listed in Appendix P? ☐ YES ■ NO

If yes, did you notify the EPA Regional Office in advance of filing your NOI, and did the EPA Regional Office determine that you are eligible for permit coverage pursuant to Part 1.1.4.10*? ☐ YES ☐ NO

* **Note: If you discharge to a federal CERCLA site listed in Appendix P, you are ineligible for coverage under this permit unless you notify the EPA Regional Office in advance and the EPA Regional Office determines you are eligible coverage under this permit. In determining your eligibility for coverage under this Part, the EPA Regional Office may evaluate whether you have included adequate controls and/or procedures to ensure that your discharges will not lead to recontamination of aquatic media at the CERCLA Site such that it will to cause or contribute to an exceedance of a water quality standard.**

F. Stormwater Pollution Prevention Plan (SWPPP) Information

1. Has the SWPPP been prepared in advance of filing this NOI, as required? ■ YES ☐ NO

2. SWPPP Contact Information:

First Name, Middle Initial, Last Name: Holly L Wheeler

Professional Title: Environmental Professional

Phone: 505-667-1312 Ext.

E-mail: hbenson@lanl.gov

3. SWPPP Availability:

Your current SWPPP or certain information from your SWPPP must be made available through one of the following two options. Select one of the options and provide the required information*:

* **Note: You are not required to post any confidential business information (CBI) or restricted information (as defined in Appendix A) (such information may be redacted), but you must clearly identify those portions of the SWPPP that are being withheld from public access.**

■ **Option 1:** Maintain a current copy of your SWPPP on an Internet page (Universal Resource Locator or URL).

Provide the web address URL: eprr.lanl.gov

☐ **Option 2:** Provide the following information from your SWPPP:

A. Describe your onsite industrial activities exposed to stormwater (e.g., material storage; equipment fueling, maintenance, and cleaning; cutting steel beams), and potential spill and leak areas:

B. List the pollutant(s) or pollutant constituent(s) associated with each industrial activity exposed to stormwater that could be discharged in stormwater and any authorized non-stormwater discharges listed in Part 1.1.3:

C. Describe the control measures you will employ to comply with the non-numeric technology-based effluent limits required in Part 2.1.2 and Part 8, and any other measures taken to comply with the requirements in Part 2.2 Water Quality-Based Effluent Limitations (see Part 5.2.4):

D. Provide a schedule for good housekeeping and maintenance (see Part 5.2.5.1) and a schedule for all inspections required in Part 4 (see Part 5.2.5.2):

G. Endangered Species Protection

1. Using the instructions in Appendix E of the MSGP, under which endangered species criterion listed in Part 1.1.4.5 are you eligible for coverage under this permit (only check 1 box)?*

☐ A ☐ B ☐ C ■ D ☐ E

* **Note: After you submit your NOI and before your NOI is authorized, EPA may notify you if any additional controls are necessary to ensure your discharges have no likely adverse affects on listed species and critical habitat.**

2. Provide a brief summary of the basis for the criterion selected in Appendix E (e.g., communication with U.S. Fish and Wildlife Service or National Marine Fisheries Service to determine no species in action area; implementation of controls approved by EPA and the Services):

Direct consultation with the U.S. Fish and Wildlife Service and corresponding development and implementation of a facility-specific Habitat Management Plan.

3. If you select criterion B, provide the NPDES ID from the other operator's NOI authorized under this permit: ☐☐☐☐☐☐☐☐☐☐☐☐

4. If you select criterion C, you must answer the following questions:

a. What federally-listed species or designated critical habitat are located in your "action area":

b. Using the Appendix E worksheet, check which of the following is applicable to your facility and answer any corresponding questions:

☐ I submitted my completed *Criterion C Eligibility Form* to EPA at least 30 days prior to submitting this NOI and agree to implement any additional measures that were determined by EPA to be necessary to ensure that my discharges and/or discharge-related activities will not have likely adverse affects on listed species and critical habitat.

Date your *Criterion C Eligibility Form* was sent to EPA: ☐☐/☐☐/☐☐☐☐

Describe any EPA-approved measures you will implement to ensure no likely adverse affects on listed species and critical habitat:

☐ I submitted my completed *Criterion C Eligibility Form* to EPA at least 30 days prior to submitting this NOI and have not been notified of any additional measures necessary to ensure no likely adverse affects on listed species and critical habitat.

Date your *Criterion C Eligibility Form* was sent to EPA: ☐☐/☐☐/☐☐☐☐

5. If you select criterion D or E, you must attach copies of any letters or other communications with the U.S. Fish and Wildlife Service or National Marine Fisheries Service.

H. Historic Preservation

1. If your facility is not located on Indian country lands, is your facility located on a property of religious or cultural significance to an Indian tribe?

   ■ YES ☐ NO

   If yes, provide the name of the Indian tribe associated with the property: San Ildefonso Pueblo

2. Using the instructions in Appendix F of the MSGP, under which historic properties preservation criterion listed in Part 1.1.4.6 are you eligible for coverage under this permit (only check 1 box)?

   ☐ A ■ B ☐ C ☐ D

I. Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

First Name, Middle Initial, Last Name: John P McCann

Title: Division Leader

Signature: [signature]

Date: 03/22/2016

E-mail: jmccann@ilanl.gov

Instructions for Completing EPA Form 3510-6

Notice of Intent (NOI) for Stormwater Discharges Associated with Industrial Activity Under the NPDES Multi-Sector General Permit

NPDES Form Date (06/15) This Form Replaces From 3510-6 (09/08) Form Approved OMB No. 2040-0004

Who Must File an NOI Form

Under section 402(p) of the Clean Water Act (CWA) and regulations at 40 CFR Part 122, stormwater discharges associated with industrial activity are prohibited to waters of the United States unless authorized under a National Pollutant Discharge Elimination System (NPDES) permit. You can obtain coverage under the MSGP by submitting a completed Notice of Intent (NOI) if you are an operator a facility:

- that is located in a jurisdiction where EPA is the permitting authority, listed in Appendix C of the MSGP,
- that discharges stormwater associated with industrial activities, identified in Appendix D of the MSGP,
- that meets the eligibility requirements in Part 1.1 of the permit,
- that has developed a stormwater pollution prevention plan (SWPPP) in accordance with Part 5 of the MSGP; and
- that installs and implements control measures in accordance with Part 2 and Part 8 to meet numeric and non-numeric effluent limits.

Completing the Form

Obtain and read a copy of the 2015 MSGP, viewable at http://water.epa.gov/polwaste/npdes/stormwater/EPA-Multi-Sector-General-Permit-MSGP.cfm. To complete this form, type or print, using uppercase letters, in the appropriate areas only. Please place each character between the marks. Abbreviate if necessary to stay within the number of characters allowed for each item. Use only one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. **Please submit original document with signature in ink - do not send a photocopied signature.**

Section A. Approval to Use Paper NOI Form

You must indicate whether you have been granted a waiver from electronic reporting from the EPA Regional Office. Note that you are not authorized to use this paper NOI form unless the EPA Regional Office has approved its use. Where you have obtained approval to use this form, indicate the waiver that you have been granted, the name of the EPA staff person who granted the waiver, and the date that approval was provided.

See http://water.epa.gov/polwaste/npdes/stormwater/Stormwater-Contacts.cfm for a list of EPA Regional Office contacts.

Section B. Permit Information

Provide the master permit number of the permit under which you are applying for coverage (see Appendix C of the general permit for the list of eligible master permit numbers).

You must indicate whether you are a new discharger or a new source (see Appendix A for the definitions). If you are not a new discharger or a new source, you must indicate whether stormwater discharges from your facility have been previously covered under another NPDES permit. If yes, you must provide the unique NPDES ID (i.e., permit tracking number) for the previous permit your facility was covered under.

Section C. Facility Operator Information

Provide the legal name of the person, firm, public organization, or any other entity that operates the facility described in this NOI. An operator of a facility is the legal entity that controls the operation of the facility. Refer to Appendix A of the permit for the definition of "operator". Provide the operator's mailing address, phone number, and e-mail. Correspondence for the NOI will be sent to this address. Also provide the name and title for the operator point of contact (note that the point of contact name may be the same as the operator name).

If the NOI was prepared by someone other than the certifier (for example, if the NOI was prepared by the facility SWPPP contact or a consultant for the certifier's signature), include the full name, organization, phone number, and email address of the NOI preparer.

Section D. Facility Information

Enter the official or legal name and complete address, including city, state, ZIP code, and county or similar government subdivision of the facility. If the facility lacks a street address, indicate the general location of the facility (e.g., Intersection of State Highways 61 and 34). Complete facility information must be provided for permit coverage to be granted.

Provide the latitude and longitude of your facility in decimal degrees format. The latitude and longitude of your facility can be determined in several different ways, including through the use of global positioning system (GPS) receivers, U.S. Geological Survey (U.S.G.S.) topographic or quadrangle maps. Refer to http://transition.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html/ for assistance in providing the proper latitude/longitude format. For consistency, EPA requests that measurements be taken from the approximate center of the facility. Specify which method you used to determine latitude and longitude. If a U.S.G.S. topographic map is used, specify the scale of the map used. Enter the horizontal reference datum for your latitude and longitude. The horizontal reference datum used on USGS topographic maps is shown on the bottom left corner of USGS topographic maps; it is also available for GPS receivers.

Indicate whether the facility is on Indian country lands, and if so, provide the name of the Indian tribe associated with the area of Indian country (including name of Indian reservation, if applicable).

Indicate whether you are seeking coverage under this permit as a "federal operator" as defined in Appendix A. Also check the ownership type for the facility (e.g., Federal Facility, Privately Owned Facility, Municipality, County Government, Corporation, State Government, Tribal Government, School District, District, Mixed Ownership [e.g., public/private], Municipal or Water District).

Enter the estimated area of industrial activity at your facility exposed to stormwaterto the nearest quarter acre.

List the four-digit Standard Industrial Classification (SIC) code or two character activity code that best describes the primary industrial activities performed by your facility under which you are required to obtain permit coverage. Your primary industrial activity includes any activities performed on-site which are (1) identified by the facility's primary SIC code and included in the descriptions of 40 CFR 122.26(b)(14)(ii), (iii), (vi), or (viii); or (2) included in the narrative descriptions of 40 CFR 122.26(b)(14)(i), (iv), (v), (vii), or (ix). See Appendix D of the MSGP for a complete list of SIC codes and activities codes covered under the MSGP. Also provide the applicable sector and subsector associated with the SIC code or activity code for your primary industrial activities. For a complete list of sector and subsector codes, see Appendix D of the MSGP.

If your facility has co-located industrial activities that are not identified as your primary industrial activity, identify the sector and subsector codes that describe these other industrial activities.

For Sector S facilities (Air Transportation), indicate whether you anticipate that the entire airport facility will use more than 100,000 gallons of pure glycol in glycol-based deicing fluids and/or 100 tons or more of urea on an average annual basis. If so, additional effluent limits and monitoring conditions apply to your discharge (see Part 8.S of the permit).

For Sector G facilities (Metal Mining), check the type of ore(s) mined at the facility.

Indicate whether your facility is currently inactive and unstaffed. Note that if your facility becomes inactive and unstaffed during the permit term, you must submit an NOI modification to reflect the change.

Section E. Discharge Information

You must confirm that you understand that the MSGP only authorizes the allowable stormwater discharges listed in Part 1.1.2 and the allowable non-stormwater discharges listed in Part 1.1.3. Any discharges not expressly authorized under the MSGP are not covered by the MSGP or the permit shield provision of the CWA Section 402(k) and they cannot become authorized or shielded by disclosure to EPA, state, or local authorities via the NOI to be covered by the permit or by any other means (e.g., in the SWPPP or during an inspection). If any discharges requiring NPDES permit coverage other than the allowable stormwater and non-stormwater discharges listed in Parts 1.1.2 and 1.1.3 will be discharged, they must either be eliminated or covered under another NPDES permit.

Depending on your industrial activities, your facility may be subject to federal effluent limitation guidelines which include additional effluent limits and monitoring requirements for your facility. Please review these requirements, described in Part 2.1.3 of the MSGP, and check any appropriate boxes on the NOI form.

You must identify all the outfalls from your facility that discharge stormwater. Each outfall must be assigned a unique 3-digit ID (e.g., 001, 002, 003). You must also provide the latitude and longitude for each outfall from your facility. Indicate whether any outfalls are substantially identical to an outfall already listed, and identify the outfall it is identical to. For each unique outfall you list, you must specify the name of the first water of the U.S. that receives stormwater directly from the outfall and/or from the MS4 that the outfall discharges to. You must specify whether any receiving waters that you discharge to are listed as "impaired" as defined in Appendix A, and the pollutants for which the water is impaired. You must also check identify any Total Maximum Daily Loads (TMDL) that have been completed for any of the waters of the U.S. that you discharge to. You must also provide information about the outfall latitude/longitude, including data source, the scale (if applicable), and the horizontal reference datum. See the instructions in Section D for more information about determining the latitude and longitude.

Identify whether your facility discharges into a Municipal Separate Storm Sewer System (MS4). If yes, provide the name of the MS4 operator. If you are uncertain of the MS4 operator, contact your local government for that information.

Indicate whether discharges from the facility will enter into a water of the U.S that is designated as a Tier 2, Tier 2.5, or Tier 3 water. A list of Tier 2, 2.5, and 3 waters is provided as Appendix L. If the answer is "yes", name all waters designated as Tier 2, Tier 2.5, or Tier 3 to which the facility will discharge. Note that you are ineligible for coverage if you are a new discharger or a new source to waters designated as Tier 3 (outstanding national resource waters) for antidegradation purposes under 40 CFR 131.13(a)(3).

If you are subject to any benchmark monitoring requirements for metals (see the requirements applicable to your Sector(s) in Part 8 of the permit), indicate the hardness for your receiving water(s). See Appendix J of the permit for information about determining waterbody hardness.

If you are subject to benchmark monitoring requirements for hardness-dependent metals you must also answer whether your facility discharges into any saltwater receiving waters.

Indicate whether your facility will discharge to a federal CERCLA site listed in Appendix P. Note that if your facility will discharge into a federal CERCLA site listed in Appendix P, you are not eligible for coverage under this permit unless you notify the EPA Regional Office in advance and the EPA Regional Office authorizes overage under this permit after you have included adequate controls and/or procedures designed to ensure that discharges will not lead to recontamination of aquatic media at the CERCLA site such that your discharge will cause or contribute to an exceedance of a water quality standard.

Section F. Stormwater Pollution Prevention Plan (SWPPP) Information

All facilities eligible for coverage under this permit are required to prepare a SWPPP in advance of filing the NOI, in accordance with Part 5. Indicate whether the SWPPP has been prepared in advance of filing the NOI.

Indicate the contact information (name, phone, and email) for the person who developed the SWPPP for this facility.

You identify how your SWPPP information will be made availa consistent with Part 5.4 and 7.3 of the permit. If you are making you SWPPP publicly available on a web site, check Option 1 and provide the appropriate Internet URL address. If you are not providing a URL, check Option 2 and provide the selected SWPPP information on this NOI form. You may copy and paste this information directly from your SWPPP.

Section G. Endangered Species Protection

Using the instructions in Appendix E, indicate the Part 1.1.4.5 criterion (i.e., A, B, C, D, or E) you are eligible under with regard to the protection of federally listed endangered and threatened species and designated critical habitat. A description of the basis for the criterion selected must also be provided.

If criterion B is selected, provide the NPDES ID (i.e., permit tracking number) for the other operator who has certified their eligibility under this permit. The NPDES ID was assigned when the operator received coverage under this permit.

If criterion C is selected, you must specify the federally-listed species or designated critical habitat that are located in the "action area" of the facility. You must also indicate under which scenario you determined you were eligible to submit your NOI under criterion C using Appendix E, and answer any corresponding questions.

If criterion D or E is selected, attach copies of any communications between you and the U.S. Fish and Wildlife Service and National Marine Fisheries Service to this NOI.

Section H. Historic Preservation

If the project is not located in Indian country lands, indicate whether the project is located on a property of religious or cultural significance to an Indian tribe, and if so, provide the name of the Indian tribe associate with the property. Use the instructions in Appendix F to complete questions on the NOI form regarding historic preservation.

Instructions for Completing EPA Form 3510-6

Notice of Intent (NOI) for Stormwater Discharges Associated with Industrial Activity Under the NPDES Multi-Sector General Permit

NPDES Form Date (06/15) This Form Replaces From 3510-6 (09/08) Form Approved OMB No. 2040-0004

Section I. Certification

Certification statement and signature (see Section B.11 of Appendix B of the MSGP for more information). Enter certifier's printed name, title and email address. Sign and date the form. (CAUTION: An unsigned or undated NOI form will prevent the granting of permit coverage.) Federal statutes provide for severe penalties for submitting false information on this application form. Federal regulations require this application to be signed as follows:

For a corporation: by a responsible corporate officer, which means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA). Include the name and title of the person signing the form and the date of signing.

An unsigned or undated NOI form will not be considered eligible for permit coverage.

Modifying Your NOI

If you have been granted a waiver from your Regional Office from electronic reporting, and if after submitting your NOI you need to correct or update any fields on this NOI form, you may do so by indicating changes on this same form.

Paperwork Reduction Act Notice

Public reporting burden for this NOI is estimated to average 3.7 hours plus an additional 2 hours for certain respondents required to gathe hardness data. This estimate includes time for reviewing instructions searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding the burden estimate, any other aspect of the collection of information, or suggestions for improving this form, including any suggestions which may increase or reduce this burden to: Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number on any correspondence. Do not send the completed form to this address.

Submitting Your Form

If you have been granted a waiver from your Regional Office to submit a paper NOI form, you must send your NOI by mail to one of the following addresses:

For Regular U.S. Mail Delivery:
Stormwater Notice Processing Center
Mail Code 4203M, ATTN: 2015 MSGP Reports
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

For Overnight/Express Mail Delivery:
Stormwater Notice Processing Center
William Jefferson Clinton East Building - Room 7420
ATTN: 2015 MSGP Reports
U.S. EPA
1201 Constitution Avenue, NW
Washington, DC 20004

Visit this website for instructions on how to submit electronically:
http://water.epa.gov/polwaste/npdes/stormwater/Stormwater-eNOI-System-for-EPAs-MultiSector-General-Permit.cfm

ENCLOSURE 2

Concurrence Letters From the United States Department of Interior, Fish and Wildlife Service

ADESH-16-045

LA-UR-16-21721

Date: MAR 2 2 2016

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Mexico Ecological Services Field Office
2105 Osuna NE
Albuquerque, New Mexico 87113
Phone: (505) 346-2525 Fax: (505) 346-2542

February 12, 1999

Cons. #2-22-98-I-336
Cons. #2-22-95-I-108

David A. Gurule, Acting Area Manager
Department of Energy
Albuquerque Operations Office
Los Alamos Area Office
Los Alamos, New Mexico 87545

Dear Mr. Gurule:

This responds to your letter dated August 6, 1998, requesting our review and concurrence with the Threatened and Endangered Species Habitat Management Plan (HMP) for Los Alamos National Laboratory (LANL). The HMP was prepared by the LANL Ecology Group for the Department of Energy (DOE) as part of the Dual-Axis Radiographic Hydrodynamics Test Facility (DAHRT) Mitigation Action Plan. The U.S. Fish and Wildlife Service (Service) has worked closely with LANL in the development of the HMP. As a result of discussions and meetings following the August 6, 1998, submittal, additional information/clarification was provided via letters, updated Biological Evaluations/HMPs, and e-mail messages, dated September 8, October 20, November 25, and December 9, 1998, and January 4, January 22, and January 29, 1999. The purpose of the HMP is to provide for the protection of threatened and endangered species and their habitats on LANL. The HMP consists of three components that must be used together to assure proper management of the threatened and endangered species: an Overview Document, Site Plans, and Monitoring Plans. It was determined that if all the restrictions and protective measures outlined in the HMP are strictly followed, the implementation of this HMP may affect, but is not likely to adversely affect the Mexican spotted owl (owl), peregrine falcon (falcon), bald eagle (eagle), and southwestern willow flycatcher (flycatcher). The Biological Evaluation (BE) also considered potential impacts on the black-footed ferret, arctic peregrine falcon, and whooping crane. It was determined that there would be no effect on these species because of a lack of habitat.

Property at LANL varies from remote isolation to heavily developed and/or industrialized. The Service agrees, as stated in the Overview document, that a number of activities at LANL have the potential to adversely impact threatened and endangered species. Many of the industrial processes used at LANL have involved hazardous and radioactive materials. These materials as well as remediation of potential release sites may disturb

or reduce population viability of threatened and endangered species. In addition, other potential sources of disturbance or habitat alterations are possible as a result of the residential and commercial development in the LANL area. While the HMP identifies potential sources of adverse effects, this consultation does not necessarily cover all of those impacts. The Service does not anticipate that DOE will be able to plan all of its operations at LANL in accordance with this plan. The direct effects of most actions can be minimized through implementation of the HMP; however, a more thorough assessment is necessary to adequately evaluate the indirect and cumulative impacts of all actions that are funded, authorized, and permitted by DOE, as well as potential impacts from interrelated and interdependent actions. It was agreed (by Service, DOE, and LANL personnel) that consultation concerning ongoing LANL operations would be handled separately from the HMP, under the consultation on the Site-Wide EIS.

The Site Plans identify the particular areas of LANL where operations might impact known occupied or potential habitat for the flycatcher, eagle, falcon, and owl. Suitable habitat for these species, along with protective buffer areas surrounding their habitat, have been designated as Areas of Environmental Interest (AEIs). For the flycatcher, one AEI was established based on an observation of a migrant male flycatcher in 1997. The AEI is located in the Pajarito wetland area and includes the best available riparian habitat. For eagles, one AEI has been identified for wintering habitat that exists along the Rio Grande on the eastern edge of LANL. It is based on the locations of known and potential roost sites. For the falcon, four AEIs have been identified. They consist of the habitat previously identified under the 1985 interagency agreement. These areas are centered on deep canyons on the eastern side of LANL or on adjacent lands. LANL has agreed to implement the recommended management guidelines, which utilize four management zones (A through D) to protect nesting peregrine falcons from disturbance. For the owl, six AEIs have been identified, but only one of these sites is known to be occupied. These AEIs are based on and located in canyons that have been defined as suitable nest/roost habitat.

The AEI management section of each Site Plan provides guidelines for LANL operations to reduce or eliminate threats to each species. The primary threats on LANL property are (1) impacts on habitat quality from LANL operations and (2) disturbance of nesting or roosting birds. The site plans provide information on their location and guidelines for their management. The AEI Site Plans consist of a species description, descriptions of the AEIs for the species, descriptions of current impacts in the AEIs, management plans that describe allowable activities within core and buffer areas under the guidelines of the sites plan and protective measures. Activities discussed in the site plans include day to day activities, such as access into an AEI, as well as long-term projects, such as levels of habitat alteration in the buffer area of an AEI. Restrictions will be implemented on activities that could cause disturbance (people, vehicles and machinery, aircraft, light production, and noise) within occupied AEIs. The location of a potential disturbance activity within the AEI, the occupancy status of the AEI, and the type of activity all affect whether or not an activity is allowable. Habitat alterations are always restricted in core areas, but a limited amount of future development is allowed in currently undeveloped DOE-controlled buffer areas under the guidelines of this site plan as long

as it does not alter habitat in the undeveloped AEI (including light and noise guidelines). The purpose of buffer areas is to protect core areas from undue disturbance or habitat alteration or habitat degradation. Each AEI is specific to the situation or circumstances of the site it covers. According to the HMP, development beyond the cap established for each AEI, or greater than 2 hectares in size, including the developed-area border, requires independent review for ESA compliance.

Varying amounts of development and/or ongoing activities exist in the cores and buffers of each AEI. These developments may include residential, commercial, and light industrial areas, as well as roads and utility corridors. Existing/ongoing activities may include periodic scientific surveys, power line maintenance, recreational use, residential development, ER Program activities, and possible use of a firing site. Potential disturbance may be associated with automobile and truck traffic, construction activities, a live-fire range, explosives testing, and aircraft traffic at the County airport. Ongoing activities in developed areas constitute a baseline condition for the AEIs and are not restricted. New activities including further development within already existing developed areas are not restricted unless they impact undeveloped portions of an AEI core. If a proposed action within a developed area does not meet site plan guidelines, it must be individually reviewed for ESA compliance.

Some activities such as utility corridor maintenance, fuels management, and a limited amount of development are allowed in each AEI (as described in the HMP). The potential impacts of these activities are considered to be insignificant or discountable because they will occur in habitat that has been previously disturbed or is of poor quality due to its size or proximity to already developed areas. It is our understanding (based on the January 22, 1999, e-mail response from Terry Foxx) that the fuels management activities within the owl AEIs will only consist of ongoing and proposed fire protection activities around existing facilities (e.g. thinning around buildings) or those activities that are already covered under the Dome Fire Emergency BA. The other fire management activities mentioned in the HMP will go through the ESH-ID process and further consultation with the Service when a fire management plan is completed in the future.

In general, activities that detrimentally alter habitat in an AEI or would cause unacceptable disturbance to the species inhabiting the AEI are not allowed under the guidelines of a Site Plan. The Site Plans are designed to minimize impacts to threatened and endangered species and their habitat. The protective measures and restrictions outlined in the Site Plans were developed using the best available data, in cooperation with Service biologists.

The U.S. Fish and Wildlife Service concurs with DOE's determination that implementation of LANL's HMP may affect, but is not likely to adversely affect the Mexican spotted owl, American peregrine falcon, bald eagle, and southwestern willow flycatcher based on the protective measures described in the BA and HMP. If all the restrictions and protective measures outlined in the HMP are strictly followed, potential impacts on owls, falcons, eagles, and flycatchers are expected to be insignificant or

discountable for the following reasons: 1) appropriate seasonal restrictions will be implemented to avoid disturbance to potentially breeding flycatchers, peregrines, and owls and wintering eagles; 2) no nest or roost habitat for any listed species will be altered; 3) the total amount of potential foraging habitat that could be impacted within each species home ranges is expected to be insignificant compared to the amount of available foraging habitat throughout the area; 4) monitoring plans have been developed as an integral part of the HMP; and 5) a mechanism for incorporating necessary technical and regulatory changes and updating the HMP has been included (page 32 of the Overview Document).

In future communications regarding this project, please refer to Consultation #2-22-98-I-336. If we can be of further assistance, please contact Carol Torrez of my staff at (505) 346-2525, ext. 115.

Sincerely,

Jennifer Fowler-Propst
Field Supervisor

cc:
Teralene Foxx, Project Manager, Ecology Group, Los Alamos National Laboratory, P.O. Box 1663, Mail Stop M887, Los Alamos, New Mexico 87545
Elizabeth Withers, U.S. Department of Energy, Los Alamos Area Office, 35th Street, Los Alamos, New Mexico
Field Supervisor, Ecological Services, U.S. Fish and Wildlife Service, Phoenix, Arizona

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Mexico Ecological Services Field Office
2105 Osuna NE
Albuquerque, New Mexico 87113
Phone: (505) 346-2525 Fax: (505) 346-2542

December 9, 2013

Cons. #02ENNM00-2014-I-0014

Geoffrey L. Beausoleil, Acting Manager
National Nuclear Security Administration, Los Alamos Field Office
Department of Energy
Los Alamos, New Mexico 87544

Dear Mr. Beausoleil:

Thank you for your biological assessment entitled, "Biological Assessment of the Effects of Implementing the Jemez Mountains Salamander Site Plan on Federally Listed Threatened and Endangered Species at Los Alamos National Laboratory" (BA); the request for informal consultation and conferencing received on July 25, 2013 and supplemental information supplied in the "Jemez Mountains Salamander (*Plethodon neomexicanus*) Los Alamos National Laboratory (LANL) Site Plan" (Site Plan); and emails dated November 19 and December 3, 2013. The Department of Energy (DOE) requested concurrence with the determination of effects for the endangered Jemez Mountains salamander (*Plethodon* neomexicanus) (salamander) pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. § 1531 *et seq.*). Your proposed action consists of implementing the Site Plan, and includes of the incorporation of this Site Plan into LANL's Habitat Management Plan (HMP). The HMP was consulted upon in 1999 (Consultation #2-22-981-336) as the primary mechanism to ensure compliance with the ESA at LANL. The actions described in the Site Plan and analyzed in the BA, and supplemental emails are hereby incorporated by reference. You determined that implementing the Site Plan "may affect, is not likely to adversely affect" the salamander, and includes placing restrictions on certain types of work in areas identified as core habitat for the salamander on LANL property with the purpose of ensuring that effects to the salamander from those actions identified in the Site Plan are insignificant and discountable.

The Site Plan does not include any areas within designated salamander critical habitat, indicating that no critical habitat will be affected. The Site Plan has modeled and field validated the model to identify the areas on LANL property with the highest potential to be occupied by salamanders based on habitat features for the salamander. Each area identified by the modeling is termed "Area of Environmental Interest" (AEI) and consists of a "core area" and a "buffer area". The core area habitat is defined as suitable habitat where the salamander occurs or may occur at LANL. The core area habitat consists of sections of north-facing slope that contain the required

micro-habitat to support salamanders. The buffer area is 328 feet (100 meters) wide extending outward from the edge of the core area. Only the Los Alamos Canyon AEI is known to be occupied based on surveys. Surveys for the salamander are known to have a very low detection rate for occupied areas and DOE has assumed that all AEIs at LANL are occupied at all times by the salamander.

Within the Site Plan, DOE has assessed activities that could cause habitat alteration and includes any action that alters the soil structure, vegetative components necessary to the species, water quality, or hydrology in undeveloped areas of an AEI. If an activity were to take place outside of the AEI the activity will be assessed if it will have effects inside the AEI core. Within the core areas, only activities specified within the Site Plan and those that have no effect in the core areas (e.g. no habitat alterations or effects within the core areas) will be conducted without further consultation with the Service. Habitat alterations also include soil pits for soil samples deeper than 6 inches (15.2 centimeters) using either hand or mechanized augers. Within the Site Plan, DOE is proposing fuels management practices to reduce wildfire risk and maintenance of utility corridors within the AEIs. The likelihood that salamanders may be affected by the actions in the Site Plan is very low. To ensure that effects to the salamander are insignificant and discountable, the Site Plan incorporates the following conservation measures as restrictions to the identified work:

Fuels Management Practices to Reduce Wildfire Risk

a. Within undeveloped core areas, thinning trees to a level of 80% canopy cover or higher may occur; tree thinning below 80% canopy cover is not part of the action under this consultation.
b. Large logs on the ground will be left in place and not chipped.
c. Large trees that are felled will be left as large logs on the ground
d. When appropriate, smaller trees and understory shrubs that may be thinned will be dispersed and left on-site to aid in soil moisture retention.
e. In buffer areas, thinning of trees may occur to the current LANL-approved prescription level; clear-cutting will not occur.
f. Thinning activities will not occur during the rainy season when salamanders are surface active, between July 1 – October 31. Thinning activities may occur earlier in October if freezing temperatures are present.
g. In the unlikely event that a salamander is observed surface active during thinning activities, all activities shall cease, and the Service will be notified.

Utility Corridors

a. Cutting trees that threaten power lines may occur within 26 feet (8 meters) of either side of an existing utility line at LANL
b. New utility lines and utility lines requiring clearance of a right-of-way greater than 52 feet (16 meters) total in core habitat is not part of the action under this consultation.

Habitat alterations other than the fuels management practices and utility corridor maintenance described above will not occur in undeveloped core areas under the guidelines of the Site Plan or this consultation. The Service concurs with DOE's determination regarding the salamander for the following reasons:

Within the Site Plan, DOE has placed the above detailed restrictions to ensure that any effects to the salamander and its habitat remain insignificant and discountable. Canopy cover will remain at 80% or greater in undeveloped core areas and fire management actions will occur outside of the salamander surface activity period. Maintaining utility line corridors in areas with existing infrastructure (the utility lines) by removing individual hazard trees is not expected to have any measurable effect on salamanders or their potential habitat. Consequently, we concur that potential effects to the salamander from the proposed action will be insignificant and discountable.

This concludes section 7 consultation regarding the proposed action. If monitoring or other information results in modification or the inability to complete all aspects of the proposed action, consultation should be reinitiated. Please contact the Service if: 1) future surveys detect listed, proposed or candidate species in habitats where they have not been previously observed; 2) the proposed action changes or new information reveals effects of the proposal to listed species that have not been considered in this analysis; or 3) a new species is listed or critical habitat designated that may be affected by the action.

Thank you for your concern for endangered and threatened species and New Mexico's wildlife habitats. In future correspondence regarding this project, please refer to consultation #02ENNM00-2014-I-0014. If you have any questions, please contact Michelle Christman of my staff at (505) 761-4715.

Sincerely,

for Wally Murphy
Field Supervisor

cc:
Wildlife Biologist, Cuba Ranger District, Cuba, NM (Attn: Ramon Borrego)
Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico

United States Department of the Interior

FISH AND WILDLIFE SERVICE

New Mexico Ecological Services Field Office
2105 Osuna Road NE
Albuquerque, New Mexico 87113
Telephone 505-346-2525 Fax 505-346-2542
www.fws.gov/southwest/es/newmexico/

August 6, 2015

Cons. # 02ENNM00-2015-I-0538

Kimberly Davis Lebak, Manager
Department of Energy
National Nuclear Security Administration
Los Alamos Field Office
Los Alamos, New Mexico 87544

Dear Ms. Lebak:

This responds to your July 9, 2015, cover letter and biological assessment (BA) requesting informal consultation for the addition of the Western distinct population segment of the yellow-billed cuckoo (*Coccyzus americanus occidentalis*) (cuckoo) and the New Mexico meadow jumping mouse (*Zapus hudsonius luteus*) (jumping mouse) to the Los Alamos National Laboratory Habitat Management Plan, Los Alamos, New Mexico. As documented in your BA, which is hereby incorporated by reference, we find that your proposed action will have insignificant and discountable effects to the cuckoo and the jumping mouse. Therefore, the Service concurs with your determination of "may affect, is not likely to adversely affect" for the cuckoo and the jumping mouse.

This concludes section 7 consultation regarding the proposed action. If monitoring or other information results in modification or the inability to complete all aspects of the proposed action, consultation should be reinitiated. Please contact the Service if: 1) future surveys detect listed, proposed or candidate species in habitats where they have not been previously observed; 2) the proposed action changes or new information reveals effects of the proposal to listed species that have not been considered in this analysis; or 3) a new species is listed or critical habitat designated that may be affected by the action.

Thank you for your concern for endangered species and New Mexico's wildlife habitats. If you have any questions, please contact Eric Hein of my staff at the letterhead address or at (505) 761-4735.

Sincerely,

ERIC HEIN

for Wally Murphy
Field Supervisor

cc:
Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico

ENCLOSURE 3

Multi-Sector General Permit (MSGP) Notice of Intent (NOI) Reporting Pursuant to Part B.12.H

ADESH-16-045

LA-UR-16-21721

Date: MAR 2 2 2016

Los Alamos
NATIONAL LABORATORY
EST. 1943

Environmental Protection Division
Environmental Compliance Programs (ENV-CP)
PO Box 1663, K490
Los Alamos, New Mexico 87545
(505) 667-0666

Date: OCT 2 9 2015
Symbol: ENV-DO-15-0309
LA-UR: 15-28383
Locates Action No.: N/A

Mr. Brent Larsen
Water Quality Protection Division (6WQ)
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Dear Mr. Larsen:

Subject: **National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR053195, Multi-Sector General Permit (MSGP) Notice of Intent (NOI) Reporting Pursuant to Part B.12.H.**

In submitting a NOI for coverage under the new NPDES Multi-Sector General Permit, Los Alamos National Security (LANS) experienced significant problems with EPA's NeT NPDES eReporting Tool which resulted in certification of the NOI on September 3 and initial submission of a NOI with incomplete outfall attribute data and incorrect information. During this time LANS staff contacted EPA's NOI Processing Center for support and was given the recommendation to contact Region 6 personnel for further guidance. Per this direction, on September 1, 2015, Terrill Lemke left you a voicemail summarizing the issues and potential impacts of the difficulties experienced with the new electronic reporting system. For additional clarification, the following is a summary of the timeline of events associated with the NOI submission.

- Monday, August 31, 2015
    - Initiated NOI submission using the NeT NPDES eReporting Tool.

- As data was entered into each data field on the NOI form, the Tool was very slow in processing the data and allowing entry into the next field. This created a significant waiting time.
- Upon reaching the fields on the NOI form where outfall attribute data was entered the Tool began to randomly crash, repeatedly deleting all unsaved data.

- Tuesday, September 1, 2015
  - Tool continued to be very slow and randomly crash, repeatedly deleting all unsaved data.
  - For each outfall, when listing the constituents associated with impaired waters, the Tool's auto population feature initially displayed incorrect data which required additional editing and then eventually stopped functioning and caused the Tool to crash.
  - Much of the outfall attribute data had to be reentered multiple times before it was possible to successfully save it to the system.
  - After each save or Tool crash the eReporting Tool would close the NOI form. The time required for the Tool to repeatedly reopen the form made data entry very time consuming.
  - LANS staff contacted the EPA NOI Processing Center on the afternoon of Sept 1 for technical support:
    - NOI Processing Center staff stated that they had been "flooded" with calls over the past week on Tool problems.
    - LANS staff expressed their concern about the length of time being required to enter data and the potential inability to complete the NOI form by the Sept 2 deadline. No solution was available.
    - LANS staff explained the difficulty with entering outfall information for 73 outfalls and NOI Processing Center staff stated that they had received numerous calls on problems with entering outfall data and that some permittees couldn't even enter 20 outfalls.
    - NOI Processing Center staff recommended contacting Regional personnel to notify them of the situation and to seek additional guidance.
  - The eReporting Tool went down at approximately 3:30 pm MDT and remained down until after 9 pm MDT. This eliminated the opportunity to input data during normal business hours.

- Wednesday, September 2, 2015
  - Continued decrease in the performance of the eReporting Tool.
    - Increase in the time for the Tool to process information after entry of each item of data.
    - Increased frequency in the Tool crashing.
    - For each outfall, when listing the constituents associated with impaired waters, the form had to be saved after entry of each individual constituent. Entry of more than one constituent without saving would cause the Tool to crash.

- With the decreased performance of the eReporting Tool LANS staff contacted the EPA NOI Processing Center for direction and Processing Center staff stated the following:
  - They were aware of the problems with the Tool but could provide no solutions or technical direction.
  - They had been reporting daily to EPA on the problems and EPA was definitely aware of the issues.
  - When asked about taking the Tool down at 3:30 MDT on Sept. 1, staff stated that they thought the programmers may have taken the system down to assess the problems.
  - Stated again that they had received many calls about technical issues with the Tool.
  - The more data that was entered the slower the Tool would get.
  - When asked again about the possibility that LANS may not be able to get all information into the NOI, staff stated that LANS would be able to access the submitted NOI to modify/add data after the 30 day waiting period.
- eReporting Tool went down again at 3:30 pm MDT and did not come back up until after 10 pm MDT, again eliminating the opportunity to input data during normal business hours.
- The LANS NOI with all information except some remaining outfall attribute data was submitted by the Preparer at 10:50 pm MDT.
  - The LANS NOI certification signatory was prepared to certify the NOI at this time but didn't get notification that the NOI was ready for certification until 9:37 am MDT on Sept. 3, almost 11 hours later.
  - The NOI was certified on Sept 3, 2015.

Additionally, the NeT NPDES eReporting Tool did not provide dissolved Thallium as a constituent option, but only allowed the selection of total Thallium as an impaired water pollutant under a "Cause Group" when "Metals (other than Mercury)" was selected from the drop down menu. This resulted in LANS having to enter total Thallium as an impaired water pollutant in error for the following outfalls: 002, 005, 006, 007, 008, 009, 010, 011, 012, 016, 017, 018, 019, and 020. LANS appreciates any assistance you may have relative to the total Thallium vs. dissolved Thallium issue. During a subsequent quality assurance evaluation, LANS staff also determined that total Copper was erroneously entered as an impaired water pollutant for outfall 051 and needs to be deleted from the NOI.

LANS is committed to maintaining compliance with the MSGP requirements. Per Section B.12.H of the MSGP, the LANS NOI will be modified to include the remaining outfall attribute data that could not be included on the initial submission and to delete Copper as an impaired water pollutant for outfall 051. LANS coverage under the 2015 MSGP became effective on October 3, 2015, and with the NOI now accessible, actions to update the NOI have been initiated.

Any additional direction or guidance you may have would be appreciated. Please contact Terrill W. Lemke a (505) 665-2397 of the Environmental Compliance Programs (ENV-CP) if you have any questions.

Sincerely,

Anthony R. Grieggs
Group Leader
Environmental Compliance Programs (ENV-CP)
Los Alamos National Security, LLC

ARG:MTS:TWL:HLW/lm

Cy: Nasim Jahan, USEPA/Region 6, Dallas, TX, (E-File)
Bruce Yurdin, NMED/SWQB, Santa Fe, NM, (E-File)
Gene E. Turner, LASO-NS-LP, (E-File)
Jordan Arnswald, LASO-NS-PI, (E-File)
Kirsten Laskey, EM-LA, (E-File)
Craig Leasure, PADOPS, (E-File)
Amy E. De Palma, PADOPS, (E-File)
Michael T. Brandt, ADESH, (E-File)
Raeanna Sharp-Geiger, ADESH, (E-File)
Alison M. Dorries, ENV-DO, (E-File)
Michael T. Saladen, ENV-CP, (E-File)
Terrill W. Lemke, ENV-CP, (E-File)
Holly L. Wheeler, ENV-CP, (E-File)
Timothy A. Dolan, LC-ESH, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
env-correspondence@lanl.gov

ENCLOSURE 4

Industrial Sites and Outfalls by Sector

ADESH-16-045

LA-UR-16-21721

Date: MAR 2 2 2016

Industrial Sites and Outfalls by Sector

Sector	Industrial Site	Monitored Outfalls	Substantially Identical Outfalls
A	TA-3-38 Carpenter Shop	073	074
AA	TA-3-38 Metals Fab Shop	002	N/A
AA	TA-3-39 & 102 Metal Shop	004	N/A
AA, F	TA-3-66 Sigma Complex	018	013 014 015 016 017 019
AA, F	TA-3-66 Sigma Complex	020	N/A
D	TA-60 Asphalt Batch Plant	043	N/A
K	TA-54 Area G	051	052
K	TA-54 Area G	072	070 071
K	TA-54 Area G	053	065 066
K	TA-54 Area G	069	059 058 057 056 055 054 067 068 060 061 062 063 064
K	TA-54 Area L	050	N/A
K	TA-54 RANT	047	048 046 045 044
N	TA-60 MRF	029	N/A

Sector	Industrial Site	Monitored Outfalls	Substantially Identical Outfalls
O	TA-3-22 Power & Steam Plant	005	006
O	TA-3-22 Power & Steam Plant	009	007 008 010
O	TA-3-22 Power & Steam Plant	012	011
P	TA-54 MFW	049	N/A
P	TA-60 Roads and Grounds	031	030
P	TA-60 Roads and Grounds	039	038 040
P	TA-60 Roads and Grounds	036	037
P	TA-60 Roads and Grounds	032	033 034 035
P	TA-60 Roads and Grounds	042	041
P	TA-60-1 Heavy Equipment Yard	022	021 023 024 025
P	TA-60-2 Warehouse	026	027 028
P	TA-60-2 Warehouse	075	N/A

N/A = Not Applicable

Los Alamos NATIONAL LABORATORY

Associate Director for ESH
ADESH
P. O. Box 1663, MS K491
Los Alamos, New Mexico 87545
505-667-4218/Fax 505-665-3811

Date: APR 2 5 2016
Symbol: ADESH-16-053
LAUR: N/A
Locates Action No.: N/A

Mr. Ron Curry, Regional Administrator
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Mail Code: 6RA
Dallas, TX 75202-2733

Dear Mr. Curry:

U1601141

SUBJECT: Notification of Los Alamos National Security, LLC Signatory Officials and Authorized Representatives for NPDES Permits

The purpose of this letter is to provide an update to the U. S. Environmental Protection Agency (EPA) Region 6 on the Los Alamos National Security, LLC (LANS) delegation of authority for signature of documents associated with the various Los Alamos National Laboratory NPDES Permits, pursuant to 40 CFR 122.22(c). This letter supersedes and replaces the signatory authority letters dated July 17, 2013 (EP2013-0147) and August 14, 2013 (ADESH-13-041).

The positions of Associate Director and Deputy Associate Director of Environmental, Safety, and Health (ADESH) Directorate, and Division Leader of the Environmental Protection & Compliance Division (EPC-DO) are hereby identified as LANS's primary signatory officials under 40 CFR 122.22(a) for certifying and signing permit applications (including Notice of Intents (NOIs)) required under the LANL Industrial Point Source Outfall Permit (NPDES Permit No. NM0028355), the NPDES Storm Water Individual Permit (NPDES Permit No. NM0030759), the NPDES Storm Water Construction General Permit, the NPDES Multi-Sector General Permit (ID No. NMR053195), and the NPDES Pesticide General Permit (No. NMG87A041)

The following positions are hereby designated as authorized representatives under 40 CFR 122.22(b) to sign reports, Storm Water Pollution Prevention Plans, Discharge Monitoring Reports, Pesticide Discharge Management Plans, and any other compliance documentation required by the permits:

NPDES Industrial Point Source Outfall Permit (No. NM0028355)

- Positions listed as primary signatory officials above.
- Group Leader of the Environmental Compliance Programs Group.
- Responsible Facility Operations Director (FOD).

NPDES Storm Water Individual Permit (No. NM0030759):

- Positions listed as primary signatory officials above.
- Group Leader of the Environmental Compliance Programs Group.
- The Environmental Remediation Division Leader, Program Director, or Surface Water Program Manager.

NPDES Construction General Permit:

- Positions listed as primary signatory officials above.
- Group Leader of the Environmental Compliance Programs Group.
- Cognizant Project Manager, Construction Manager, or Subcontractor Technical Representative for the regulated construction activity.
- Responsible FOD; Deputy FOD; Operations Manager; or Deployed Environment, Safety, & Health Group Leader responsible for the overall operation of the regulated facility or construction activity.

NPDES Multi-Sector General Permit (ID No. NMR053195)

- Positions listed as primary signatory officials above.
- Group Leader of the Environmental Compliance Programs Group.
- Division Leader, Deputy Division Leader, or Group Leader of the LANL division responsible for the overall operation of the regulated facility or activity.
- Responsible FOD, Deputy FOD, Operations Manager, or Deployed Environment, Safety, & Health Manager responsible for the overall operation of the regulated facility or activity.

NPDES Pesticide General Permit (No. NM687A041)

- Positions listed as primary signatory officials above.
- Group Leader of the Environmental Compliance Programs Group.

Please contact John McCann, Acting Division Leader for the Environmental & Compliance Protection Division, at (505) 667-2211, if you have questions.

Sincerely,

Michael T. Brandt, DrPH, CIH
Associate Director
Environment, Safety & Health

MTB:TWL:MTS/lm
CY: Everett Spencer, USEPA, Region 6, Dallas, TX, (E-File)
Brent E. Larsen, USEPA, Region 6, Dallas, TX, (E-File)

U1601141

Cy (continued):
Gladys Gooden-Jackson, USEPA, Region 6, Dallas, TX, (E-File)
Bruce Yurdin, NMED/SWQB, Santa Fe, NM, (E-File)
Jody M. Pugh, NA-LA, (E-File)
Jordan Arnswald, NA-LA, (E-File)
Kirsten Laskey, EM-LA, (E-File)
David Rhodes, EM-SG, (E-File)
Craig S. Leisure, PADOPS, (E-File)
William R. Mairson, PADOPS, (E-File)
Raeanna Sharp-Geiger, ADESH (E-File)
John McCann, EPC-DO, (E-File)
Anthony R. Grieggs, EPC-CP, (E-File)
Michael T. Saladen, EPC-CP, (E-File)
Terrill W. Lemke, EPC-CP, (E-File)
Jacob W. Meadows, EPC-CP, (E-File)
Marc A. Bailey, EPC-CP, (E-File)
Deborah K. Woitte, LC-ESH, (E-File)
Tim Dolan, LC-ESH, (E-File)
Steve Veenis, ADEM-PO, (E-File)
LASOmailbox@nnsa.doe.gov, (E-File)
Emla.docs@em.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
ADESH Correspondence File, (E-File)
Epc-Correspondence@lanl.gov, (E-File

U1601141

From:	Medina, Louella B
To:	Spencer.everett@Epa.gov; larsen.brent@epa.gov; Gooden-Jackson.gladys@epa.gov; Bruce.Yurdin@state.nm.us; Pugh, Jody M; Arnswald, Jordan; Laskey, Kirsten McKean; Rhodes, David; Leasure, Craig Scott; Mairson, William Raymond; Sharp-Geiger, Raeanna Racine; McCann, John Phillips; Grieggs, Tony; Saladen, Michael Thomas; Lemke, Terrill W; Meadows, Jacob William; Bailey, Marc A; Woitte, Deborah Kay; Dolan, Timothy Aloysius; Veenis, Steve; lasomailbox@nnsa.doe.gov; emla.docs@em.doe.gov; locatesteam; adesh-records@lanl.gov; epc-correspondence@lanl.gov; Martinez, Saundra; Brandt, Michael Thomas
Subject:	ADESH-16-053, Notification of Los Alamos National Security, LLC Signatory Officials and Authorized Representatives for NPDES Permits
Date:	Monday, April 25, 2016 8:23:08 AM
Attachments:	ADESH-16-053-R Curry, Notification of Los Alamos National Security, LLC Signatory Officials and Authorized Representatives for NPDES Permits.pdf

Attached is the final distribution of ADESH-16-053, Notification of Los Alamos National Security, LLC Signatory Officials and Authorized Representatives for NPDES Permits.

USPS Tracking ID: ED442507151US

U1601141

APPENDIX D

Non-Stormwater Discharge Certification

NON-STORM WATER DISCHARGE ASSESSMENT AND CERTIFICATION

TA-60-1 HEAVY EQUIPMENT SHOP

Completed by: Jillian Bursin
Title: DEP
Date: 1/25/18

Date of Evaluation	Outfall Directly Observed During the Test (Location)	Identify Potential Significant Sources of Non- Storm Water	Method Used to Test or Evaluate Discharge	Is Non-Storm Water Present?	How Often?	Describe Results from Test for the Presence of Non-Storm Water Discharge
1/25/18	022	NONE	Visual	No	N/A	Negative

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and completed. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name & Official Title: Jillian Bursin, DEP, CISEC

Signature: JBursin Date Signed: 1/25/18

APPENDIX E

SWPPP Amendment Log

SWPPP AMENDMENT TRACKING LOG

Date	Plan Section	Reason for Amendment	Amendment
Jun-Aug 2015	All	2015 MSGP New Plan	New Plan/incorporation of 2015 MSGP requirements.
Jan 2016	All	Annual Revision	Changed to Rev 1. Minor revisions throughout plan.
Jan 2017	All	Annual Revision	Changed to Rev 2. Minor revisions throughout plan.
Jan 2018	All	Annual Revision	Changed to Rev 3. Reformatted to provide consistency with other UI SWPP Plans.

APPENDIX F

Facility Inspections:

Inspection Forms and Completed Reports for:
Monthly Routine Inspections
Quarterly Visual Assessments
Annual Reports

Los Alamos National Laboratory
ENV-RCRA

NPDES Multi-Sector General Permit Routine Inspection Form
(rev. 03/2009) Page 1 of (use additional sheets if necessary)

Name of Facility: Heavy Equipment Yard	Responsible FOD (Name & Organization): Utilities & Institutional Facilities, Andy Erickson	
Qualified Inspector(s): Cliff Heintschel CISEC Others Present: Justin Teo, Beverly Aquino	Inspection type: ☐ Quarterly ☒ Other monthly	Date of inspection 10/22/2015 Time of inspection: 2:00 PM

Weather: ☒ Clear ☐ Cloudy ☐ Rain ☐ Sleet ☐ Fog ☐ Snow ☐ High Winds ☐ Other:
Temperature: 45 F
Is Inspection Being Conducted During a Storm Water Discharge? ☐Yes ☒No

#	Structural Control Measures (BMP)s	Location	Operating Effectively (Yes or No)?	If No, Need to Maintain (M), Repair (R) or Replace (RP)?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
1.	Storm Drain Inlet Protection with Fossil Flow Bags (protected with gravel bags and Eco Blok)	Lower W	Y		All BMPs in place and working as advertised.
2.	Storm Drain Inlet Protection with Fossil Flow Bags. (protected with asphalt berms)	Upper W	Y		
3.	Sediment Trap	W of Parking	N		
4.	Jersey Barriers	W of Parking	Y		
5.	Secondary Containment	Various	Y		
6.	Channel with check dams	W of Parking	N		
7.	Drip pans	Various	Y		
8.	Gutters	E Bldg	Y		
9.	Heavy metal dumpster	S Yard or Lower Yard	Y		
10.	Gravel Bags (@ rundown)	W of Bldg.	Y		
11.	Swale	W of Bldg.	Y		
12					

Were additional BMPs or Control Measures implemented? ☐ Yes ☒ No Describe: NA

Were previously identified conditions corrected before the next anticipated storm event? ☒ Yes ☐No If No, describe reason:

Area/Activity (Areas of Industrial Materials or Activities Exposed to Storm Water)	Inspected?	Controls Adequate?	Corrective Action Needed and Notes (List area letter with comments below)
A. Material loading/unloading & storage areas	Y	Y	A. In lower yard, the stack of shoring materials has fallen over and some now located outside secondary containment. Stack needs to be re-stacked inside secondary containment. Metal recycle and clean up needs to continue. Need to determine how to cover metals. B. Need to put all snow blades in centralized area and away from rundowns.
B. Equipment operations & maintenance areas	Y	Y	
C. Fueling Areas	NA	NA	
D. Outdoor vehicle & equipment washing areas.	Y	Y	
E. Waste Handling & disposal areas	Y	Y	
F. Erodible areas / construction	Y	Y	
G. Dust generation & vehicle tracking	NA	NA	

Are the SWPP Plan maintenance, schedules and procedures being implemented at the facility? (Yes) No

Were any Corrective Actions initiated or completed? (Yes) No Completed CAs # 776, 777, 779

Are there any conditions requiring Corrective Action? (Yes) No If Yes, List Number of Corrective Actions Required: 778, 780

Non-Compliance

Describe any incidents of non-compliance and/or need for corrective action observed and not described above: FSR # 143 985 has been issued for CA # 778. For CA # 779, the uncovered bins have been sent back to MRF. Facility will not order bins till required and if not covered, send out the same day.

Additional Control Measures

Describe any additional control measures needed to comply with the permit requirements: None

Notes

Use this space for any additional notes or observations from the inspection: None

Inspector's Signature and date: 10/26/15

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print name and title: Russell Stone ESH Manager DSESH-UI

Signature: Russell Stone Digitally signed by Russell Stone
DN: cn=Russell Stone, o=DSESH-UI, ou=ADESH, email=rdstone@lanl.gov, c=US
Date: 2015.10.27 15:34:51 -06'00'

Date:

Los Alamos National Laboratory
ENV-RCRA

NPDES Multi-Sector General Permit Routine Inspection Form
(rev. 03/2009) Page 1 of (use additional sheets if necessary)

Name of Facility: Heavy Equipment Yard	Responsible FOD (Name & Organization): Utilities & Institutional Facilities, Andy Erickson	
Qualified Inspector(s): Cliff Heintschel CISEC Others Present: Justin Teo, Beverly Aquino	Inspection type: ☐ Quarterly ☒ Other monthly	Date of inspection 11/20/2015 Time of Inspection: 9:00 AM

Weather: ☒ Clear ☐ Cloudy ☐ Rain ☐ Sleet ☐ Fog ☐ Snow ☐ High Winds ☐ Other:
Temperature: 40 F
Is Inspection Being Conducted During a Storm Water Discharge? ☐Yes ☒No

#	Structural Control Measures (BMP)s	Location	Operating Effectively (Yes or No)?	If No, Need to Maintain (M), Repair (R) or Replace (RP)?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
1.	Storm Drain Inlet Protection with Fossil Flow Bags (protected with gravel bags and Eco Blok)	Lower W	Y		All BMPs in place and working as advertised.
2.	Storm Drain Inlet Protection with Fossil Flow Bags. (protected with asphalt berms)	Upper W	Y		
3.	Sediment Trap	W of Parking	N		
4.	Jersey Barriers	W of Parking	Y		
5.	Secondary Containment	Various	Y		
6.	Channel with check dams	W of Parking	N		
7.	Drip pans	Various	Y		
8.	Gutters	E Bldg	Y		
9.	Heavy metal dumpster	S Yard or Lower Yard	Y		
10.	Gravel Bags (@ rundown)	W of Bldg.	Y		
11.	Swale	W of Bldg.	Y		
12					

Were additional BMPs or Control Measures Implemented? ☐ Yes ☒ No Describe: NA

Were previously identified conditions corrected before the next anticipated storm event? ☒ Yes ☐No If No, describe reason:

Area/Activity (Areas of Industrial Materials or Activities Exposed to Storm Water)	Inspected?	Controls Adequate?	Corrective Action Needed and Notes (List area letter with comments below)
A. Material loading/unloading & storage areas	Y	Y	A. Metals have been covered with tarps. B. Need cover for metal dumpster.
B. Equipment operations & maintenance areas	Y	Y	
C. Fueling Areas	NA	NA	
D. Outdoor vehicle & equipment washing areas.	Y	Y	
E. Waste Handling & disposal areas	Y	Y	
F. Erodible areas / construction	Y	Y	
G. Dust generation & vehicle tracking	NA	NA	

Are the SWPP Plan maintenance, schedules and procedures being implemented at the facility? Yes No

Were any Corrective Actions initiated or completed? ☒ Yes ☐ No Completed CAs 654 & 781. Issued CA 846 (Metal dumpster)

Are there any conditions requiring Corrective Action? ☒ Yes ☐ No If Yes, List Number of Corrective Actions Required: 778 & 846.

Non-Compliance

Describe any incidents of non-compliance and/or need for corrective action observed and not described above: FSR # 143 985 has been issued for CA # 778. Walked site yesterday with crew to determine fix for CA 778. Excavation permit is being worked and work to complete will start when X-ID issued.

Additional Control Measures

Describe any additional control measures needed to comply with the permit requirements: None

Notes

Use this space for any additional notes or observations from the inspection: None

Inspector's Signature and date: Cliff Hentschel 11/20/15

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print name and title: Russell Stone ESH Manager DSESH-UI

Signature: Russell Stone **Date:** 11/20/2015

Los Alamos National Laboratory
ENV-RCRA

NPDES Multi-Sector General Permit Routine Inspection Form
(rev. 03/2009) Page 1 of __ (use additional sheets if necessary)

Name of Facility: Heavy Equipment Yard	Responsible FOD (Name & Organization): Utilities & Institutional Facilities, Andy Erickson	
Qualified Inspector(s): Cliff Heintschel CISEC Others Present: Beverly Aquino	Inspection type: ☐ Quarterly ☒ Other monthly	Date of Inspection 12/03/2015 Time of Inspection: 10:45 AM

Weather: ☒ Clear ☐ Cloudy ☐ Rain ☐ Sleet ☐ Fog ☐ Snow ☐ High Winds ☐ Other:
Temperature: 40 F
Is Inspection Being Conducted During a Storm Water Discharge? ☐Yes ☒No

#	Structural Control Measures (BMP)s	Location	Operating Effectively (Yes or No)?	If No, Need to Maintain (M), Repair (R) or Replace (RP)?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
1.	Storm Drain Inlet Protection with Fossil Flow Bags (protected with gravel bags and Eco Blok)	Lower W	Y		All BMPs in place and working as advertised. Added BMP (tarps), to cover metals.
2.	Storm Drain Inlet Protection with Fossil Flow Bags. (protected with asphalt berms)	Upper W	Y		
3.	Sediment Trap	W of Parking	N		
4.	Jersey Barriers	W of Parking	Y		
5.	Secondary Containment	Various	Y		
6.	Channel with check dams	W of Parking	N		
7.	Drip pans	Various	Y		
8.	Gutters	E Bldg	Y		
9.	Heavy metal dumpster	S Yard or Lower Yard	Y		
10.	Gravel Bags (@ rundown)	W of Bldg.	Y		
11.	Swale	W of Bldg.	Y		
12	Tarps	Site	Y		

Were additional BMPs or Control Measures implemented? ☒ Yes ☐ No Describe: Tarps to cover metals

Were previously identified conditions corrected before the next anticipated storm event? ☒ Yes ☐ No If No, describe reason:

Area/Activity (Areas of Industrial Materials or Activities Exposed to Storm Water)	Inspected?	Controls Adequate?	Corrective Action Needed and Notes (List area letter with comments below)
A. Material loading/unloading & storage areas	Y	Y	All ok
B. Equipment operations & maintenance areas	Y	Y	
C. Fueling Areas	NA	NA	
D. Outdoor vehicle & equipment washing areas.	Y	Y	
E. Waste Handling & disposal areas	Y	Y	
F. Erodible areas / construction	Y	Y	
G. Dust generation & vehicle tracking	NA	NA	

Are the SWPP Plan maintenance, schedules and procedures being implemented at the facility? ☒ Yes ☐ No

Were any Corrective Actions initiated or completed? ☒ Yes ☐ No Completed CA 778

Are there any conditions requiring Corrective Action? ☐ Yes ☒ No

Non-Compliance

Describe any incidents of non-compliance and/or need for corrective action observed and not described above:

Additional Control Measures

Describe any additional control measures needed to comply with the permit requirements: None

Notes

Use this space for any additional notes or observations from the inspection: None

Inspector's Signature and date: Cliff Hentschel 12/7/15

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print name and title: Russell Stone ESH Manager DSESH-UI

Signature: Russell Stone **Date:** 12/7/2015

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	Heavy Equipment Yard		
NPDES Tracking No.	NMR05000		
Date of Inspection	Jan. 27, 2016	**Start/End Time**	2:00 PM/2:30 PM
Inspector's Name(s)	Cliff Heintschel		
Inspector's Title(s)	Deployed Environmental Professional		
Inspector's Contact Information	699-1605		
Inspector's Qualifications	CISEC		

Weather Information

Weather at time of this inspection?
☒ Clear ☐ Cloudy ☐ Rain ☐ Sleet ☐ Fog ☐ Snow ☐ High Winds
☐ Other: Temperature: 36 F

Have any previously unidentified discharges of pollutants occurred since the last inspection? ☐ Yes ☒ No
If yes, describe:

Are there any discharges occurring at the time of inspection? ☐ Yes ☒ No
If yes, describe:

Control Measures

- *Number the structural stormwater control measures identified in your SWPPP on your site map and list them below (add as many implemented on-site). Carry a copy of the numbered site map with you during your inspections. This list will ensure that you are i control measures at your facility.*
- *Describe corrective actions initiated, date completed, and note the person that completed the work in the Corrective Action Log.*

	Structural Control Measure	**Control Measure is Operating Effectively?**	**If No, In Need of Maintenance, Repair, or Replacement?**	**Corrective Action Needed and Notes** (identify needed maintenance and repairs, or any failed control measures that need replacement)
1	Storm Drain Inlet Protection @ lower lot E	☒ Yes ☐ No	☐ Maintenance ☐ Repair ☐ Replacement	
2	Storm Drain Inlet Protection @ upper lot E	☒ Yes ☐ No	☐ Maintenance ☐ Repair ☐ Replacement	

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
3	Sediment Trap W of parking	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
4	Jersey Barriers W of parking	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
5	Secondary Containment @ Various	☐Yes ☒No	☒ Maintenance ☐ Repair ☐ Replacement	55 Gallon drum of Hydraulic Fluid was outside secondary containment. CA #868. Replaced on spot.
6	Channel with Check Dams W of parking	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
7	Drip Pans @ Various	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
8	Tarps to cover Metals	☐Yes ☒No	☒ Maintenance ☐ Repair ☐ Replacement	Wind has blown tarps off. Need to be replaced. CA #870. Due date 2/5/2016
9	Outfalls 021-025	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
10	Metal Dumpster @ S yard or Lower Lot	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
11	Gravel Bags @ rundown W of Building	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
12	Swale W of building	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

Below are some general areas that should be assessed during routine inspections. Customize this list as needed for the specific types o activities at your facility.

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
1	Material loading/unloading and storage areas	☒Yes ☐No ☐ N/A	☒Yes ☐No	
2	Equipment operations and maintenance areas	☒Yes ☐No ☐ N/A	☒Yes ☐No	
3	Fueling areas	☐Yes ☐No ☒ N/A	☐Yes ☐No	
4	Outdoor vehicle and equipment washing areas	☐Yes ☐No ☒ N/A	☐Yes ☐No	
5	Waste handling and disposal areas	☒Yes ☐No ☐ N/A	☐Yes ☒No	Trash dumpster not maintained needs to be removed. CA# 869. Due date 2/5/2016
6	Erodible areas/construction	☒Yes ☐No ☐ N/A	☒Yes ☐No	
7	Non-stormwater/ illicit connections	☐Yes ☐No ☒ N/A	☐Yes ☐No	
8	Salt storage piles or pile containing salt	☐Yes ☐No ☒N/A	☐Yes ☐No	
9	Dust generation and vehicle tracking	☐Yes ☐No ☒ N/A	☐Yes ☐No	
10	(Other)	☐Yes ☐No ☐ N/A	☐Yes ☐No	
11	(Other)	☐Yes ☐No ☐ N/A	☐Yes ☐No	
12	(Other)	☐Yes ☐No ☐ N/A	☐Yes ☐No	

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes

Non-Compliance

Describe any incidents of non-compliance observed and not described above:

Additional Control Measures

Describe any additional control measures needed to comply with the permit requirements:

Notes

Use this space for any additional notes or observations from the inspection: Metal salvage operation continues with clean up of lower lot.

CERTIFICATION STATEMENT

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Print name and title: Russell Stone DESHS-UTS Group Leader

Signature: Russell Stone Date: 2/25/2016

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	Heavy Equipment Yard		
NPDES Tracking No.	NMR05000		
Date of Inspection	Feb. 18, 2016	**Start/End Time**	2:30 PM/3:30 PM
Inspector's Name(s)	Cliff Heintschel		
Inspector's Title(s)	Deployed Environmental Professional		
Inspector's Contact Information	699-1605		
Inspector's Qualifications	CISEC		

Weather Information

Weather at time of this inspection?
☒ Clear ❑Cloudy ❑ Rain ❑ Sleet ❑ Fog ❑ Snow ❑ High Winds
❑ Other: Temperature: 55 F

Have any previously unidentified discharges of pollutants occurred since the last inspection? ❑Yes ☒No
If yes, describe:

Are there any discharges occurring at the time of inspection? ❑Yes ☒No
If yes, describe:

Control Measures

- *Number the structural stormwater control measures identified in your SWPPP on your site map and list them below (add as many control measures as are implemented on-site). Carry a copy of the numbered site map with you during your inspections. This list will ensure that you are inspecting all required control measures at your facility.*
- *Describe corrective actions initiated, date completed, and note the person that completed the work in the Corrective Action Log.*

	Structural Control Measure	**Control Measure is Operating Effectively?**	**If No, In Need of Maintenance, Repair, or Replacement?**	**Corrective Action Needed and Notes** (identify needed maintenance and repairs, or any failed control measures that need replacement)
1	Storm Drain Inlet Protection @ lower lot E	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
2	Storm Drain Inlet Protection @ upper lot E	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
3	Sediment Trap W of parking	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
4	Jersey Barriers W of parking	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
5	Secondary Containment @ Various	❑Yes ☒No	☒ Maintenance ❑ Repair ❑ Replacement	55 Gallon drum of Washer Fluid was outside secondary containment. CA #876. Replaced on spot. CA closed.
6	Channel with Check Dams W of parking	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
7	Drip Pans @ Various	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
8	Tarps to cover Metals	❑Yes ☒No	☒ Maintenance ❑ Repair ❑ Replacement	Wind has blown tarps off. Need to be replaced. CA #878. Corrected on spot. CA closed
9	Outfalls 021-025	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
10	Metal Dumpster @ S yard or Lower Lot	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
11	Gravel Bags @ rundown W of Building	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
12	Swale W of building	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

Below are some general areas that should be assessed during routine inspections. Customize this list as needed for the specific types of industrial materials or activities at your facility.

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
1	**Material loading/unloading and storage areas**	☒Yes ❑No ❑ N/A	☒Yes ❑No	
2	**Equipment operations and maintenance areas**	☒Yes ❑No ❑ N/A	☒Yes ❑No	
3	**Fueling areas**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
4	**Outdoor vehicle and equipment washing areas**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
5	**Waste handling and disposal areas**	☒Yes ❑No ❑ N/A	❑Yes ☒No	CA #875 Metal on ground needs to be placed in dumpster. CA # 877 Waste metal with oil lines exposed needs to be placed in dumpster Both corrected on spot. CAs closed.
6	**Erodible areas/construction**	☒Yes ❑No ❑ N/A	☒Yes ❑No	
7	**Non-stormwater/ illicit connections**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
8	**Salt storage piles or pile containing salt**	❑Yes ❑No ☒N/A	❑Yes ❑No	
9	**Dust generation and vehicle tracking**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
10	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	
11	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
12	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	

Non-Compliance

Describe any incidents of non-compliance observed and not described above:

Additional Control Measures

Describe any additional control measures needed to comply with the permit requirements:

Notes

Use this space for any additional notes or observations from the inspection: Metal salvage operation continues with clean up of lower lot. Truck load went out this week. Tarps continue to be a problem; especially in this windy season.

CERTIFICATION STATEMENT

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Print name and title: Russell Stone, DESHS-UIS Group Leader

Signature: Russell Stone Digitally signed by Russell Stone DN: cn=Russell Stone, o=DSESH-UI, ou=ADESH, email=rdstone@lanl.gov, c=US Date: 2016.02.22 14:40:24 -07'00' **Date:** February 22, 2016

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	Heavy Equipment Yard		
NPDES Tracking No.	NMR05000		
Date of Inspection	March 11, 2016	**Start/End Time**	9:00 AM/10:00 AM
Inspector's Name(s)	Cliff Heintschel		
Inspector's Title(s)	Deployed Environmental Professional		
Inspector's Contact Information	699-1605		
Inspector's Qualifications	CISEC		

Weather Information

Weather at time of this inspection?
☒ Clear ☐ Cloudy ☐ Rain ☐ Sleet ☐ Fog ☐ Snow ☐ High Winds
☐ Other: Temperature: 55 F

Have any previously unidentified discharges of pollutants occurred since the last inspection? ☐ Yes ☒ No
If yes, describe:

Are there any discharges occurring at the time of inspection? ☐ Yes ☒ No
If yes, describe:

Control Measures

- *Number the structural stormwater control measures identified in your SWPPP on your site map and list them below (add as many control measures as are implemented on-site). Carry a copy of the numbered site map with you during your inspections. This list will ensure that you are inspecting all required control measures at your facility.*
- *Describe corrective actions initiated, date completed, and note the person that completed the work in the Corrective Action Log.*

	Structural Control Measure	**Control Measure is Operating Effectively?**	**If No, In Need of Maintenance, Repair, or Replacement?**	**Corrective Action Needed and Notes** (identify needed maintenance and repairs, or any failed control measures that need replacement)
1	Storm Drain Inlet Protection @ lower lot E	☒ Yes ☐ No	☐ Maintenance ☐ Repair ☐ Replacement	
2	Storm Drain Inlet Protection @ upper lot E	☒ Yes ☐ No	☐ Maintenance ☐ Repair ☐ Replacement	

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
3	Sediment Trap W of parking	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
4	Jersey Barriers W of parking	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
5	Secondary Containment @ Various	☒Yes ☐No	☒ Maintenance ☐ Repair ☐ Replacement	
6	Channel with Check Dams W of parking	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
7	Drip Pans @ Various	☐Yes ☒No	☒ Maintenance ☐ Repair ☐ Replacement	Need to clean and microblaze several oil spots. CA #890. Resolved on spot. CA closed.
8	Tarps to cover Metals	☐Yes ☒No	☒ Maintenance ☐ Repair ☐ Replacement	Tarps need to be placed on cable spools and several single, small items. CA #888. Resolved on spot. CA closed
9	Outfalls 021-025	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
10	Metal Dumpster @ S yard or Lower Lot	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
11	Gravel Bags @ rundown W of Building	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
12	Swale W of building	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

Below are some general areas that should be assessed during routine inspections. Customize this list as needed for the specific types of industrial materials or activities at your facility.

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
1	**Material loading/unloading and storage areas**	☒Yes ☐No ☐ N/A	☒Yes ☐No	
2	**Equipment operations and maintenance areas**	☒Yes ☐No ☐ N/A	☐Yes ☒No	Housekeeping issue. Need to walk and police site, mainly waste wood and pallets. CA #289. Actions performed and areas cleaned. Closed CA.
3	**Fueling areas**	☐Yes ☐No ☒ N/A	☐Yes ☐No	
4	**Outdoor vehicle and equipment washing areas**	☐Yes ☐No ☒ N/A	☐Yes ☐No	
5	**Waste handling and disposal areas**	☒Yes ☐No ☐ N/A	☐Yes ☒No	
6	**Erodible areas/construction**	☒Yes ☐No ☐ N/A	☒Yes ☐No	
7	**Non-stormwater/ illicit connections**	☐Yes ☐No ☒ N/A	☐Yes ☐No	
8	**Salt storage piles or pile containing salt**	☐Yes ☐No ☒N/A	☐Yes ☐No	
9	**Dust generation and vehicle tracking**	☐Yes ☐No ☒ N/A	☐Yes ☐No	
10	**(Other)**	☐Yes ☐No ☐ N/A	☐Yes ☐No	
11	**(Other)**	☐Yes ☐No ☐ N/A	☐Yes ☐No	

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
12	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	

Non-Compliance

Describe any incidents of non-compliance observed and not described above:

Additional Control Measures

Describe any additional control measures needed to comply with the permit requirements:

Notes

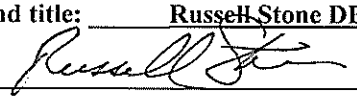
Use this space for any additional notes or observations from the inspection: Metal salvage operation continues with clean up of lower lot. Truck load went out this week.

Tarps continue to be a problem; especially in this windy season.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print name and title: Russell Stone DESHS-UIS Group Leader

Signature:  **Date:** 3/11/2016

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	Heavy Equipment Yard		
NPDES Tracking No.	NMR05000		
Date of Inspection	April 15, 2016	**Start/End Time**	9:00 AM/9:30 AM
Inspector's Name(s)	Cliff Heintschel		
Inspector's Title(s)	Deployed Environmental Professional		
Inspector's Contact Information	699-1605		
Inspector's Qualifications	CISEC		

Weather Information

Weather at time of this inspection?
❑ Clear ☒Cloudy ❑ Rain ❑ Sleet ❑ Fog ❑ Snow ❑ High Winds
❑ Other: Temperature: 55 F

Have any previously unidentified discharges of pollutants occurred since the last inspection? ❑Yes ☒No
If yes, describe:

Are there any discharges occurring at the time of inspection? ❑Yes ☒No
If yes, describe:

Control Measures

- *Number the structural stormwater control measures identified in your SWPPP on your site map and list them below (add as many control measures as are implemented on-site). Carry a copy of the numbered site map with you during your inspections. This list will ensure that you are inspecting all required control measures at your facility.*
- *Describe corrective actions initiated, date completed, and note the person that completed the work in the Corrective Action Log.*

	Structural Control Measure	**Control Measure is Operating Effectively?**	**If No, In Need of Maintenance, Repair, or Replacement?**	**Corrective Action Needed and Notes** (identify needed maintenance and repairs, or any failed control measures that need replacement)
1	Storm Drain Inlet Protection @ lower lot E	❑Yes ☒No	☒ Maintenance ❑ Repair ❑ Replacement	Need to clean sediment in front of gravel bags. Cleaned. CA # 896. CA closed.
2	Storm Drain Inlet Protection @ upper lot E	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
3	Sediment Trap W of parking	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
4	Jersey Barriers W of parking	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
5	Secondary Containment @ Various	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
6	Channel with Check Dams W of parking	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
7	Drip Pans @ Various	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
8	Tarps to cover Metals	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
9	Outfalls 021-025	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
10	Metal Dumpster @ S yard or Lower Lot	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
11	Gravel Bags @ rundown W of Building	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
12	Swale W of building	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

Below are some general areas that should be assessed during routine inspections. Customize this list as needed for the specific types of industrial materials or activities at your facility.

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
1	**Material loading/unloading and storage areas**	☒Yes ❑No ❑ N/A	☒Yes ❑No	
2	**Equipment operations and maintenance areas**	☒Yes ❑No ❑ N/A	❑Yes ☒No	Several oil spots need to be cleaned and micro blazed. Completed on spot. CA # 897. Completed and closed CA.
3	**Fueling areas**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
4	**Outdoor vehicle and equipment washing areas**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
5	**Waste handling and disposal areas**	☒Yes ❑No ❑ N/A	❑Yes ☒No	
6	**Erodible areas/construction**	☒Yes ❑No ❑ N/A	☒Yes ❑No	
7	**Non-stormwater/ illicit connections**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
8	**Salt storage piles or pile containing salt**	❑Yes ❑No ☒N/A	❑Yes ❑No	
9	**Dust generation and vehicle tracking**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
10	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	
11	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
12	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	

Non-Compliance

Describe any incidents of non-compliance observed and not described above:

Additional Control Measures

Describe any additional control measures needed to comply with the permit requirements:

Notes

Use this space for any additional notes or observations from the inspection: Metal salvage operation continues with clean up of lower lot. Truck load went out this week. Lower lot is much improved. Need to find a way to limit access. Tarps continue to be a problem; especially in this windy season.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print name and title: _Russell Stone, DESHS-UIS Group Leader_____

Signature: Russell Stone Digitally signed by Russell Stone DN: cn=Russell Stone, o=DSESH-UI, ou=ADESH, email=rdstone@lanl.gov, c=US Date: 2016.04.19 13:24:59 -06'00' **Date:_4/19/2016_____**

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	Heavy Equipment Yard		
NPDES Tracking No.	NMR05000		
Date of Inspection	May 17, 2016	**Start/End Time**	10:30 AM/11:00 AM
Inspector's Name(s)	Cliff Heintschel		
Inspector's Title(s)	Deployed Environmental Professional		
Inspector's Contact Information	699-1605		
Inspector's Qualifications	CISEC		

Weather Information

Weather at time of this inspection?
❑ Clear ☒Cloudy ❑ Rain ❑ Sleet ❑ Fog ❑ Snow ❑ High Winds
❑ Other: Temperature: 60 F

Have any previously unidentified discharges of pollutants occurred since the last inspection? ❑Yes ☒No
If yes, describe:

Are there any discharges occurring at the time of inspection? ❑Yes ☒No
If yes, describe:

Control Measures

- *Number the structural stormwater control measures identified in your SWPPP on your site map and list them below (add as many control measures as are implemented on-site). Carry a copy of the numbered site map with you during your inspections. This list will ensure that you are inspecting all required control measures at your facility.*
- *Describe corrective actions initiated, date completed, and note the person that completed the work in the Corrective Action Log.*

	Structural Control Measure	**Control Measure is Operating Effectively?**	**If No, In Need of Maintenance, Repair, or Replacement?**	**Corrective Action Needed and Notes** (identify needed maintenance and repairs, or any failed control measures that need replacement)
1	Storm Drain Inlet Protection @ lower lot E	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
2	Storm Drain Inlet Protection @ upper lot E	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
3	Sediment Trap W of parking	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
4	Jersey Barriers W of parking	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
5	Secondary Containment @ Various	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
6	Channel with Check Dams W of parking	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
7	Drip Pans @ Various	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
8	Tarps to cover Metals	❑Yes ☒No	☒ Maintenance ❑ Repair ❑ Replacement	CA # 910. Need to reposition tarps. Will recheck tomorrow.
9	Outfalls 021-025	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
10	Metal Dumpster @ S yard or Lower Lot	❑Yes ☒No	❑ Maintenance ❑ Repair ☒ Replacement	CA # 909. Need to replace full metal dumpster. Completed and closed.
11	Gravel Bags @ rundown W of Building	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
12	Swale W of building	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

Below are some general areas that should be assessed during routine inspections. Customize this list as needed for the specific types of industrial materials or activities at your facility.

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
1	**Material loading/unloading and storage areas**	☒Yes ❑No ❑ N/A	☒Yes ❑No	
2	**Equipment operations and maintenance areas**	☒Yes ❑No ❑ N/A	❑Yes ☒No	CA # 911. Several oil spots need to be cleaned and micro blazed. Completed and closed CA.
3	**Fueling areas**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
4	**Outdoor vehicle and equipment washing areas**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
5	**Waste handling and disposal areas**	☒Yes ❑No ❑ N/A	❑Yes ☒No	CA # 907. Need to label empty drum. CA completed and closed.
6	**Erodible areas/construction**	☒Yes ❑No ❑ N/A	☒Yes ❑No	
7	**Non-stormwater/ illicit connections**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
8	**Salt storage piles or pile containing salt**	❑Yes ❑No ☒N/A	❑Yes ❑No	
9	**Dust generation and vehicle tracking**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
10	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	
11	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	
12	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes

Non-Compliance

Describe any incidents of non-compliance observed and not described above:

Additional Control Measures

Describe any additional control measures needed to comply with the permit requirements:

Notes

Use this space for any additional notes or observations from the inspection: Metal salvage operation continues with clean up of lower lot. Lower lot is much improved. Need to find a way to limit access. Tarps continue to be a problem; especially in this windy season.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print name and title: __Russell Stone, GL DESHS-UIS_____

Signature: Russell Stone Digitally signed by Russell Stone DN: cn=Russell Stone, o=DSESH-UI, ou=ADESH, email=rdstone@lanl.gov, c=US Date: 2016.06.23 16:24:49 -06'00' **Date:** ___June 23, 2016_____

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	Heavy Equipment Yard		
NPDES Tracking No.	NMR05000		
Date of Inspection	June 15, 2016	**Start/End Time**	9:00 AM/9:30 AM
Inspector's Name(s)	Cliff Heintschel		
Inspector's Title(s)	Deployed Environmental Professional		
Inspector's Contact Information	699-1605		
Inspector's Qualifications	CISEC		

Weather Information

Weather at time of this inspection?
☒ Clear ❑Cloudy ❑ Rain ❑ Sleet ❑ Fog ❑ Snow ❑ High Winds
❑ Other: Temperature: 70 F

Have any previously unidentified discharges of pollutants occurred since the last inspection? ❑Yes ☒No
If yes, describe:

Are there any discharges occurring at the time of inspection? ❑Yes ☒No
If yes, describe:

Control Measures

- *Number the structural stormwater control measures identified in your SWPPP on your site map and list them below (add as many control measures as are implemented on-site). Carry a copy of the numbered site map with you during your inspections. This list will ensure that you are inspecting all required control measures at your facility.*
- *Describe corrective actions initiated, date completed, and note the person that completed the work in the Corrective Action Log.*

	Structural Control Measure	**Control Measure is Operating Effectively?**	**If No, In Need of Maintenance, Repair, or Replacement?**	**Corrective Action Needed and Notes** (identify needed maintenance and repairs, or any failed control measures that need replacement)
1	Storm Drain Inlet Protection @ lower lot E	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
2	Storm Drain Inlet Protection @ upper lot E	❑Yes ☒No	☒ Maintenance ❑ Repair ❑ Replacement	Drain was plugged. Have removed old filters and cleaned area. New filters ordered. FSR to clean drain. CA # 912

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
3	Sediment Trap W of parking	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
4	Jersey Barriers W of parking	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
5	Secondary Containment @ Various	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
6	Channel with Check Dams W of parking	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
7	Drip Pans @ Various	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
8	Tarps to cover Metals	❑Yes ☒No	☒ Maintenance ❑ Repair ❑ Replacement	Wind had blown tarps off some metals. Repositioned tarps. CA # 916, Closed
9	Outfalls 021-025	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
10	Metal Dumpster @ S yard or Lower Lot	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
11	Gravel Bags @ rundown W of Building	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
12	Swale W of building	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

Below are some general areas that should be assessed during routine inspections. Customize this list as needed for the specific types of industrial materials or activities at your facility.

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
1	**Material loading/unloading and storage areas**	☒Yes ❑No ❑ N/A	❑Yes ☒No	Oil spots under fire truck parked outside, upper lot. Clean spot & met with Tim Walker Foster and crew to discuss. CA # 917, Closed
2	**Equipment operations and maintenance areas**	☒Yes ❑No ❑ N/A	❑Yes ☒No	Truck parked on lower lot by storm drain. No vehicles should be stored on lower lot. Moved truck to upper lot. CA # 918, Closed
3	**Fueling areas**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
4	**Outdoor vehicle and equipment washing areas**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
5	**Waste handling and disposal areas**	☒Yes ❑No ❑ N/A	☒Yes ❑No	
6	**Erodible areas/construction**	☒Yes ❑No ❑ N/A	☒Yes ❑No	
7	**Non-stormwater/ illicit connections**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
8	**Salt storage piles or pile containing salt**	❑Yes ❑No ☒N/A	❑Yes ❑No	
9	**Dust generation and vehicle tracking**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
10	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	
11	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
12	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	

Non-Compliance

Describe any incidents of non-compliance observed and not described above:

Additional Control Measures

Describe any additional control measures needed to comply with the permit requirements:

Notes

Use this space for any additional notes or observations from the inspection: Metal salvage operation continues with clean up of lower lot. Lower lot is much improved. Need to find a way to limit access. Tarps continue to be a problem; especially in this windy season.

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Print name and title: __Russell Stone, GL DESHS-UIS_____

Signature: Russell Stone Digitally signed by Russell Stone DN: cn=Russell Stone, o=DSESH-UI, ou=ADESH, email=rdstone@lanl.gov, c=US Date: 2016.06.23 16:24:49 -06'00' **Date:** ___June 23, 2016_____

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	Heavy Equipment Yard		
NPDES Tracking No.	NMR05000		
Date of Inspection	July 20, 2016	**Start/End Time**	10:00 AM/10:30 AM
Inspector's Name(s)	Cliff Heintschel		
Inspector's Title(s)	Deployed Environmental Professional		
Inspector's Contact Information	699-1605		
Inspector's Qualifications	CISEC		

Weather Information

Weather at time of this inspection?
☒ Clear ❑Cloudy ❑ Rain ❑ Sleet ❑ Fog ❑ Snow ❑ High Winds
❑ Other: Temperature: 80 F

Have any previously unidentified discharges of pollutants occurred since the last inspection? ❑Yes ☒No
If yes, describe:

Are there any discharges occurring at the time of inspection? ❑Yes ☒No
If yes, describe:

Control Measures

- *Number the structural stormwater control measures identified in your SWPPP on your site map and list them below (add as many control measures as are implemented on-site). Carry a copy of the numbered site map with you during your inspections. This list will ensure that you are inspecting all required control measures at your facility.*
- *Describe corrective actions initiated, date completed, and note the person that completed the work in the Corrective Action Log.*

	Structural Control Measure	**Control Measure is Operating Effectively?**	**If No, In Need of Maintenance, Repair, or Replacement?**	**Corrective Action Needed and Notes** (identify needed maintenance and repairs, or any failed control measures that need replacement)
1	Storm Drain Inlet Protection @ lower lot E	❑Yes ☒No	☒ Maintenance ❑ Repair ❑ Replacement	Need to replace several gravel bags at drain. CA # 937.
2	Storm Drain Inlet Protection @ upper lot E	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
3	Sediment Trap W of parking	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
4	Jersey Barriers W of parking	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
5	Secondary Containment @ Various	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
6	Channel with Check Dams W of parking	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
7	Drip Pans @ Various	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
8	Tarps to cover Metals	❑Yes ☒No	☒ Maintenance ❑ Repair ❑ Replacement	Wind had blown tarps off some metals. Repositioned tarps. CA # 938. Action completed, CA closed.
9	Outfalls 021-025	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
10	Metal Dumpster @ S yard or Lower Lot	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
11	Gravel Bags @ rundown W of Building	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
12	Swale W of building	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

Below are some general areas that should be assessed during routine inspections. Customize this list as needed for the specific types of industrial materials or activities at your facility.

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
1	**Material loading/unloading and storage areas**	☒Yes ❑No ❑ N/A	❑Yes☒No	Need to do housekeeping walk around and pick up trash. CA # 939. Action completed, CA closed.
2	**Equipment operations and maintenance areas**	☒Yes ❑No ❑ N/A	☒Yes ❑No	
3	**Fueling areas**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
4	**Outdoor vehicle and equipment washing areas**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
5	**Waste handling and disposal areas**	☒Yes ❑No ❑ N/A	☒Yes ❑No	
6	**Erodible areas/construction**	☒Yes ❑No ❑ N/A	☒Yes ❑No	
7	**Non-stormwater/ illicit connections**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
8	**Salt storage piles or pile containing salt**	❑Yes ❑No ☒N/A	❑Yes ❑No	
9	**Dust generation and vehicle tracking**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
10	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	
11	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
12	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	

Non-Compliance

Describe any incidents of non-compliance observed and not described above:

Additional Control Measures

Describe any additional control measures needed to comply with the permit requirements:

Notes

Use this space for any additional notes or observations from the inspection: Metal salvage operation continues with clean up of lower lot. Lower lot is much improved. Need to find a way to limit access. Tarps continue to be a problem; especially in this windy season.

CERTIFICATION STATEMENT

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Print name and title: Russell Stone, Group Leader DESHS-UIS

Signature: Russell Stone Digitally signed by Russell Stone DN: cn=Russell Stone, o=DSESH-UI, ou=ADESH, email=rdstone@lanl.gov, c=US Date: 2016.07.26 10:38:07 -06'00' **Date:** July 26, 2016

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	Heavy Equipment Yard		
NPDES Tracking No.	NMR05000		
Date of Inspection	August 3, 2016	**Start/End Time**	9:00 AM/9:30 AM
Inspector's Name(s)	Cliff Heintschel		
Inspector's Title(s)	Deployed Environmental Professional		
Inspector's Contact Information	699-1605		
Inspector's Qualifications	CISEC		

Weather Information

Weather at time of this inspection?
☒ Clear ❑Cloudy ❑ Rain ❑ Sleet ❑ Fog ❑ Snow ❑ High Winds
❑ Other: Temperature: 80 F

Have any previously unidentified discharges of pollutants occurred since the last inspection? ❑Yes ☒No
If yes, describe:

Are there any discharges occurring at the time of inspection? ❑Yes ☒No
If yes, describe:

Control Measures

- *Number the structural stormwater control measures identified in your SWPPP on your site map and list them below (add as many control measures as are implemented on-site). Carry a copy of the numbered site map with you during your inspections. This list will ensure that you are inspecting all required control measures at your facility.*
- *Describe corrective actions initiated, date completed, and note the person that completed the work in the Corrective Action Log.*

	Structural Control Measure	**Control Measure is Operating Effectively?**	**If No, In Need of Maintenance, Repair, or Replacement?**	**Corrective Action Needed and Notes** (identify needed maintenance and repairs, or any failed control measures that need replacement)
1	Storm Drain Inlet Protection @ lower lot E	❑Yes ☒No	☒ Maintenance ❑ Repair ❑ Replacement	Need to replace several more gravel bags at lower lot drain CA # 950. Bags replaced, CA closed.
2	Storm Drain Inlet Protection @ upper lot E	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
3	Sediment Trap W of parking	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
4	Jersey Barriers W of parking	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
5	Secondary Containment @ Various	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
6	Channel with Check Dams W of parking	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
7	Drip Pans @ Various	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
8	Tarps to cover Metals	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
9	Outfalls 021-025	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
10	Metal Dumpster @ S yard or Lower Lot	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
11	Gravel Bags @ rundown W of Building	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
12	Swale W of building	☒Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

Below are some general areas that should be assessed during routine inspections. Customize this list as needed for the specific types of industrial materials or activities at your facility.

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
1	**Material loading/unloading and storage areas**	☒Yes ❑No ❑ N/A	☒Yes❑No	
2	**Equipment operations and maintenance areas**	☒Yes ❑No ❑ N/A	☒Yes ❑No	
3	**Fueling areas**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
4	**Outdoor vehicle and equipment washing areas**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
5	**Waste handling and disposal areas**	☒Yes ❑No ❑ N/A	☒Yes ❑No	
6	**Erodible areas/construction**	☒Yes ❑No ❑ N/A	☒Yes ❑No	
7	**Non-stormwater/ illicit connections**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
8	**Salt storage piles or pile containing salt**	❑Yes ❑No ☒N/A	❑Yes ❑No	
9	**Dust generation and vehicle tracking**	❑Yes ❑No ☒ N/A	❑Yes ❑No	
10	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	
11	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	
12	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes

Non-Compliance

Describe any incidents of non-compliance observed and not described above:

Additional Control Measures

Describe any additional control measures needed to comply with the permit requirements:

Notes

Use this space for any additional notes or observations from the inspection: Metal salvage operation continues with clean up of lower lot. Lower lot is much improved. Need to find a way to limit access.

Tarps continue to be a problem; especially in this windy season.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print name and title: Russell Stone, GL DESHS-UIS

Signature: Russell Stone Digitally signed by Russell Stone DN: cn=Russell Stone, o=DSESH-UI, ou=ADESH, email=rdstone@lanl.gov, c=US Date: 2016.08.29 12:08:10 -06'00' **Date:** 8/29/2016

Los Alamos National Lab - ADESH

Work Order MSGP-58532

MSGP Monitoring Stations
Printed 9/6/2016 - 12:11 PM

Maintenance Details

Requested: 9/6/2016 12:05:28 PM
Procedure: MSGP Stormwater Industrial Routine Facilty Inspection (EPC-CP-Form-1020.1)
Last PM: N/A
Project: Monthly Routine Inspections 9-6-16 (P-MSGP-5119)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

Insp.
9/21/16
9:00 - 10:30 a.m

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard

Contact:
Phone:

Reason: MSGP Stormwater Industrial Routine Facilty Inspection

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	Weather Information						
20	Describe the weather at time of inspection in the Weather lookup table. If "Other" is chosen, provide description in task comments of this line. Document the temperature (F°) in the "Reading" field of this line.		68° F plc		☐	☐	☑
	Within the Facility Boundary						
40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "Failed", describe:				☐	☐	☑
50	If "Failed" has a CAR been previously initiated for this new discharge? (Range: 0 - 0)				☐	☑	☐
60	Is the facility free of discharge of pollutants at the time of inspection? If "Failed" describe: (Range: 0 - 0)				☐	☐	☑
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "Failed" describe: (Range: 0 - 0)				☐	☐	☑
	Outfall Inspection needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)						
90	**Monitored Outfall [022]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☑
100	**Monitored Outfall [022]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☑
110	**Monitored Outfall [022]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☑
120	**Substantially Identical Outfall [021]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☑
130	**Substantially Identical Outfall [021]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☑
140					☐	☐	☑

	Substantially Identical Outfall [021] Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)					
150	**Substantially Identical Outfall [023]** Free of Evidence of Erosion? (Range: 0 - 0)			☐	☐	☑
160	**Substantially Identical Outfall [023]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)			☐	☐	☑
170	**Substantially Identical Outfall [023]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)			☐	☐	☑
180	**Substantially Identical Outfall [024]** Free of Evidence of Erosion? (Range: 0 - 0)			☐	☐	☑
190	**Substantially Identical Outfall [024]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)			☐	☐	☑
200	**Substantially Identical Outfall [024]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)			☐	☐	☑
210	**Substantially Identical Outfall [025]** Free of Evidence of Erosion? (Range: 0 - 0)			☐	☐	☑
220	**Substantially Identical Outfall [025]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)			☐	☐	☑
230	**Substantially Identical Outfall [025]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)			☐	☐	☑
	Control Measures (identify needed maintenance and repairs, failed control measures that need replacment, or a description of corrective actions in relevant task comments).					
250	**Asphalt Berm [6000403040027]** Control Measure is operating effectively? (Range: 0 - 0)			☐	☐	☑
260	**Asphalt Berm [6000403040027]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?			☐	☑	☐
270	**Asphalt Berm [6000403040028]** Control Measure is operating effectively? (Range: 0 - 0)			☐	☐	☑
280	**Asphalt Berm [6000403040028]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?			☐	☑	☐
290	**Asphalt Berm [6000403040029]** Control Measure is operating effectively? (Range: 0 - 0)			☐	☐	☑
300	**Asphalt Berm [6000403040029]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?			☐	☑	☐
310	**Asphalt Berm [6000403040030]** Control Measure is operating effectively? (Range: 0 - 0)	Bmp not on Map		☐	☑	☑ JB
320	**Asphalt Berm [6000403040030]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	Bmp not on map		☐	☑	☐
330	**Gravel Bags [6000403100025]** Control Measure is operating effectively? (Range: 0 - 0)			☐	☐	☑
340	**Gravel Bags [6000403100025]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?			☐	☑	☐
350	**Gravel Bags [6000403100026]** Control Measure is operating effectively? (Range: 0 - 0)			☐	☐	☑
360	**Gravel Bags [6000403100026]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?			☐	☑	☐
370	**Concrete/Asphalt Channel/Swale [6000404020031]** Control Measure is operating effectively? (Range: 0 - 0)			☐	☐	☑

380	**Concrete/Asphalt Channel/Swale [6000404020031]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	☐	☑	☐
390	**Concrete/Asphalt Channel/Swale [6000404020032]** Control Measure is operating effectively? (Range: 0 - 0)	☐	☐	☑
400	**Concrete/Asphalt Channel/Swale [6000404020032]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	☐	☑	☐
410	**Eco-Block [6000403110024]** Control Measure is operating effectively? (Range: 0 - 0)	☐	☐	☑
420	**Eco-Block [6000403110024]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	☐	☑	☐
430	**Rock Channel/Swale [6000404030001]** Control Measure is operating effectively? (Range: 0 - 0)	☐	☐	☑
440	**Rock Channel/Swale [6000404030001]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	☐	☑	☐
450	**Rock Channel/Swale [6000404030023]** Control Measure is operating effectively? (Range: 0 - 0)	☐	☐	☑
460	**Rock Channel/Swale [6000404030023]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	☐	☑	☐
470	**Rip Rap [6000404060002]** Control Measure is operating effectively? (Range: 0 - 0)	☐	☐	☑
480	**Rip Rap [6000404060002]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	☐	☑	☐
490	**Rip Rap [6000404060039]** Control Measure is operating effectively? (Range: 0 - 0)	☐	☐	☑
500	**Rip Rap [6000404060039]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	☐	☑	☐
510	**Earthen Channel/Swale [6000404010033]** Control Measure is operating effectively? (Range: 0 - 0)	☐	☐	☑
520	**Earthen Channel/Swale [6000404010033]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	☐	☑	☐
530	**Earthen Channel/Swale [6000404010034]** Control Measure is operating effectively? (Range: 0 - 0)	☐	☐	☑
540	**Earthen Channel/Swale [6000404010034]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	☐	☑	☐
550	**Gabion Swale [6000404090042]** Control Measure is operating effectively?	☐	☐	☑
560	**Gabion Swale [6000404090042]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	☐	☑	☐
570	**Rock Check Dam [6000406010003]** Control Measure is operating effectively? (Range: 0 - 0)	☐	☐	☑
580	**Rock Check Dam [6000406010003]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	☐	☑	☐
590	**Rock Check Dam [6000406010004]** Control Measure is operating effectively? (Range: 0 - 0)	☐	☐	☑
600	**Rock Check Dam [6000406010004]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	☐	☑	☐
610	**Rock Check Dam [6000406010005]** Control Measure is operating effectively? (Range: 0 - 0)	☐	☐	☑
620		☐	☑	☐

	Rock Check Dam [6000406010005] If "Failed", is control measure in need of maintenance, Repair, or Replacement?							
630	**Rock Check Dam [6000406010006]** Control Measure is operating effectively? (Range: 0 - 0)							☑
640	**Rock Check Dam [6000406010006]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?						☑	
650	**Rock Check Dam [6000406010007]** Control Measure is operating effectively? (Range: 0 - 0)							☑
660	**Rock Check Dam [6000406010007]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?						☑	
670	**Rock Check Dam [6000406010008]** Control Measure is operating effectively? (Range: 0 - 0)							☑
680	**Rock Check Dam [6000406010008]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?						☑	
690	**Rock Check Dam [6000406010009]** Control Measure is operating effectively? (Range: 0 - 0)							☑
700	**Rock Check Dam [6000406010009]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?						☑	
710	**Rock Check Dam [6000406010010]** Control Measure is operating effectively? (Range: 0 - 0)							☑
720	**Rock Check Dam [6000406010010]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?						☑	
730	**Rock Check Dam [6000406010011]** Control Measure is operating effectively? (Range: 0 - 0)							☑
740	**Rock Check Dam [6000406010011]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?						☑	
750	**Rock Check Dam [6000406010012]** Control Measure is operating effectively? (Range: 0 - 0)							☑
760	**Rock Check Dam [6000406010012]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?						☑	
770	**Rock Check Dam [6000406010013]** Control Measure is operating effectively? (Range: 0 - 0)							☑
780	**Rock Check Dam [6000406010013]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?						☑	
790	**Rock Check Dam [6000406010014]** Control Measure is operating effectively? (Range: 0 - 0)							☑
800	**Rock Check Dam [6000406010014]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?						☑	
810	**Rock Check Dam [6000406010015]** Control Measure is operating effectively? (Range: 0 - 0)							☑
820	**Rock Check Dam [6000406010015]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?						☑	
830	**Rock Check Dam [6000406010016]** Control Measure is operating effectively? (Range: 0 - 0)							☑
840	**Rock Check Dam [6000406010016]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?						☑	
850	**Rock Check Dam [6000406010017]** Control Measure is operating effectively? (Range: 0 - 0)							☑
860							☑	

	Rock Check Dam [6000406010017] If "Failed", is control measure in need of maintenance, Repair, or Replacement?					
870	**Rock Check Dam [6000406010018]** Control Measure is operating effectively? (Range: 0 - 0)					☑
880	**Rock Check Dam [6000406010018]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☑	
890	**Rock Check Dam [6000406010019]** Control Measure is operating effectively? (Range: 0 - 0)					☑
900	**Rock Check Dam [6000406010019]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☑	
910	**Rock Check Dam [6000406010020]** Control Measure is operating effectively? (Range: 0 - 0)					☑
920	**Rock Check Dam [6000406010020]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☑	
930	**Rock Check Dam [6000406010021]** Control Measure is operating effectively? (Range: 0 - 0)					☑
940	**Rock Check Dam [6000406010021]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☑	
950	**Rock Check Dam [6000406010022]** Control Measure is operating effectively? (Range: 0 - 0)					☑
960	**Rock Check Dam [6000406010022]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☑	
970	**Gabion [6000407010035]** Control Measure is operating effectively? (Range: 0 - 0)					☑
980	**Gabion [6000407010035]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☑	
990	**Gabion [6000407010036]** Control Measure is operating effectively? (Range: 0 - 0)					☑
1000	**Gabion [6000407010036]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☑	
1010	**Gabion [6000407010037]** Control Measure is operating effectively? (Range: 0 - 0)					☑
1020	**Gabion [6000407010037]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☑	
1030	**Gabion [6000407010038]** Control Measure is operating effectively? (Range: 0 - 0)					☑
1040	**Gabion [6000407010038]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☑	
1050	**Drop inlet with filters [6000409020041]** Control Measure is operating effectively?					☑
1060	**Drop inlet with filters [6000409020041]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☑	
1070	**Drop Inlet with Petro-Plug [6000409010040]** Control Measure is operating effectively?					☑
1080	**Drop Inlet with Petro-Plug [6000409010040]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☑	

Area/Activity exposed to stormwater (identify needed mainteance or a description of corrective actions in relevant task comment).

1100	Material loading/unloading and storage areas inspected?					☑

1110	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1120	Transfer areas for substances in bulk inspected?				☐	☐	☑
1130	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1140	Produce/chemical storage areas (raw material) inspected?				☐	☐	☑
1150	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1160	Liquid tank storage/secondary containment inspected?				☐	☐	☑
1170	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1180	Industrial processing and finished product storage areas inspected?				☐	☐	☑
1190	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1200	Equipment operation and maintenance areas inspected?				☐	☐	☑
1210	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1220	Fueling areas inspected?				☐	☐	☑
1230	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1240	Outdoor vehicle and equipment washing areas inspected?				☐	☐	☑
1250	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1260	Machinery inspected?				☐	☐	☑
1270	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1280	Waste handling and disposal areas inspected?				☐	☐	☑
1290	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1300	Erodible areas/construction inspected?f				☐	☐	☑
1310	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1320	Locations and sources of run-on to the site inspected?				☐	☐	☑
1330	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1340	Non-stormwater/illicit connections inspected?				☐	☑	☐
1350	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1360	Salt storage piles or pile containing salt inspected?				☐	☑	☐
1370	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1380	Dust generation and vehicle tracking inspected?				☐	☐	☑
1390	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1400	Housekeeping (Industrial materials/residues/trash in contact with stormwater) inspected?				☐	☐	☑
1410	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1420	Leaks and spills inspected?				☐	☐	☑
1430	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1440	**Sector P [60004-]** Vehicle storage/maintenance areas inspected?				☐	☐	☑

1450	**Sector P [60004-]** Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☐	☑

Non-Compliance

1470	Free of incidents of observed non-compliance not associated with any of the above? (Range: 0 - 0)	☐	☐	☑

Additional Control Measures

1490	Are permit requirements satisfied with existing control measure(s) not associated with any of the above? (Range: 0 - 0)	☐	☐	☑
	Spill occurred in East (upper) parking lot on 9/20/16. Diesel spilled from a mobile testing unit fuel system (waiting repairs) Spill was mitigated + cleaned - SP immediately. Spill report completed 9/21/16.	☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Leonard Sandoval	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____ **Meter 1:** _____ **Meter 2:** _____

Report:

_____

_____

_____

_____

Signature / Name	Date	Signature / Name	Date

WO ID:_____ Page____ of_____

Signature (lead inspector):_____ Date and Time:_____

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title:_____

Signature:_____ Date:_____

Los Alamos National Lab - ADESH

Work Order MSGP-RI-58978

MSGP Routine Inspection
Printed 10/17/2016 - 1:09 PM

Maintenance Details

Requested By: Banar, Alethea on 10/17/2016 12:59:00 PM
Taken By: Banar, Alethea
Procedure: MSGP Stormwater Industrial Routine Facilty Inspection (EPC-CP-Form-1020.1)
Last PM: N/A
Project: Routine Facility Inspections Oct 2016 (P-MSGP-RI-5140)

Target: 10/31/2016
Priority/Type: / Routine
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard

Contact: Banar, Alethea
Phone: 699-5836

Sched. 26
10/19/16
noon

Reason: MSGP Stormwater Industrial Routine Facility Inspection
Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	Weather Information						
20	Describe the weather at time of inspection in the Weather lookup table. If "Other" is chosen, provide description in task comments of this line. Document the temperature (F°) in the "Reading" field of this line.	63°F Clear			☐	☐	☑
	Within the Facility Boundary						
40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "Failed", describe:				☐	☐	☑
50	If "Failed" has a CAR been previously initiated for this new discharge? (Range: 0 - 0)				☐	☑	☐
60	Is the facility free of discharge of pollutants at the time of inspection? If "Failed" describe. (Range: 0 - 0)				☐	☐	☑
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "Failed" describe: (Range: 0 - 0)				☐	☑ DB	☑
	Outfall Inspection (needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)						
90	**Monitored Outfall [022]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☑
100	**Monitored Outfall [022]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☑
110	**Monitored Outfall [022]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☑
120	**Substantially Identical Outfall [021]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☑
130					☐	☐	☑

	Substantially Identical Outfall [021] Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)						
140	**Substantially Identical Outfall [021]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☑
150	**Substantially Identical Outfall [023]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☑
160	**Substantially Identical Outfall [023]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☑
170	**Substantially Identical Outfall [023]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☑
180	**Substantially Identical Outfall [024]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☑
190	**Substantially Identical Outfall [024]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☑
200	**Substantially Identical Outfall [024]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☑
210	**Substantially Identical Outfall [025]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☑
220	**Substantially Identical Outfall [025]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☑
230	**Substantially Identical Outfall [025]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☑

Control Measures (identify needed maintenance and repairs, failed control measures that need replacment, or a description of corrective actions in relevant task comments).

250	**Asphalt Berm [6000403040027]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
260	**Asphalt Berm [6000403040027]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
270	**Asphalt Berm [6000403040028]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
280	**Asphalt Berm [6000403040028]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
290	**Asphalt Berm [6000403040029]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
300	**Asphalt Berm [6000403040029]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
310	**Asphalt Berm [6000403040030]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
320	**Asphalt Berm [6000403040030]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
330	**Gravel Bags [6000403100025]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
340	**Gravel Bags [6000403100025]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
350	**Gravel Bags [6000403100026]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
360	**Gravel Bags [6000403100026]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐

370	**Concrete/Asphalt Channel/Swale [6000404020031]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
380	**Concrete/Asphalt Channel/Swale [6000404020031]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
390	**Concrete/Asphalt Channel/Swale [6000404020032]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
400	**Concrete/Asphalt Channel/Swale [6000404020032]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
410	**Eco-Block [6000403110024]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
420	**Eco-Block [6000403110024]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
430	**Rock Channel/Swale [6000404030001]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
440	**Rock Channel/Swale [6000404030001]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
450	**Rock Channel/Swale [6000404030023]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
460	**Rock Channel/Swale [6000404030023]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
470	**Rip Rap [6000404060002]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
480	**Rip Rap [6000404060002]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
490	**Rip Rap [6000404060039]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
500	**Rip Rap [6000404060039]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
510	**Earthen Channel/Swale [6000404010033]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
520	**Earthen Channel/Swale [6000404010033]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
530	**Earthen Channel/Swale [6000404010034]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
540	**Earthen Channel/Swale [6000404010034]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
550	**Gabion Swale [6000404090042]** Control Measure is operating effectively?				☐	☐	☑
560	**Gabion Swale [6000404090042]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
570	**Rock Check Dam [6000406010003]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
580	**Rock Check Dam [6000406010003]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
590	**Rock Check Dam [6000406010004]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
600	**Rock Check Dam [6000406010004]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐

610	**Rock Check Dam [6000406010005]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
620	**Rock Check Dam [6000406010005]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
630	**Rock Check Dam [6000406010006]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
640	**Rock Check Dam [6000406010006]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
650	**Rock Check Dam [6000406010007]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
660	**Rock Check Dam [6000406010007]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
670	**Rock Check Dam [6000406010008]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
680	**Rock Check Dam [6000406010008]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
690	**Rock Check Dam [6000406010009]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
700	**Rock Check Dam [6000406010009]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
710	**Rock Check Dam [6000406010010]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
720	**Rock Check Dam [6000406010010]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
730	**Rock Check Dam [6000406010011]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
740	**Rock Check Dam [6000406010011]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
750	**Rock Check Dam [6000406010012]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
760	**Rock Check Dam [6000406010012]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
770	**Rock Check Dam [6000406010013]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
780	**Rock Check Dam [6000406010013]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
790	**Rock Check Dam [6000406010014]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
800	**Rock Check Dam [6000406010014]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
810	**Rock Check Dam [6000406010015]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
820	**Rock Check Dam [6000406010015]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
830	**Rock Check Dam [6000406010016]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
840	**Rock Check Dam [6000406010016]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
850	**Rock Check Dam [6000406010017]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑

860	**Rock Check Dam [6000406010017]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
870	**Rock Check Dam [6000406010018]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
880	**Rock Check Dam [6000406010018]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
890	**Rock Check Dam [6000406010019]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
900	**Rock Check Dam [6000406010019]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
910	**Rock Check Dam [6000406010020]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
920	**Rock Check Dam [6000406010020]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
930	**Rock Check Dam [6000406010021]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
940	**Rock Check Dam [6000406010021]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
950	**Rock Check Dam [6000406010022]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
960	**Rock Check Dam [6000406010022]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
970	**Gabion [6000407010035]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
980	**Gabion [6000407010035]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
990	**Gabion [6000407010036]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
1000	**Gabion [6000407010036]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
1010	**Gabion [6000407010037]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
1020	**Gabion [6000407010037]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
1030	**Gabion [6000407010038]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
1040	**Gabion [6000407010038]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
1050	**Drop inlet with filters [6000409020041]** Control Measure is operating effectively?				☐	☐	☑
1060	**Drop inlet with filters [6000409020041]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
1070	**Drop Inlet with Petro-Plug [6000409010040]** Control Measure is operating effectively?				☐	☐	☑
1080	**Drop Inlet with Petro-Plug [6000409010040]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐

Area/Activity exposed to stormwater (identify needed mainteance or a description of corrective actions in relevant task comment).

1100	Material loading/unloading and storage areas inspected?				☐	☐	☑

1110	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1120	Transfer areas for substances in bulk inspected?				☐	☐	☑
1130	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1140	Produce/chemical storage areas (raw material) inspected?				☐	☐	☑
1150	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1160	Liquid tank storage/secondary containment inspected?				☐	☐	☑
1170	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1180	Industrial processing and finished product storage areas inspected?				☐	☐	☑
1190	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1200	Equipment operation and maintenance areas inspected?				☐	☐	☑
1210	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1220	Fueling areas inspected?				☐	☑	☐
1230	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1240	Outdoor vehicle and equipment washing areas inspected?				☐	☐	☑
1250	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1260	Machinery inspected?				☐	☐	☑
1270	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1280	Waste handling and disposal areas inspected?				☐	☐	☑
1290	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1300	Erodible areas/construction inspected?f				☐	☐	☑
1310	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1320	Locations and sources of run-on to the site inspected?				☐	☐	☑
1330	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1340	Non-stormwater/illicit connections inspected?				☐	☑	☐
1350	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1360	Salt storage piles or pile containing salt inspected?				☐	☑	☐
1370	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1380	Dust generation and vehicle tracking inspected?				☐	☐	☑
1390	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1400	Housekeeping (Industrial materials/residues/trash in contact with stormwater) inspected?				☐	☐	☑
1410	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1420	Leaks and spills inspected?				☐	☐	☑
1430	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1440	**Sector P [60004-]** Vehicle storage/maintenance areas inspected?				☐	☐	☑

1450	**Sector P [60004-]** Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑

Non-Compliance

Tarp came off Sheet metal stored at lower east lot. Need to re-secure.

1470	Free of incidents of observed non-compliance not associated with any of the above? (Range: 0 - 0)				☑	☐	☐

Additional Control Measures

1490	Are permit requirements satisfied with existing control measure(s) not associated with any of the above? (Range: 0 - 0)				☐	☐	☑
					☐	☑	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Jillian Burgin	10/31/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____ **Meter 1:** _____ **Meter 2:** _____

Report:

_____

_____

_____

_____

Signature / Name	Date	Signature / Name	Date

Signature (lead inspector): Jillian E. Burgin Date and Time: 10/26/16 1:30 p.m.

"I confirm the information as recorded is true, accurate and complete."

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Russell Stone, Group Leader DESHS-USS

Signature: Russell Stone Date: 10/27/2016

Los Alamos National Lab - ADESH

Work Order MSGP-RI-59124

MSGP Routine Inspection
Printed 11/1/2016 - 4:58 PM

Maintenance Details

Requested: 11/1/2016 1:15:36 PM
Procedure: MSGP Stormwater Industrial Routine Facilty Inspection (EPC-CP-Form-1020.1)
Last PM: N/A
Project: Routine Facility Inspections Nov 2016 (P-MSGP-5146)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard

Contact:
Phone:

Insp. 11/18/16

Reason: MSGP Stormwater Industrial Routine Facilty Inspection 12:00 - 12:45 p.m.

Weather at inspection:

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	Weather Information						
20	Describe the weather at time of inspection in the Weather lookup table. If "Other" is chosen, provide description in task comments of this line. Document the temperature (F°) in the "Reading" field of this line.	41°F Clear			☐	☐	☑
	Within the Facility Boundary						
40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "Failed", describe:				☐	☐	☑
50	If "Failed" has a CAR been previously initiated for this new discharge? (Range: 0 - 0)				☐	☑	☐
60	Is the facility free of discharge of pollutants at the time of inspection? If "Failed" describe: (Range: 0 - 0)				☐	☐	☑
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "Failed" describe: (Range: 0 - 0)				☐	☐	☑
	Outfall Inspection (needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)						
90	**Monitored Outfall [022]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☑
100	**Monitored Outfall [022]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☑
110	**Monitored Outfall [022]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☑
120	**Substantially Identical Outfall [021]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☑
130	**Substantially Identical Outfall [021]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☑
140	**Substantially Identical Outfall [021]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☑
150	**Substantially Identical Outfall [023]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☑

160	**Substantially Identical Outfall [023]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☑
170	**Substantially Identical Outfall [023]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☑
180	**Substantially Identical Outfall [024]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☑
190	**Substantially Identical Outfall [024]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☑
200	**Substantially Identical Outfall [024]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☑
210	**Substantially Identical Outfall [025]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☑
220	**Substantially Identical Outfall [025]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☑
230	**Substantially Identical Outfall [025]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☑

Control Measures (identify needed maintenance and repairs, failed control measures that need replacment, or a description of corrective actions in relevant task comments).

250	**Asphalt Berm [6000403040027]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
260	**Asphalt Berm [6000403040027]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
270	**Asphalt Berm [6000403040028]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
280	**Asphalt Berm [6000403040028]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
290	**Asphalt Berm [6000403040029]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
300	**Asphalt Berm [6000403040029]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
310	**Gravel Bags [6000403100025]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
320	**Gravel Bags [6000403100025]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
330	**Gravel Bags [6000403100026]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
340	**Gravel Bags [6000403100026]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
350	**Concrete/Asphalt Channel/Swale [6000404020031]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
360	**Concrete/Asphalt Channel/Swale [6000404020031]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
370	**Concrete/Asphalt Channel/Swale [6000404020032]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
380	**Concrete/Asphalt Channel/Swale [6000404020032]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
390					☐	☐	☑

	Eco-Block [6000403110024] Control Measure is operating effectively? (Range: 0 - 0)						
400	**Eco-Block [6000403110024]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
410	**Rock Channel/Swale [6000404030001]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
420	**Rock Channel/Swale [6000404030001]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
430	**Rock Channel/Swale [6000404030023]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
440	**Rock Channel/Swale [6000404030023]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
450	**Rock Channel/Swale [6000404030043]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
460	**Rock Channel/Swale [6000404030043]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
470	**Rip Rap [6000404060002]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
480	**Rip Rap [6000404060002]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
490	**Rip Rap [6000404060039]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
500	**Rip Rap [6000404060039]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
510	**Earthen Channel/Swale [6000404010033]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
520	**Earthen Channel/Swale [6000404010033]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
530	**Earthen Channel/Swale [6000404010034]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
540	**Earthen Channel/Swale [6000404010034]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
550	**Gabion Swale [6000404090042]** Control Measure is operating effectively?				☐	☐	☑
560	**Gabion Swale [6000404090042]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
570	**Rock Check Dam [6000406010003]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
580	**Rock Check Dam [6000406010003]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
590	**Rock Check Dam [6000406010004]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
600	**Rock Check Dam [6000406010004]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
610	**Rock Check Dam [6000406010005]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
620	**Rock Check Dam [6000406010005]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
630	**Rock Check Dam [6000406010006]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑

640	**Rock Check Dam [6000406010006]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
650	**Rock Check Dam [6000406010007]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
660	**Rock Check Dam [6000406010007]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
670	**Rock Check Dam [6000406010008]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
680	**Rock Check Dam [6000406010008]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
690	**Rock Check Dam [6000406010009]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
700	**Rock Check Dam [6000406010009]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
710	**Rock Check Dam [6000406010010]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
720	**Rock Check Dam [6000406010010]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
730	**Rock Check Dam [6000406010011]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
740	**Rock Check Dam [6000406010011]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
750	**Rock Check Dam [6000406010012]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
760	**Rock Check Dam [6000406010012]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
770	**Rock Check Dam [6000406010013]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
780	**Rock Check Dam [6000406010013]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
790	**Rock Check Dam [6000406010014]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
800	**Rock Check Dam [6000406010014]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
810	**Rock Check Dam [6000406010015]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
820	**Rock Check Dam [6000406010015]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
830	**Rock Check Dam [6000406010016]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
840	**Rock Check Dam [6000406010016]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
850	**Rock Check Dam [6000406010017]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
860	**Rock Check Dam [6000406010017]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
870	**Rock Check Dam [6000406010018]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
880					☐	☑	☐

	Rock Check Dam [6000406010018] If "Failed", is control measure in need of maintenance, Repair, or Replacement?						
890	**Rock Check Dam [6000406010019]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
900	**Rock Check Dam [6000406010019]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
910	**Rock Check Dam [6000406010020]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
920	**Rock Check Dam [6000406010020]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
930	**Rock Check Dam [6000406010021]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
940	**Rock Check Dam [6000406010021]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
950	**Rock Check Dam [6000406010022]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
960	**Rock Check Dam [6000406010022]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
970	**Gabion [6000407010035]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
980	**Gabion [6000407010035]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
990	**Gabion [6000407010036]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
1000	**Gabion [6000407010036]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
1010	**Gabion [6000407010037]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
1020	**Gabion [6000407010037]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
1030	**Gabion [6000407010038]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
1040	**Gabion [6000407010038]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
1050	**Drop Inlet with filters [6000409020041]** Control Measure is operating effectively?				☐	☐	☑
1060	**Drop Inlet with filters [6000409020041]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
1070	**Drop Inlet with Petro-Plug [6000409010040]** Control Measure is operating effectively?	CAR# 997 FSR# 161565			☑	☐	☐
1080	**Drop Inlet with Petro-Plug [6000409010040]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	Filters are blown-out need replaced.			☑	☐	☐

Area/Activity exposed to stormwater (identify needed mainteance or a description of corrective actions in relevant task comment).

1100	Material loading/unloading and storage areas inspected?				☐	☐	☑
1110	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1120	Transfer areas for substances in bulk inspected?				☐	☐	☑
1130					☐	☐	☑

	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)						
1140	Produce/chemical storage areas (raw material) inspected?				☐	☐	☑
1150	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1160	Liquid tank storage/secondary containment inspected?				☐	☐	☑
1170	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1180	Industrial processing and finished product storage areas inspected?				☐	☐	☑
1190	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1200	Equipment operation and maintenance areas inspected?				☐	☐	☑
1210	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1220	Fueling areas inspected?				☐	☑	☐
1230	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1240	Outdoor vehicle and equipment washing areas inspected?				☐	☐	☑
1250	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1260	Machinery inspected?				☐	☐	☑
1270	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1280	Waste handling and disposal areas inspected?				☐	☐	☑
1290	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1300	Erodible areas/construction inspected?f				☐	☐	☑
1310	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1320	Locations and sources of run-on to the site inspected?				☐	☐	☑
1330	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1340	Non-stormwater/illicit connections inspected?				☐	☑	☐
1350	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1360	Salt storage piles or pile containing salt inspected?				☐	☑	☐
1370	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1380	Dust generation and vehicle tracking inspected?				☐	☐	☑
1390	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☑
1400	Housekeeping (Industrial materials/residues/trash in contact with stormwater) inspected?				☐	☐	☑
1410	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1420	Leaks and spills inspected?				☐	☐	☑
1430	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑
1440	**Sector P [60004-]** Vehicle storage/maintenance areas inspected?				☐	☐	☑
1450	**Sector P [60004-]** Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☑

Non-Compliance

1470	Free of incidents of observed non-compliance not associated with any of the above? (Range: 0 - 0)				☐	☑

Additional Control Measures

1490	Are permit requirements satisfied with existing control measure(s) not associated with any of the above? (Range: 0 - 0)	CAR# 992 Closed TARP SECURED since last insp.			☐	☑
					☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Leonard Sandoval	11/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____ **Meter 1:** _____ **Meter 2:** _____

Report:

_____

_____

_____

_____

Signature / Name	Date	Signature / Name	Date

Signature (lead inspector): Jillian Burgin Date and Time: 11/18/16 12:45 P.M.

"I confirm the information as recorded is true, accurate and complete."

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Russell Stone, GC DGSHS - UIS

Signature: Russell Stone Date: 11/21/2016

Los Alamos National Lab - ADESH

Work Order MSGP-59442

MSGP Monitoring Stations
Printed 12/7/2016 - 2:12 PM

Maintenance Details

Requested: 12/6/2016 3:51:13 PM
Procedure: MSGP Stormwater Industrial Routine Facility Inspection (EPC-CP-Form-1020.1)
Last PM: 9/21/2016
Project: Routine Facility Inspections Dec 2016 (P-MSGP-RI-5158)

Target: 12/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard

Contact:
Phone:

Insp. 12/19/16 @ 2:15 p.m. by Holly Wheeler / Jillian Burgin

Reason: MSGP Stormwater Industrial Routine Facility Inspection

Precipitation Type:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	Weather Information						
20	Describe the weather at time of inspection in the Weather lookup table. If "Other" is chosen, provide description in task comments of this line. Document the temperature (F°) in the "Reading" field of this line.		plc 32° F		☐	☐	☑
	Within the Facility Boundary						
40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "Failed", describe:				☐	☐	☑
50	If "Failed" has a CAR been previously initiated for this new discharge? (Range: 0 - 0)				☐	☑	☐
60	Is the facility free of discharge of pollutants at the time of inspection? If "Failed" describe: (Range: 0 - 0)				☐	☐	☑
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "Failed" describe: (Range: 0 - 0)				☐	☐	☑
	Outfall Inspection (needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)						
90	**Monitored Outfall [022]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☑
100	**Monitored Outfall [022]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☑
110	**Monitored Outfall [022]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☑
120	**Substantially Identical Outfall [021]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☑
130	**Substantially Identical Outfall [021]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☑
140					☐	☐	☑

	Substantially Identical Outfall [021] Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)						
150	**Substantially Identical Outfall [023]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☑
160	**Substantially Identical Outfall [023]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☑
170	**Substantially Identical Outfall [023]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☑
180	**Substantially Identical Outfall [024]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☑
190	**Substantially Identical Outfall [024]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☑
200	**Substantially Identical Outfall [024]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☑
210	**Substantially Identical Outfall [025]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☑
220	**Substantially Identical Outfall [025]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☑
230	**Substantially Identical Outfall [025]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☑
	Control Measures (identify needed maintenance and repairs, failed control measures that need replacment, or a description of corrective actions in relevant task comments).						
250	**Asphalt Berm [6000403040027]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
260	**Asphalt Berm [6000403040027]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
270	**Asphalt Berm [6000403040028]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
280	**Asphalt Berm [6000403040028]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
290	**Asphalt Berm [6000403040029]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
300	**Asphalt Berm [6000403040029]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
310	**Gravel Bags [6000403100025]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
320	**Gravel Bags [6000403100025]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
330	**Gravel Bags [6000403100026]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
340	**Gravel Bags [6000403100026]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
350	**Concrete/Asphalt Channel/Swale [6000404020031]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
360	**Concrete/Asphalt Channel/Swale [6000404020031]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
370					☐	☐	☑

	Concrete/Asphalt Channel/Swale [6000404020032] Control Measure is operating effectively? (Range: 0 - 0)							
380	**Concrete/Asphalt Channel/Swale [6000404020032]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?					☐	☐	☑
390	**Eco-Block [6000403110024]** Control Measure is operating effectively? (Range: 0 - 0)					☐	☐	☑
400	**Eco-Block [6000403110024]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?					☐	☑	☐
410	**Rock Channel/Swale [6000404030001]** Control Measure is operating effectively? (Range: 0 - 0)					☐	☐	☑
420	**Rock Channel/Swale [6000404030001]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?					☐	☑	☐
430	**Rock Channel/Swale [6000404030023]** Control Measure is operating effectively? (Range: 0 - 0)					☐	☐	☑
440	**Rock Channel/Swale [6000404030023]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?					☐	☑	☐
450	**Rock Channel/Swale [6000404030043]** Control Measure is operating effectively? (Range: 0 - 0)					☐	☐	☑
460	**Rock Channel/Swale [6000404030043]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?					☐	☑	☐
470	**Rip Rap [6000404060002]** Control Measure is operating effectively? (Range: 0 - 0)					☐	☐	☑
480	**Rip Rap [6000404060002]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?					☐	☑	☐
490	**Rip Rap [6000404060039]** Control Measure is operating effectively? (Range: 0 - 0)					☐	☐	☑
500	**Rip Rap [6000404060039]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?					☐	☑	☐
510	**Earthen Channel/Swale [6000404010033]** Control Measure is operating effectively? (Range: 0 - 0)					☐	☐	☑
520	**Earthen Channel/Swale [6000404010033]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?					☐	☑	☐
530	**Earthen Channel/Swale [6000404010034]** Control Measure is operating effectively? (Range: 0 - 0)					☐	☐	☑
540	**Earthen Channel/Swale [6000404010034]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?					☐	☑	☐
550	**Gabion Swale [6000404090042]** Control Measure is operating effectively?					☐	☐	☑
560	**Gabion Swale [6000404090042]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?					☐	☑	☐
570	**Rock Check Dam [6000406010003]** Control Measure is operating effectively? (Range: 0 - 0)					☐	☐	☑
580	**Rock Check Dam [6000406010003]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?					☐	☑	☐
590	**Rock Check Dam [6000406010004]** Control Measure is operating effectively? (Range: 0 - 0)					☐	☐	☑
600	**Rock Check Dam [6000406010004]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?					☐	☑	☐
610						☐	☐	☑

	Rock Check Dam [6000406010005] Control Measure is operating effectively? (Range: 0 - 0)						
620	**Rock Check Dam [6000406010005]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
630	**Rock Check Dam [6000406010006]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
640	**Rock Check Dam [6000406010006]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
650	**Rock Check Dam [6000406010007]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
660	**Rock Check Dam [6000406010007]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
670	**Rock Check Dam [6000406010008]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
680	**Rock Check Dam [6000406010008]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
690	**Rock Check Dam [6000406010009]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
700	**Rock Check Dam [6000406010009]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
710	**Rock Check Dam [6000406010010]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
720	**Rock Check Dam [6000406010010]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
730	**Rock Check Dam [6000406010011]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
740	**Rock Check Dam [6000406010011]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
750	**Rock Check Dam [6000406010012]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
760	**Rock Check Dam [6000406010012]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
770	**Rock Check Dam [6000406010013]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
780	**Rock Check Dam [6000406010013]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
790	**Rock Check Dam [6000406010014]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
800	**Rock Check Dam [6000406010014]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
810	**Rock Check Dam [6000406010015]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
820	**Rock Check Dam [6000406010015]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
830	**Rock Check Dam [6000406010016]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
840	**Rock Check Dam [6000406010016]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
850	**Rock Check Dam [6000406010017]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑

860	**Rock Check Dam [6000406010017]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
870	**Rock Check Dam [6000406010018]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
880	**Rock Check Dam [6000406010018]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
890	**Rock Check Dam [6000406010019]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
900	**Rock Check Dam [6000406010019]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
910	**Rock Check Dam [6000406010020]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
920	**Rock Check Dam [6000406010020]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
930	**Rock Check Dam [6000406010021]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
940	**Rock Check Dam [6000406010021]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
950	**Rock Check Dam [6000406010022]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
960	**Rock Check Dam [6000406010022]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
970	**Gabion [6000407010035]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
980	**Gabion [6000407010035]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
990	**Gabion [6000407010036]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
1000	**Gabion [6000407010036]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
1010	**Gabion [6000407010037]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
1020	**Gabion [6000407010037]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
1030	**Gabion [6000407010038]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☑
1040	**Gabion [6000407010038]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
1050	**Drop inlet with filters [6000409020041]** Control Measure is operating effectively?				☐	☐	☑
1060	**Drop inlet with filters [6000409020041]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
1070	**Drop Inlet with Petro-Plug [6000409010040]** Control Measure is operating effectively?				☐	☐	☑
1080	**Drop Inlet with Petro-Plug [6000409010040]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
1090	**EnviroSoxx w/ MetalLoxx [6000403200044]** Control Measure is operating effectively?				☐	☐	☑
1100					☐	☑	☐

	EnviroSoxx w/ MetalLoxx [6000403200044] If "Failed", is control measure in need of maintenance, Repair, or Replacement?						
1110	**EnviroSoxx w/ MetalLoxx [6000403200045]** Control Measure is operating effectively?				☐	☐	☑
1120	**EnviroSoxx w/ MetalLoxx [6000403200045]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☑	☐
	Area/Activity exposed to stormwater (identify needed mainteance or a description of corrective actions in relevant task comment).						
1140	Material loading/unloading and storage areas inspected?	SEE CARS # 1026, 1027, 1028 Roofing area needs clean-up, metal racks need covered. metal tanks need to be recycled/disposed. Roll-off bin needs covered.			☐	☐	☑
1150	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	various metal in lower yard needs covered or go to scrap/recycle.			☑	☐	☐
1160	Transfer areas for substances in bulk inspected?				☐	☐	☑
1170	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1180	Produce/chemical storage areas (raw material) inspected?				☐	☐	☑
1190	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1200	Liquid tank storage/secondary containment inspected?				☐	☑	☐
1210	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1220	Industrial processing and finished product storage areas inspected?	See 1140 + CARS			☐	☐	☑
1230	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☑	☐	☐
1240	Equipment operation and maintenance areas inspected?	SEE CAR# 1024			☐	☐	☑
1250	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	Remove pump in tray that is filled w/water & frozen.			☑	☐	☐
1260	Fueling areas inspected?				☐	☑	☐
1270	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1280	Outdoor vehicle and equipment washing areas inspected?				☐	☐	☑
1290	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1300	Machinery inspected?				☐	☐	☑
1310	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1320	Waste handling and disposal areas inspected?				☐	☐	☑
1330	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1340	Erodible areas/construction inspected?f				☐	☐	☑
1350	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1360	Locations and sources of run-on to the site inspected?				☐	☐	☑
1370	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1380	Non-stormwater/illicit connections inspected?				☐	☑	☐
1390	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1400	Salt storage piles or pile containing salt inspected?				☐	☑	☐
1410	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐

Tarps need to be replaced

1420	Dust generation and vehicle tracking inspected?				☐	☐	☑
1430	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1440	Housekeeping (Industrial materials/residues/trash in contact with stormwater) inspected?				☐	☐	☑
1450	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
1460	Leaks and spills inspected?	SEE CAR # 1025			☐	☐	☑
1470	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	Cleanup oil spills in front of 60-332 ↓ Upper East Lot on E Side.			☑	☐	☐
1480	**Sector P [60004-]** Vehicle storage/maintenance areas inspected?				☐	☐	☑
1490	**Sector P [60004-]** Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☑	☐
	Non-Compliance						
1510	Free of incidents of observed non-compliance not associated with any of the above? (Range: 0 - 0)				☐	☐	☑
	Additional Control Measures						
1530	Are permit requirements satisfied with existing control measure(s)? If "Failed" describe additional control measures needed. (Range: 0 - 0)				☐	☐	☑
					☐	☑	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Jillian Burgin	12/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____ **Meter 1:** _____ **Meter 2:** _____

Report:

_____

_____

_____

_____

_____ Signature / Name _____ Date _____ Signature / Name _____ Date

Signature (lead inspector): Jillian Burgess, CIEC Date and Time: 12/19/16

"I confirm the information as recorded is true, accurate and complete." (w/Holly Wheeler) 2:15 P.M.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Russell Stone GL DESHS-WTS

Signature: Russell Stone Date: 1/25/2017

Los Alamos
NATIONAL LABORATORY
EST 1943

memorandum

Environmental Protection & Compliance Division
Environmental Compliance Programs (EPC-CP)

To/MS: Leonard Sandoval, DESHS-UIS, P908
Thru/MS: Terrill Lemke, EPC-CP, (E-File) TL
From/MS: Holly Wheeler, EPC-CP, (E-File) HW
Phone/Fax: 667-1312
Symbol: EPC-DO-16-300
Date: OCT 13 2016

Subject: **National Pollutant Discharge Elimination System (NPDES) Permit No. NMR053195, Multi-Sector General Permit (MSGP) Quarterly Visual Assessment (QVA) Forms for April and May of 2016 for the TA-3-22 Power and Steam Plant, TA-60-1 Heavy Equipment Yard, TA-60-2 Warehouse, TA-60 Material Recycling Facility, TA-60 Roads and Grounds, and the TA-60 Asphalt Batch Plant**

Please find attached completed MSGP QVA Forms documenting visual assessments performed during the first quarter of monitoring at the TA-3-22 Power and Steam Plant, TA-60 Heavy Equipment Yard, TA-60-2 Warehouse, TA-60 Material Recycling Facility, TA-60 Roads and Grounds and TA-60 Asphalt Batch Plant. Per Parts 3.2.2 and 5.5 of the 2015 MSGP, the QVA forms shall be incorporated into your MSGP Storm Water Pollution Prevention Plan (SWPPP).

Part 3.2.1 of the 2015 MSGP requires the visual assessment of storm water discharge samples collected from each outfall once each quarter for the entire permit term. Part 3.2.3 allows facilities that are located in an area with a semi-arid climate and/or in an area where freezing conditions exist for an extended period to distribute the quarterly visual assessments during seasons when precipitation runoff occurs. Accordingly, LANS has designated the following MSGP monitoring quarters.

Quarter 1:	April – May	Quarter 2:	June – July
Quarter 3:	August – September	Quarter 4:	October - November

The attached QVA forms document the following information as required by Part 3.2.2 of the 2015 MSGP and were completed by Environmental Compliance Programs (EPC-CP) personnel.

- Sample location;
- Sample collection date and time, and visual assessment date and time for each sample;
- Personnel collecting the sample and performing the visual assessment, and their signatures;
- Nature of the discharge (i.e., runoff or snowmelt);
- Results of observations of the stormwater discharge;
- Probable sources of any observed stormwater contamination (if applicable);
- If applicable, why it was not possible to take a sample within the first 30 minutes of the storm event.

Part 3.2.3 of the 2015 MSGP allows the facility to take a substitute sample during the next qualifying storm event when adverse weather conditions prevent the collection of samples during a specific quarter. Adverse weather conditions are those that are dangerous or create inaccessibility for personnel, or situations that otherwise make sampling impractical, such as drought or extended frozen conditions. Documentation of the rationale for no visual assessment for the quarter must be included in the facility-specific SWPPP.

Please contact Holly Wheeler at 667-1312 (hbenson@lanl.gov) if you have questions regarding the attached QVA documentation. Thank you for your assistance in meeting the requirements of the Laboratory's NPDES 2015 MSGP Permit.

TWL:HLW/lm

Enclosure: 1. Quarterly Visual Assessment Forms, First Quarter, 2016 Monitoring Year

Facility Name	Sampling Station	Work Order #
TA-3-22 Power & Steam Plant	MSGP00901	MSGP-53594
TA-3-22 Power & Steam Plant	MSGP00801	MSGP-53786
TA-3-22 Power & Steam Plant	MSGP01001	MSGP-53787
TA-3-22 Power & Steam Plant	MSGP00601	MSGP-53788
TA-3-22 Power & Steam Plant	MSGP01101	MSGP-53789
TA-3-22 Power & Steam Plant	MSGP00901	MSGP-53804
TA-3-22 Power & Steam Plant	MSGP00801	MSGP-54176
TA-3-22 Power & Steam Plant	MSGP01001	MSGP-54177
TA-3-22 Power & Steam Plant	MSGP00601	MSGP-54178
TA-3-22 Power & Steam Plant	MSGP01101	MSGP-54179
TA-60-1 Heavy Equipment Yard	MSGP02201	MSGP-53601
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-53795
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-53796
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-54185
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-54212
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-54213
TA-60 MRF	MSGP02901	MSGP-53612
TA-60 MRF	MSGP02901	MSGP-53808
TA-60 Roads and Grounds	MSGP03201	MSGP-53606
TA-60 Roads and Grounds	MSGP03201	MSGP-53810
TA-60-2 Warehouse	MSGP02801	MSGP-54188
TA-60-2 Warehouse	MSGP02601	MSGP-53602
TA-60-2 Warehouse	MSGP02601	MSGP-53798
TA-60-2 Warehouse	MSGP02601	MSGP-53797
TA-60-2 Warehouse	MSGP02601	MSGP-54187
TA-60 Asphalt Batch Plant	MSGP04301	NONE

Cy: Russel Stone, DESHS-UIS, (E-File)
Jillian Burgin, DESHS-CPCS, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)

Los Alamos National Lab

Work Order MSGP-53601

MSGP Monitoring Stations
Printed 5/2/2016 - 10:33 AM (Duplicate Copy)

Maintenance Details

Requested: 4/28/2016 12:51:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 4/20/2016
Project: MSGP Visual Assessments Q1 2016 (P-MSGP-4708)
Target: 5/31/2016
Priority/Type: / Inspection

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
MSGP02201

Contact:
Phone:

Reason: MSGP Q1 2016 Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP1			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)	filtered			☑	☐	☐
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/15/14	1436		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/15/14	1436		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/18/14	1428		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	RI	0.15 in		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
90	Previous storm ended >72 hours before start of storm? If "Failed", provide reason in comments of this line.	Previous storm occurred less than 72hrs			☒	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☒	☐	☑
120	Is sample oderless? If "Failed" document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed" document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed" describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed" document observation using the Settled Solids lookup table. If				☐	☐	☑

	"other" is chosen from the lookup table, provide description in comments of this line.			
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	☐	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.	☐	☐	☐
180	Is sample devoid of an oil sheen? If "Failed" describe color and thickness (e.g. flecks, globs) in the comments of this line.	☐	☐	☐
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line.	☐	☐	☐
		☐	☐	☐

Labor Report

Completed: _____ Failure: _____ Meter 1: _____ Meter 2: _____

Report:

WO ID: MSGP-5360 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 5/15/16 1436

Signature (conducting visual assessment): MSL Date and Time: 5/18/16 1428

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R Greggs, EPC-CP Group Leader

Signature: A R Greggs Date: 6/9/2016

Los Alamos National Lab

Work Order MSGP-53795

MSGP Monitoring Stations
Printed 5/2/2016 - 11:43 AM

Maintenance Details

Requested: 5/2/2016 11:41:01 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: N/A
Project: Sio Visual Assessments 5/2/16 (P-MSGP-4731)

Target: 5/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Contact: Holly Wheeler
Phone: 667-1312

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.		April - May		☐	☐	☒
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☒
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		05/01/16 13:50		☐	☐	☒
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		05/01/16 1350		☐	☐	☒
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		05/05/16 12:49		☐	☐	☒
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		Snow Melt 0.36 in. total precip. possible 3rd storm event		☐	☐	☒
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line. Personnel not present during non-work hours. Multiple storm events occurred over the weekend. Not safe				☒	☐	☐
90	Previous storm ended >72 hours before start of storm? If "Failed", provide reason in comments of this line. Previous storm event occurred 4/30/16, 0.22 in total precip. possible				☒	☐	☐
Parameters							
110	Is sample colorless? If "Failed", describe.		dark tan		☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☒
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		Opaque		☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		Vegetation		☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If		Fine		☒	☐	☐

	"other" is chosen from the lookup table, provide description in comments of this line.					
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.		☐	☐	☒
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line.		☐	☐	☒
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line.		☐	☐	☒
			☐	☐	☐

Documents

ID	Document Name	Type	Location
MSGP VA signature	MSGP Visual Assessment Signature	Signature page	View

Labor Report

Completed: _____ **Failure:** _____

Report:

dlw 10/27/2016

WO ID: MSGP-53795 Page 3 of 3

Signature (collecting sample): Holly Wheeler Date and Time: 05/05/16 12:52

Signature (conducting visual assessment): Holly Wheeler Date and Time: 05/05/16 12:52

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Greggs, EPC-CP Group Leader

Signature: A R Greggs Date: 6/9/2016

Los Alamos National Lab

Work Order MSGP-53796

MSGP Monitoring Stations
Printed 5/2/2016 - 11:43 AM

Maintenance Details

Requested: 5/2/2016 11:41:02 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: N/A
Project: Sio Visual Assessments 5/2/16 (P-MSGP-4731)

Target: 5/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Contact: Holly Wheeler
Phone: 667-1312

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.				☐	☒	☐
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☒	☐
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).				☐	☒	☐
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).				☐	☒	☐
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).				☐	☒	☐
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.				☐	☒	☐
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☒	☐
90	Previous storm ended >72 hours before start of storm? If "Failed", provide reason in comments of this line.				☐	☒	☐
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☒	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☒	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table. provide description in comments of this line.				☐	☒	☐
140	Is sample free of floating solids? If "Failed" describe if raw or waste material(s) in the comments of this line.				☐	☒	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table If				☐	☒	☐

	"other" is chosen from the lookup table, provide description in comments of this line.			
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	☐	☒	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.	☐	☒	☐
180	Is sample devoid of an oil sheen? If "Failed" describe color and thickness (e.g. flecks, globs) in the comments of this line.	☐	☒	☐
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line.	☐	☒	☐
		☐	☒	☐

Documents

ID	Document Name	Type	Location
MSGP VA signature	MSGP Visual Assessment Signature	Signature page	View

Labor Report

Completed: _____ Failure: _____

Report:

Appears outfall flowed, however no pre-existing was collected in the jar. No VAS was assessment was performed.

WO ID: INSOP-5371 Page 3 of 3

Signature (collecting sample): [signature] Date and Time: 5/5/16 12:58

Signature (conducting visual assessment): N/A Date and Time: _____

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Greggs, EPC-CD Group Leader

Signature: A R Greggs Date: 6/9/2016

Los Alamos National Lab

Work Order MSGP-54185

MSGP Monitoring Stations
Printed 5/16/2016 - 11:03 AM

Maintenance Details

Requested: 5/16/2016 10:53:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 5/5/2016
Project: SIO Visual Assessments 5-16-16 (P-MSGP-4768)

Target: 5/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Contact:
Phone:

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample Information							
30	Document the monitoring Period by using the Monitoring Period lookup table.				☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		05/9/16 16:10		☐	☐	☒
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		05/9/16 16:40		☐	☐	☒
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		05/9/16 16:42		☐	☐	☒
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		Rain 0.08"		☐	☐	☐
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☒
Parameters							
110	Is sample colorless? If "Failed", describe.		Light Tan		☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☒
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☒
140	Is sample free of floating solids? If "Failed" describe if raw or waste material(s) in the comments of this line.				☐	☐	☒
150	Is sample free of settled solids? If "Failed" document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		Fine.		☒	☐	☐
160					☐	☐	☐

	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.	☐	☐	☒
180	Is sample devoid of an oil sheen? If "Failed" describe color and thickness (e.g. flecks, globs) in the comments of this line.	☐	☐	☒
190	Is sample free of other obvious indicators of pollution? If "Failed" describe in the comments of this line.	☐	☐	☒
		☐	☐	☐

Labor Report

Completed: _____ Failure: _____

Report: Data logger was installed on 05/19/11, at 17:03 – 1093439

Sensor S/N

Kathy 05/19/11

WO ID: M.SGP-54185 Page 3 of 3

Signature (collecting sample): [signature] Date and Time: 05/19/16 16:47

Signature (conducting visual assessment): [signature] Date and Time: 05/19/16 16:47

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: [signature] Date: 6/9/2016

Los Alamos National Lab

Work Order MSGP-54212

MSGP Monitoring Stations
Printed 5/16/2016 - 12:23 PM

Maintenance Details

Requested: 5/16/2016 11:58:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: N/A
Project: SIO Visual Assessments 5-16-16 (P-MSGP-4768)

Target: 5/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Contact:
Phone:

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample Information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP1			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	Approx. 5/19/16 @ 16:10			☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	Approx. 5/19/16 @ 16:10			☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/20/16	2:37		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain	0.08"		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Gray			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Musty			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Cloudy			☑	☐	☐
140	Is sample free of floating solids? If "Failed" describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed" document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine			☑	☐	☐
160					☐	☐	☑

	Is sample free of suspended solids? If "Failed" document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.	☐	☐	☐
180	Is sample devoid of an oil sheen? If "Failed" describe color and thickness (e.g. flecks, globs) in the comments of this line.	☐	☐	☐
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line.	☐	☐	☐
		☐	☐	☐

Labor Report

Completed: _____ Failure: _____

Report:

Signature (collecting sample): [signature] Date and Time: 5/20/16 2:39

Signature (conducting visual assessment): [signature] Date and Time: 5/20/16 2:37

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R Griggs EPC-CP Group Leader

Signature: [signature] Date: 6/9/2016

Los Alamos National Lab

Work Order MSGP-54213

MSGP Monitoring Stations
Printed 5/16/2016 - 12:23 PM

Maintenance Details

Requested: 5/16/2016 11:58:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: N/A
Project: SIO Visual Assessments 5-16-16 (P-MSGP-4768)

Target: 5/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Contact:
Phone:

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample Information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP1			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	approx. 5/14/16 @ 16:10			☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	approx. 5/14/16 @ 16:20			☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/20/16 MPF. ~~5/19/16~~ 2:37 BGS 5/20/16			☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain water 0.03"			☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Clear			☐	☐	☑
120	Is sample oderless? If "Failed" document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed" document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed" document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fines			☑	☐	☐
160					☐	☐	☑

	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	☐	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed" describe color and thickness (e.g. flecks, globs) in the comments of this line.	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line.	☐	☐	☑
		☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: 54213 Page 3 of 3

Signature (collecting sample): Brian Schilling Date and Time: 5/20/2016 2:32

Signature (conducting visual assessment): Brian Schilling Date and Time: 5/20/16 2:37

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R Griggs EPC-CO Group Leader

Signature: A R Griggs Date: 6/9/2016

Los Alamos
NATIONAL LABORATORY
EST. 1943

memorandum

Environmental Protection & Compliance Division
Environmental Compliance Programs (EPC-CP)

To/MS: Jillian Burgin, DESHS-UIS,
Thru/MS: Terrill Lemke, EPC-CP, (E-File) Exc
From/MS: Holly Wheeler, EPC-CP, (E-File) hw
Phone/Fax: 667-1312
Symbol: EPC-DO:17-018
Date: JAN 12 2017

Subject: **National Pollutant Discharge Elimination System (NPDES) Permit No. NMR053195, Multi-Sector General Permit (MSGP) Quarterly Visual Assessment (QVA) Forms for June and July of 2016 for the TA-60-1 Heavy Equipment Yard**

Please find attached completed MSGP QVA Forms documenting visual assessments performed during the second quarter of monitoring at the TA-60-1 Heavy Equipment Yard. Per Parts 3.2.2 and 5.5 of the 2015 MSGP, the QVA forms shall be incorporated into your MSGP Storm Water Pollution Prevention Plan (SWPPP).

Part 3.2.1 of the 2015 MSGP requires the visual assessment of storm water discharge samples collected from each outfall once each quarter for the entire permit term. Part 3.2.3 allows facilities that are located in an area with a semi-arid climate and/or in an area where freezing conditions exist for an extended period to distribute the quarterly visual assessments during seasons when precipitation runoff occurs. Accordingly, LANS has designated the following MSGP monitoring quarters.

Quarter 1:	April – May	Quarter 2:	June – July
Quarter 3:	August – September	Quarter 4:	October - November

The attached QVA forms document the following information as required by Part 3.2.2 of the 2015 MSGP and were completed by Environment Compliance Programs (EPC-CP) personnel.

- Sample location;
- Sample collection date and time, and visual assessment date and time for each sample;
- Personnel collecting the sample and performing the visual assessment, and their signatures;
- Nature of the discharge (i.e., runoff or snowmelt);
- Results of observations of the stormwater discharge;
- Probable sources of any observed stormwater contamination (if applicable);
- If applicable, why it was not possible to take a sample within the first 30 minutes of the storm event.

Part 3.2.3 of the 2008 MSGP allows the facility to take a substitute sample during the next qualifying storm event when adverse weather conditions prevent the collection of samples during a specific quarter. Adverse weather conditions are those that are dangerous or create inaccessibility for personnel, or situations that otherwise make sampling impractical, such as drought or extended frozen

conditions. Documentation of the rationale for no visual assessment for the quarter must be included in the facility-specific SWPPP.

Please contact Holly Wheeler at 667-1312 (hbenson@lanl.gov) if you have questions regarding the QVA documentation. Thank you for your assistance in meeting the requirements of the Laboratory's NPDES 2015 MSGP Permit.

TWL:HLW/am

Enclosure: 1. Quarterly Visual Assessment Forms, Second Quarter, 2016 Monitoring Year

Facility Name	Sampling Station	Work Order #
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-54186
TA-60-1 Heavy Equipment Yard	MSGP02201	MSGP-54680
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-54711
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-54712
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-54713
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-55361
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-55362
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-55363
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-55364
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-56610
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-56611
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-56612
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-56613
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-57138
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-57139
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-57143
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-57144

Copy: Russell Stone, DESHS-UIS, (E-File)
Adesh-records@lanl.gov, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)

ENCLOSURE 1

Quarterly Visual Assessment Forms
Second Quarter, 2016 Monitoring Year

EPC-DO-17-018

Date: JAN 12 2017

Los Alamos National Lab

Work Order MSGP-54186

MSGP Monitoring Stations
Printed 6/1/2016 - 2:03 PM

Maintenance Details

Requested: 5/16/2016 10:53:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 5/5/2016
Project: SIO Visual Assessments wk 5/30/16 (P-MSGP-4806)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	06/07/16 @ apx 15:26		tdw 06/09/16	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	06/07/16 @ apx 1526		tdw 06/09/16	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/8/16	1432		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.07"	tdw 06/09/16	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	O1			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C3			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL1			☑	☐	☐
160					☑	☐	☐

	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SUSSOL2				
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.				☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line.				☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line.				☐	☑
					☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: 54186 Page 3 of 3

Signature (collecting sample): [signature] Date and Time: 6/7/16 1526

Signature (conducting visual assessment): [signature] Date and Time: 6/8/16 1432

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Gregg, EPC-CP Group Leader

Signature: A R Gregg Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-54680

MSGP Monitoring Stations
Printed 5/31/2016 - 6:18 PM

Maintenance Details

Requested: 5/31/2016 6:06:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 5/18/2016
Project: MSGP Visual Assessments wk 5/30/16 (P-MSGP-4804)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
MSGP02201

Contact:
Phone:

Reason: MSGP 2016 Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	Q2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/4/16	20:04		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/4/16	20:04		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/6/16	1558		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PRE 0.2 in.			☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Grey			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Cloudy			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine			☑	☐	☐
160					☐	☐	☑

	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.						
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.				☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line.				☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line.				☐	☐	☑
					☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____ **Meter 1:** _____ **Meter 2:** _____

Report:

WO ID: MSGP-54680 Page 3 of 3

Signature (collecting sample): [signature] Date and Time: 6/4/16 20:04

Signature (conducting visual assessment): [signature] Date and Time: 6/6/16 1550

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Conegg, EPC-CP Group Leader

Signature: A R Conegg Date: 9/14/2016

Los Alamos National Lab - ADESH

Work Order MSGP-54711

MSGP Monitoring Stations
Printed 9/8/2016 - 10:44 AM

Maintenance Details

Requested: 6/1/2016 12:29:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 6/3/2016
Project: SIO Visual Assessments wk 5/30/16 (P-MSGP-4806)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Monitoring Period: MP2
Odor: O1
Clarity: C2
Settled Solids: SETSOL1
Suspended Solids: SUSSOL3
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table. **Comments: Q2**			AS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			AS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format). **Comments: 6/1/16 at approx 15:00 HLW 6/3/15**		6/1/16 15:00	AS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format). **Comments: 6/1/16 at approx 15:00 HLW 6/3/15**		6/1/16 15:00	AS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format). **Comments: 6/3/16 12:20 PM**		6/3/16 12:20	AS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line. **Comments: Rain 0.1" HLW 6/3/16**		0.1 in	AS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			AS	☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe. **Comments: Grey**			AS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line. **Comments: Musty**			AS	☒	☐	☐

130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line. **Comments: Cloudy**			AS	☒		
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line. **Comments: Veg / Insects**			AS	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line. **Comments: Fine**			AS	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line. **Comments: Veg**			AS	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			AS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			AS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			AS	☐	☐	☑

Labor Report

Completed: 6/3/2016 12:20:00 PM **Failure:** _____

Report: _____

Signature / Name	Date	Signature / Name	Date

WO ID: MSGP-54711 Page 3 of 3

Signature (collecting sample): [signature] Date and Time: 6/3/16 1220

Signature (conducting visual assessment): [signature] Date and Time: 6/3/16 1220

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: EPC-CP Group Leader, Anthony R. Gariego

Signature: [signature] Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-54712

MSGP Monitoring Stations
Printed 6/1/2016 - 2:03 PM

Maintenance Details

Requested: 6/1/2016 1:29:25 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 5/20/2016
Project: SIO Visual Assessments wk 5/30/16 (P-MSGP-4806)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	Q2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	06/01/16 Apx 14:42		HSW	06/03/16	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	06/01/16 Apx 14:42		HSW	06/03/16	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/3/16	1146		☐	☐	☐
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain 0.1		HSW	06/03/16	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Musty			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Opaque			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine			☑	☐	☐
160					☐	☐	☑

	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.						
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.				☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line.				☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line.				☐	☐	☑
					☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: 54712 Page 3 of 3

Signature (collecting sample): MSH. Date and Time: ~~6/1/16 1442~~ 6/3/16 1146

Signature (conducting visual assessment): MSH Date and Time: 6/3/16 1146

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Greggs, EPC-CP Group Leader

Signature: A R Greggs Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-54713

MSGP Monitoring Stations
Printed 6/1/2016 - 2:03 PM

Maintenance Details

Requested: 6/1/2016 1:29:26 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 5/20/2016
Project: SIO Visual Assessments wk 5/30/16 (P-MSGP-4806)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	Q2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	06/01/16 at appx 14:44		MBW 06/03/16	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	06/01/16 at appx 14:44		MBW 06/03/16	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/3/16	1143		☐	☐	☐
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain 0.1"		MBW 6/03/16	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Musty			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Opaque			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg.			☑	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine			☑	☐	☐
160		Veg			☑	☐	☐

	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.						
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.				☐	☐	☐
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line.				☐	☐	☐
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line.				☐	☐	☐
					☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: MSGP.54713 Page 3 of 3

Signature (collecting sample): MSH. Date and Time: 6/1/16 1444

Signature (conducting visual assessment): MSH. Date and Time: 6/3/16 1143

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Consiggs, EPC-CP Group Leader

Signature: A R Consiggs Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-55361

MSGP Monitoring Stations
Printed 6/20/2016 - 5:40 PM

Maintenance Details

Requested: 6/20/2016 5:28:52 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 6/8/2016
Project: SIO Visual Assessments wk 6-20-16 (P-MSGP-4868)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	PR2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/15/16 10:55am approx.			☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/15/16 10:55am approx			☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/20/16 15:42			☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.31 in. AKO 7/27/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Musty			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Opaque			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Settled			☑	☐	☐
160					☐	☐	☑

	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.						
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.				☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line.				☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line.				☐	☐	☑
					☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: SJ361 Page 3 of 3

Signature (collecting sample): MJSM. Date and Time: 7/15/16 10:56

Signature (conducting visual assessment): MJSM. Date and Time: 7/20/16 15:42

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Scaraggi, EPC-CP Group Leader

Signature: A R Scaraggi Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-55362

MSGP Monitoring Stations
Printed 6/20/2016 - 5:40 PM

Maintenance Details

Requested: 6/20/2016 5:28:53 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 6/8/2016
Project: SIO Visual Assessments wk 6-20-16 (P-MSGP-4868)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/21/16	12:20		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/21/16	12:20		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/21/16	1439		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.21 in. AKB 7/27/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C2			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
160					☐	☐	☑

	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.						
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.				☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line.				☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line.				☐	☐	☑
					☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: 55362 Page 3 of 3

Signature (collecting sample): MSLP. Date and Time: 7/21/14

Signature (conducting visual assessment): MSLP. Date and Time: 7/21/16 1439

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Carnegie, EPC-CP Group leader

Signature: A R Carnegie Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-55363

MSGP Monitoring Stations
Printed 6/20/2016 - 5:40 PM

Maintenance Details

Requested: 6/20/2016 5:28:54 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 6/8/2016
Project: SIO Visual Assessments wk 6-20-16 (P-MSGP-4868)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/21/16	12:20		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/21/16	12:20		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/21/16	1457		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.21 in. AMB 7/27/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	O1			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C1			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL1			☑	☐	☐
160					☐	☐	☑

	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.						
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.				☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line.				☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line.				☐	☐	☑
					☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: 55363 Page 3 of 3

Signature (collecting sample): MPSHL Date and Time: 7/21/16

Signature (conducting visual assessment): MPSHL Date and Time: 7/21/16 1457

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Caviggs, EPC - CP Group Leader

Signature: A R Caviggs Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-55364

MSGP Monitoring Stations
Printed 6/20/2016 - 5:40 PM

Maintenance Details

Requested: 6/20/2016 5:28:54 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 6/8/2016
Project: SIO Visual Assessments wk 6-20-16 (P-MSGP-4868)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/15/16	10:55am approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/15/16	10:55am approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/20/16	15:24		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.31 in. AKD 7/27/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C3			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SetSol 1 & 2			☑	☐	☐
160					☐	☐	☐

	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SuSS02Z					
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.				☐	☐	☒
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line.				☐	☐	☒
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line.				☐	☐	☒
					☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: 55364 Page 3 of 3

Signature (collecting sample): MSLe Date and Time: 7/15/16 10:55 am

Signature (conducting visual assessment): MSLe Date and Time: 7/20/16 15:24

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Greggs, EPC-CP Group Leader

Signature: A R Greggs Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-56610

MSGP Monitoring Stations
Printed 7/26/2016 - 10:18 AM

Maintenance Details

Requested: 7/26/2016 10:13:36 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/20/2016
Project: SIO Visual Assessments 7-25-16 (P-MSGP-4983)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/25/16	13:25 approx.		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/25/16	13:25 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/26/16	1059		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.08 in. AMD 8/1/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Musty	O1		☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Cloudy	C2		☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine SETSOL1			☑	☐	☐
160					☐	☐	☑

	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.						
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☐	☑
					☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: MSGP.5610 Page 3 of 3

Signature (collecting sample): MSL. Date and Time: 7/25/14 1325

Signature (conducting visual assessment): MSL. Date and Time: 7/26/14 1059

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Conteggi; EPC-CP Group Leader

Signature: A R Conteggi Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-56611

MSGP Monitoring Stations
Printed 7/26/2016 - 10:18 AM

Maintenance Details

Requested: 7/26/2016 10:13:37 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/20/2016
Project: SIO Visual Assessments 7-25-16 (P-MSGP-4983)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/31/16	1300 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/31/16	1300 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/1/16	1359		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	1 in. Antecedent		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C3			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL1			☑	☐	☐
160					☐	☐	☐

	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SUSSOL2				
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)					☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)					☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)					☑

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: MSGP-56611 Page 3 of 3

Signature (collecting sample): MSLL Date and Time: 7/31/16 1300

Signature (conducting visual assessment): MSLL. Date and Time: 8/1/16 1359

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Greggs, EPC-CP Group Leader

Signature: A R Greggs Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-56612

MSGP Monitoring Stations
Printed 7/26/2016 - 10:18 AM

Maintenance Details

Requested: 7/26/2016 10:13:37 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/20/2016
Project: SIO Visual Assessments 7-25-16 (P-MSGP-4983)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/31/16	1300 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/31/16	1300 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/1/16	1355		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	1 in. AMB 8/1/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL2			☑	☐	☐
160					☐	☐	☑

	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.						
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☐	☑
					☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: MSGP-56612 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 7/31/16 1300

Signature (conducting visual assessment): MSL Date and Time: 8/1/16 1355

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Greggs, EPC-CP Group Leader

Signature: A R Greggs Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-56613

MSGP Monitoring Stations
Printed 7/26/2016 - 10:18 AM

Maintenance Details

Requested: 7/26/2016 10:13:38 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/20/2016
Project: SIO Visual Assessments 7-25-16 (P-MSGP-4983)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/25/16	13:25 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/25/16	13:25 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/26/16	1045		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.08 in. Δ=8/1/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Cloudy Cl			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Pine Needles			☑	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine Sediment			☑	☐	☐
160					☑	☐	☐

	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Pin Needle Suspect					
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☐	☒
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☐	☒
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☐	☒
					☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: MSGP-5613 Page 3 of 3

Signature (collecting sample): MSL. Date and Time: 7/25/16 13:25

Signature (conducting visual assessment): MSL. Date and Time: 7/26/16 1045

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Griggs, EPC Group Leader

Signature: A R Griggs Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-57138

MSGP Monitoring Stations
Printed 8/3/2016 - 9:55 AM

Maintenance Details

Requested: 8/3/2016 9:43:59 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/26/2016
Project: SIO Visual Assessments 8/1/16 (P-MSGP-5014)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/31/16	1300 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/31/16	1300 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/01/16	1438		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.4 in. Aug-Sept 16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Grayish			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	CL			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL			☑	☐	☐

160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☐	☑
					☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: MSGP.57138 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 7/31/16 1300

Signature (conducting visual assessment): MSL. Date and Time: 8/01/16 1438

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Greggs, ER-CP Group Leader

Signature: A R Greggs Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-57139

MSGP Monitoring Stations
Printed 8/3/2016 - 9:55 AM

Maintenance Details

Requested: 8/3/2016 9:43:59 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/26/2016
Project: SIO Visual Assessments 8/1/16 (P-MSGP-5014)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/31/16	1344		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/31/16	1344		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/01/16	1353		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	1 in. Aug 6/10/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C1			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
160					☑	☐	☐

	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SnSSolZ				
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☐	☑
					☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: MSGP-57139 Page 3 of 3

Signature (collecting sample): MSL. Date and Time: 7/31/16 1344

Signature (conducting visual assessment): MSL. Date and Time: 8/01/16 1353

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Griggs, ER-CP Group Leader

Signature: A R Griggs Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-57143

MSGP Monitoring Stations
Printed 8/3/2016 - 9:55 AM

Maintenance Details

Requested: 8/3/2016 9:53:48 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/26/2016
Project: SIO Visual Assessments 8/1/16 (P-MSGP-5014)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	M02			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/29/16	1144		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/29/16	1144		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/29/16	1308		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.07 in. AKB 8/4/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		01		☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		C1		☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL2			☑	☐	☑ MS
160					☐	☐	☐

	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.						
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☐	☑
					☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: MSGP-57143 Page 3 of 3

Signature (collecting sample): MSL. Date and Time: 7/29/16 1144

Signature (conducting visual assessment): MSL. Date and Time: 7/29/16 1308

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Coriaggs, EPC-CP Group Leader

Signature: A R Coriaggs Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-57144

MSGP Monitoring Stations
Printed 8/3/2016 - 9:55 AM

Maintenance Details

Requested: 8/3/2016 9:53:50 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/26/2016
Project: SIO Visual Assessments 8/1/16 (P-MSGP-5014)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/29/16	1144 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/29/16	1144 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/29/16	1304		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.07 in. AMS 8/4/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	O1			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C1			☑	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
160					☐	☐	☐

	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.						
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☐	☑
					☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: MSGP.57144 Page 3 of 3

Signature (collecting sample): MPSL. Date and Time: 7/20/16 1144

Signature (conducting visual assessment): MPSL. Date and Time: 7/20/16 1304

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Goggs, EPC-CP Group Leader

Signature: A R Goggs Date: 9/14/2016

Los Alamos
NATIONAL LABORATORY
EST.1943

memorandum

Environmental Protection & Compliance Division
Environmental Compliance Programs (EPC-CP)

To/MS: Jillian Burgin, DESHS-UIS, B274
Thru/MS: Terrill Lemke, EPC-CP, (E-File)
From/MS: Holly Wheeler, EPC-CP, (E-File)
Phone/Fax: 667-1312
Symbol: EPC-DO: 17-042

Date: JAN 17 2017

Subject: **National Pollutant Discharge Elimination System (NPDES) Permit No. NMR053195, Multi-Sector General Permit (MSGP) Quarterly Visual Assessment (QVA) Forms for August and September of 2016 for the TA-60-1 Heavy Equipment Yard**

Please find attached completed MSGP QVA Forms documenting visual assessments performed during the third quarter of monitoring at the TA-60-1 Heavy Equipment Yard. Per Parts 3.2.2 and 5.5 of the 2015 MSGP, this memorandum along with all of the attached QVA forms shall be incorporated into your MSGP Storm Water Pollution Prevention Plan (SWPPP).

Part 3.2.1 of the 2015 MSGP requires the visual assessment of storm water discharge samples collected from each outfall once each quarter for the entire permit term. Part 3.2.3 allows facilities that are located in an area with a semi-arid climate and/or in an area where freezing conditions exist for an extended period to distribute the quarterly visual assessments during seasons when precipitation runoff occurs. Accordingly, Los Alamos National Security LLC (LANS) has designated the following MSGP monitoring quarters.

Quarter 1:	April – May	Quarter 2:	June – July
Quarter 3:	August – September	Quarter 4:	October - November

The attached QVA forms document the following information as required by Part 3.2.2 of the 2015 MSGP and were completed by Deployed Environment, Safety, and Health Services (DESHS) and Environmental Compliance Programs (EPC-CP) personnel.

- Sample location;
- Sample collection date and time, and visual assessment date and time for each sample;
- Personnel collecting the sample and performing the visual assessment, and their signatures;
- Nature of the discharge (i.e., runoff or snowmelt);
- Results of observations of the stormwater discharge;
- Probable sources of any observed stormwater contamination (if applicable);
- If applicable, why it was not possible to take a sample within the first 30 minutes of the storm event.

The signed certification statement contained in this memorandum satisfies the duly authorized signatory requirement for the QVAs completed by EPC-CP representatives contained in Enclosure 1.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Anthony R. Grieggs, EPC-CP Group Leader
(Print name and title)
Los Alamos National Laboratory

Manager Signature

1-17-17
Date

Part 3.2.3 of the 2015 MSGP allows the facility to take a substitute sample during the next qualifying storm event when adverse weather conditions prevent the collection of samples during a specific quarter. Adverse weather conditions are those that are dangerous or create inaccessibility for personnel, or situations that otherwise make sampling impractical, such as drought or extended frozen conditions. Documentation of the rationale for no visual assessment for the quarter must be included in the facility-specific SWPPP.

Please contact Holly Wheeler at 667-1312 (hbenson@lanl.gov) if you have questions regarding the QVA documentation. Thank you for your assistance in meeting the requirements of the Laboratory's NPDES 2015 MSGP Permit.

TWL:HLW/am

Enclosure: 1. Quarterly Visual Assessment Forms Requiring a Certification Statement Signature, Third Quarter, 2016 Monitoring Year

Facility Name	Sampling Station	Work Order #
TA-60-1 Heavy Equipment Yard	MSGP02201	MSGP-56954
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-57543
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-57544
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-57545
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-57546
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-57562
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-57563
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-57564
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-57565
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-57989
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-57990
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-57991
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-57992
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-58178
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-58321
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-58322
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-58323
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-58324
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-58411
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-58412
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-58413
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-58414
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-58500
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-58501
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-58502
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-58503
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-58512
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-58513
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-58514
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-58548
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-58549
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-58550
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-58617
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-58619
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-58825
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-58826

Copy: Russell Stone, DESHS-UIS, (E-File)
Adesh-records@lanl.gov, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)

ENCLOSURE 1

Quarterly Visual Assessment Forms Requiring a Certification Statement Signature

Third Quarter, 2016 Monitoring Year

EPC-DO:17-042

Date: JAN 17 2017

Los Alamos National Lab

Work Order MSGP-56954

MSGP Monitoring Stations
Printed 8/1/2016 - 9:45 AM

Maintenance Details

Requested: 8/1/2016 9:43:51 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 6/6/2016
Project: Visual Assessments wk 8/1/16 (P-MSGP-5007)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
MSGP02201

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/4/16	1917		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/4/16	1917		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/8/16	1437		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.28 in. AK8 8/9/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C2			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL1			☑	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids				☐	☐	☑

	lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.					
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☐	☐	☑
				☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____ **Meter 1:** _____ **Meter 2:** _____

Report:

Quarter B Done

WO ID: MSGP-56954 ~~56924~~ AMB 8/9/16 Page 3 of 3

Signature (collecting sample): MPSL. Date and Time: 8/4/16 1917

Signature (conducting visual assessment): MPSL. Date and Time: 8/8/16 1437

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab

Work Order MSGP-57543

MSGP Monitoring Stations
Printed 8/4/2016 - 7:14 PM

Maintenance Details

Requested: 8/4/2016 7:06:01 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/29/2016
Project: SIO Visual Assessments 8-4-16 (P-MSGP-5054)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Reason: MSGP Quarterly Visual Assessment

Weather at inspection:
Finding Descprition:
Inspection Type:
Monitoring Period:
Precipitation Type:
Special Instructions: NMR053195

Contact:
Phone:

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/2/16	1:30 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/2/16	1:30 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/3/16	1631		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.31 in. AMO 8/16/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C1			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL 2				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☐	☑
					☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

_____

_____

_____

_____

_____

_____

_____

Signature / Name	Date	Signature / Name	Date

WO ID: MSGP-52643 Page 3 of 3

Signature (collecting sample): MSLP Date and Time: 8/2/16 1:30

Signature (conducting visual assessment): MSLP. Date and Time: 8/3/16 1631

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab

Work Order MSGP-57544

MSGP Monitoring Stations
Printed 8/4/2016 - 7:14 PM

Maintenance Details

Requested: 8/4/2016 7:06:02 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/26/2016
Project: SIO Visual Assessments 8-4-16 (P-MSGP-5054)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Weather at inspection:
Finding Descprition:
Inspection Type:
Monitoring Period:
Precipitation Type:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/2/16	1:30 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/2/16	1:30 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/3/16	16/16		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.3 in. approx		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	O1			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C2			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL1			
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SUSSOL2	☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

_____ _____ _____ _____

Signature / Name | Date | Signature / Name | Date

WO ID: MSGP-57544 Page 3 of 3

Signature (collecting sample): MSH Date and Time: 8/2/16 1:30

Signature (conducting visual assessment): MSH Date and Time: 8/3/16 1616

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab

Work Order MSGP-57545

MSGP Monitoring Stations
Printed 8/4/2016 - 7:14 PM

Maintenance Details

Requested: 8/4/2016 7:06:03 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/29/2016
Project: SIO Visual Assessments 8-4-16 (P-MSGP-5054)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Reason: MSGP Quarterly Visual Assessment

Weather at inspection:
Inspection Type:
Precipitation Type:
Special Instructions: NMR053195

Finding Descprition:
Monitoring Period:

Contact:
Phone:

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/2/16		1:30 approx	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/2/16		1:30 approx	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/3/16	1612		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.31 in. AKS 8/4/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL2				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.					☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)					☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)					☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)					☑

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name	Date	Signature / Name	Date

Signature (collecting sample): MPSHL Date and Time: 8/2/16 1:30

Signature (conducting visual assessment): MPSHL Date and Time: 8/3/16 1612

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab

Work Order MSGP-57546

MSGP Monitoring Stations
Printed 8/4/2016 - 7:14 PM

Maintenance Details

Requested: 8/4/2016 7:06:03 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/26/2016
Project: SIO Visual Assessments 8-4-16 (P-MSGP-5054)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Reason: MSGP Quarterly Visual Assessment

Weather at inspection:
Inspection Type:
Precipitation Type:
Special Instructions: NMR053195

Finding Descprition:
Monitoring Period:

Contact:
Phone:

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/2/16	1:30 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/2/16	1:30 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/3/16	1610		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.31 in. 8/16/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C2			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSDL1				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.					☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)					☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)					☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)					☑
						☐

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name	Date	Signature / Name	Date

WO ID: MSGP-5754 Page 3 of 3

Signature (collecting sample): MSH Date and Time: 8/2/16 1:30

Signature (conducting visual assessment): MSH. Date and Time: 8/3/16 1610

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title:_____

Signature:_____ Date:_____

Los Alamos National Lab

Work Order MSGP-57562

MSGP Monitoring Stations
Printed 8/4/2016 - 7:14 PM

Maintenance Details

Requested: 8/4/2016 7:11:13 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/29/2016
Project: SIO Visual Assessments 8-4-16 (P-MSGP-5054)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Weather at inspection:
Finding Descprition:
Inspection Type:
Monitoring Period:
Precipitation Type:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/3/16	18:30 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/3/16	18:30 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/4/16	1140		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.61 in. 8/3&8/4/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL2			
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name	Date	Signature / Name	Date

WO ID: MSGP-57562 Page 3 of 3

Signature (collecting sample): MSLP. Date and Time: 8/3/16 1630

Signature (conducting visual assessment): MSLP. Date and Time: 8/4/16 1140

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab

Work Order MSGP-57563

MSGP Monitoring Stations
Printed 8/4/2016 - 7:14 PM

Maintenance Details

Requested: 8/4/2016 7:11:14 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/26/2016
Project: SIO Visual Assessments 8-4-16 (P-MSGP-5054)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Weather at inspection:
Finding Descprition:
Inspection Type:
Monitoring Period:
Precipitation Type:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/3/16	1830 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/3/16	1830 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/4/16	1137		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.6 in. AMP 8/16/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C2			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL1	☐	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	MS SUSSOL2	☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name	Date	Signature / Name	Date

WO ID: MSGP-5756 3 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 8/3/16 1830

Signature (conducting visual assessment): MSL Date and Time: 8/4/16 1137

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab

Work Order MSGP-57564

MSGP Monitoring Stations
Printed 8/4/2016 - 7:14 PM

Maintenance Details

Requested: 8/4/2016 7:11:14 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/29/2016
Project: SIO Visual Assessments 8-4-16 (P-MSGP-5054)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Weather at inspection:
Finding Descprition:
Inspection Type:
Monitoring Period:
Precipitation Type:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/3/16	1830 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/3/16	1830 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/4/16	1131		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.6 in. Aug 8/3/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☐	☐	☑

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.					
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☐	☐	☑
				☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name	Date	Signature / Name	Date

WO ID: MSGP-57564 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 8/3/16 1830

Signature (conducting visual assessment): MSL. Date and Time: 8/4/16 1131

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab

Work Order MSGP-57565

MSGP Monitoring Stations
Printed 8/4/2016 - 7:14 PM

Maintenance Details

Requested: 8/4/2016 7:11:15 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/26/2016
Project: SIO Visual Assessments 8-4-16 (P-MSGP-5054)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Weather at inspection:
Finding Descprition:
Inspection Type:
Monitoring Period:
Precipitation Type:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/3/16	1830 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/3/16	1830 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/4/16	1129		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.61 in. MB&WellS		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C1			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL			
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

_____ _____ _____ _____

Signature / Name | Date | Signature / Name | Date

WO ID: MSGP-57565 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 8/3/16 1830

Signature (conducting visual assessment): MSL Date and Time: 8/4/16 1129

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab

Work Order MSGP-57989

MSGP Monitoring Stations
Printed 8/10/2016 - 1:23 PM

Maintenance Details

Requested: 8/10/2016 1:18:07 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/29/2016
Project: SIO Visual Assessments 8/8/16 (P-MSGP-5073)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/8/16	1130 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/8/16	1130 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/9/16	1532		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.37 in. Aug 8 into		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C1			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL 2				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.					☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)					☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)					☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)					☑

Labor

Labor	Work Date	Reg Hrs	OT Hrs	Other Hrs

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name	Date	Signature / Name	Date

Signature (collecting sample): MSH Date and Time: 8/8/16 1130

Signature (conducting visual assessment): MSH Date and Time: 8/9/16 1532

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab

Work Order MSGP-57990

MSGP Monitoring Stations
Printed 8/10/2016 - 1:23 PM

Maintenance Details

Requested: 8/10/2016 1:18:09 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/1/2016
Project: SIO Visual Assessments 8/8/16 (P-MSGP-5073)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/8/16	1130 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/8/16	1130 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/9/16	1529		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.37 in. March 16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	O1			☑	☐	☐
130	Is sample clear? If "Failed" document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C3			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL 2			
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SUSSOL 2	☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor

Labor	Work Date	Reg Hrs	OT Hrs	Other Hrs

Labor Report

Completed: _____ **Failure:** _____

Report:

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_____ _____ _____ _____

Signature / Name Date Signature / Name Date

WO ID: MSGP-57990 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 8/8/16 1130

Signature (conducting visual assessment): MSL Date and Time: 8/9/16 1529

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab

Work Order MSGP-57991

MSGP Monitoring Stations
Printed 8/10/2016 - 1:23 PM

Maintenance Details

Requested: 8/10/2016 1:18:09 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/29/2016
Project: SIO Visual Assessments 8/8/16 (P-MSGP-5073)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/8/16	1130 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/8/16	1130 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/9/16	1525		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.37 in. Accumulated		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☐	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL2			
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor

Labor	Work Date	Reg Hrs	OT Hrs	Other Hrs

Labor Report

Completed: _____ **Failure:** _____

Report:

_____

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Signature / Name	Date	Signature / Name	Date

WO ID: MSGP-57491 Page 3 of 3

Signature (collecting sample): [signature] Date and Time: 8/8/16 1130

Signature (conducting visual assessment): [signature] Date and Time: 8/9/16 1525

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab

Work Order MSGP-57992

MSGP Monitoring Stations
Printed 8/10/2016 - 1:23 PM

Maintenance Details

Requested: 8/10/2016 1 18:10 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/1/2016
Project: SIO Visual Assessments 8/8/16 (P-MSGP-5073)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/8/16	1130 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/8/16	1130 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/9/16	1523		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.37 in.		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	light brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C2			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL1				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.					☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)					☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)					☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)					☑
						☑

Labor

Labor	Work Date	Reg Hrs	OT Hrs	Other Hrs

Labor Report

Completed: _____ **Failure:** _____

Report:

_____

_____

_____

_____

Signature / Name	Date	Signature / Name	Date

WO ID: MSGP-57992 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 8/8/16 1130

Signature (conducting visual assessment): MSL Date and Time: 8/9/16 1523

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title:_____

Signature:_____ Date:_____

Los Alamos National Lab - ADESH

Work Order MSGP-58178

MSGP Monitoring Stations
Printed 9/7/2016 - 4:48 PM

Maintenance Details

Requested By: Banar, Alethea on 9/7/2016 4:31:00 PM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/9/2016
Project: ~~Visual Assessments~~ SIO Visuals 9/1/16 ~~9/6/16 (P-MSGP-5118)~~ (P-MSGP-5114) AKB 9/8/16
Reason: MSGP Quarterly Visual Assessment

Target: 9/30/2016
Priority/Type: / Inspection
Department: Utilities and Infrastructure

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact: Banar, Alethea
Phone: 699-5836

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/6/16	1704		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/6/16	1704		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/7/16	11:10		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.45 in. AKB 9/8/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	[illegible]	MS		☑	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	OL			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	[illegible]	MS		☑	☐	☑
140					☐	☐	☑

	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.					
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			☐	☐	☑
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)	Flecks	Rainbow on surface	☑	☐	☐
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☐	☐	☑
				☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	12/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

_____

_____

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_____

_____ _____ _____ _____

Signature / Name | Date | Signature / Name | Date

See attached email for follow up to observed sheen.
AKS 9/9/16

WO ID: MSGP-58178 Page 3 of 3

Signature (collecting sample): [signature] Date and Time: 9/6/16 1704

Signature (conducting visual assessment): [signature] Date and Time: 9/7/16 1110

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

From: Wheeler, Holly Lynn
To: Sandoval, Leonard Frank
Cc: Shendo, Marwin Patrick; Banar, Alethea K; Stone, Russell
Subject: sheen at outfall 024
Date: Wednesday, September 07, 2016 4:43:38 PM
Importance: High

Leonard,
EPC-CP found a sheen at outfall 024 at the TA-60 Heavy Equipment Yard from a storm event on 9/06/2016 at approximately 1704 hours. The sheen had a petroleum odor. Action must be taken immediately to prevent further discharge of pollutants from this outfall. In addition, I will enter a corrective action into the database tonight.

Los Alamos National Lab - ADESH

Work Order MSGP-58321

MSGP Monitoring Stations
Printed 8/17/2016 - 2:27 PM

Maintenance Details

Requested: 8/17/2016 2:20:59 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/9/2016
Project: SIO Visuals 8-16-16 (P-MSGP-5099)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/13/16	1309 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/13/16	1309 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/16/16	1552		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.3 in. AMG 8/24/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Grayish			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C2			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL2			
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor

Labor	Work Date	Reg Hrs	OT Hrs	Other Hrs

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name Date Signature / Name Date

Signature (collecting sample): [signature] Date and Time: 8/13/16 1309

Signature (conducting visual assessment): [signature] Date and Time: 8/16/16 1552

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58322

MSGP Monitoring Stations
Printed 8/17/2016 - 2:27 PM

Maintenance Details

Requested: 8/17/2016 2:20:59 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/9/2016
Project: SIO Visuals 8-16-16 (P-MSGP-5099)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/13/16	1303 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/13/16	1303 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/16/16	1556		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.3 in. AMD 8/24/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C3			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL1			
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SUSSOL2	☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor

Labor	Work Date	Reg Hrs	OT Hrs	Other Hrs

Labor Report

Completed: _____ **Failure:** _____

Report:

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_____ _____ _____ _____

Signature / Name Date Signature / Name Date

WO ID: MSGP-58322 Page 3 of 3

Signature (collecting sample): [signature] Date and Time: 8/13/16 1303

Signature (conducting visual assessment): [signature] Date and Time: 8/16/16 1556

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58323

MSGP Monitoring Stations
Printed 8/17/2016 - 2:27 PM

Maintenance Details

Requested: 8/17/2016 2:21:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/9/2016
Project: SIO Visuals 8-16-16 (P-MSGP-5099)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/13/16	1304 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/13/16	1304 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/16/16	1551		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.3 in. accidental		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Grayish			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C2			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL2				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☑
					☐	☐

Labor

Labor	Work Date	Reg Hrs	OT Hrs	Other Hrs

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name	Date	Signature / Name	Date

WO ID: MSGP-58323 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 8/13/16 1304

Signature (conducting visual assessment): MSL Date and Time: 8/16/16 1551

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58324

MSGP Monitoring Stations
Printed 8/17/2016 - 2:27 PM

Maintenance Details

Requested: 8/17/2016 2:21:01 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/9/2016
Project: SIO Visuals 8-16-16 (P-MSGP-5099)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/13/16	1306 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/13/16	1306 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/16/16	1549		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.3 in. since 8/13/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed" document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C2			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				Non-Applicable	☐	☑
150					☐	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL1				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☑
					☐	☐

Labor

Labor	Work Date	Reg Hrs	OT Hrs	Other Hrs

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name | Date | Signature / Name | Date

WO ID: MSGP-58324 Page 3 of 3

Signature (collecting sample): MSH. Date and Time: 8/13/16 1306

Signature (conducting visual assessment): MSH. Date and Time: 8/16/16 1549

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58411

MSGP Monitoring Stations
Printed 8/23/2016 - 3:43 PM

Maintenance Details

Requested: 8/23/2016 3:43:56 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/9/2016
Project: SIO Visuals 8/23/16 (P-MSGP-5107)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/21/16	1924 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/21/16	1924 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/22/16	10:08		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.21 in. Aug 21 '16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C2			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		Fine				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☐	☑
					☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name | Date | Signature / Name | Date

Signature (collecting sample): [signature] Date and Time: 8/21/16 1924

Signature (conducting visual assessment): [signature] Date and Time: 8/22/16 10:08

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58412

MSGP Monitoring Stations
Printed 8/23/2016 - 3:43 PM

Maintenance Details

Requested: 8/23/2016 3:43:57 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/9/2016
Project: SIO Visuals 8/23/16 (P-MSGP-5107)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/21/16	1918 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/21/16	1918 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/22/16	10:06		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.21 in. 8/23/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Course				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☐	☐	☑
				☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name | Date | Signature / Name | Date

WO ID: MSGP-58912 Page 3 of 3

Signature (collecting sample): _____ Date and Time: 8/21/16 1918

Signature (conducting visual assessment): _____ Date and Time: 8-22-16 ~~10:08~~ 10:06

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58413

MSGP Monitoring Stations
Printed 8/23/2016 - 3:43 PM

Maintenance Details

Requested: 8/23/2016 3:43:58 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/9/2016
Project: SIO Visuals 8/23/16 (P-MSGP-5107)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.		MP3		☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/21/16	1919 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/21/16	1919 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/22/16	9:58		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.21 in. per 8/22/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Course & Fine					
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☐	☑
					☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name Date Signature / Name Date

Signature (collecting sample): _____ Date and Time: 8/21/16 1919

Signature (conducting visual assessment): _____ Date and Time: 8/22/16 9:58

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58414

MSGP Monitoring Stations
Printed 8/23/2016 - 3:43 PM

Maintenance Details

Requested: 8/23/2016 3:43:59 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/9/2016
Project: SIO Visuals 8/23/16 (P-MSGP-5107)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/21/16	1921 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/21/16	1921 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/22/16	0:57		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.21 in. per 8/2/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	light brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Musty			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C3			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☐	☐	☑
				☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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_____ _____ _____ _____

Signature / Name | Date | Signature / Name | Date

Signature (collecting sample): [signature] Date and Time: 8/21/16 1921

Signature (conducting visual assessment): [signature] Date and Time: 8/22/16 9:57

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58500

MSGP Monitoring Stations
Printed 8/31/2016 - 3:46 PM

Maintenance Details

Requested: 8/31/2016 2:35:59 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/22/2016
Project: SIO Visuals 8/31/16 (P-MSGP-5113)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/27/16	1154		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/27/16	1154		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/29/16	1631		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.85 in. AD 9/6/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Grayish			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C1			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SCTSOL2				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☐	☐	☑
				☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name Date Signature / Name Date

WO ID: MSGP-58500 Page 3 of 3

Signature (collecting sample): MPSLP. Date and Time: 8/27/16 1154

Signature (conducting visual assessment): MPSLP. Date and Time: 8/29/16 1631

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58501

MSGP Monitoring Stations
Printed 8/31/2016 - 3:46 PM

Maintenance Details

Requested: 8/31/2016 2:36:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/22/2016
Project: SIO Visuals 8/31/16 (P-MSGP-5113)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/27/16	1148		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/27/16	1148		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/29/16	1641		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.85 in. AND 9/6/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C3			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL1				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SUSSOL2		☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☐	☐	☑
				☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name Date Signature / Name Date

WO ID: MSGP-58501 Page 3 of 3

Signature (collecting sample): MSLP Date and Time: 8/27/16 1148

Signature (conducting visual assessment): MSLP Date and Time: 8/29/16 1641

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58502

MSGP Monitoring Stations
Printed 8/31/2016 - 3:46 PM

Maintenance Details

Requested: 8/31/2016 2:36:01 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/22/2016
Project: SIO Visuals 8/31/16 (P-MSGP-5113)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/24/16	1304		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/24/16 8/25/16	1304 1500		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/25/16	1500		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.35 in. AMB 9/6/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL2				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.					☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)					☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)					☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)					☑

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name _____ Date _____ Signature / Name _____ Date _____

WO ID: MSGP-58502 Page 3 of 3

Signature (collecting sample): [signature] Date and Time: 8/24/16 1304

Signature (conducting visual assessment): [signature] Date and Time: 8/25/16 1500

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58503

MSGP Monitoring Stations
Printed 8/31/2016 - 3:46 PM

Maintenance Details

Requested: 8/31/2016 2:36:01 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/22/2016
Project: SIO Visuals 8/31/16 (P-MSGP-5113)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/27/16	1151		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/27/16	1151		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/29/16	1625		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.85 in. AMB 9/6/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	CL			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SCTSOL1				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.					☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)					☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)					☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)					☑

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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_____ _____ _____ _____

Signature / Name Date Signature / Name Date

WO ID: MSGP-58503 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 8/27/16 1151

Signature (conducting visual assessment): MSL Date and Time: 8/29/16 1625

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58512

MSGP Monitoring Stations
Printed 8/31/2016 - 3:42 PM

Maintenance Details

Requested: 8/31/2016 2:57:48 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021 2)
Last PM: 8/22/2016
Project: SIO Visuals 9/1/16 (P-MSGP-5114)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/24/16	1309		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/24/16	1309		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/25/16	1506		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.35 in. ~~0.85 in.~~ AMS 9/6/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C1			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SCT302				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.					☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)					☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)					☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)					☑

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name Date Signature / Name Date

WO ID: MSGP-58512 Page 3 of 3

Signature (collecting sample): MPSLP Date and Time: 8/24/16 1305

Signature (conducting visual assessment): MPSLP Date and Time: 8/25/16 1506

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Maintenance Details

Requested: 8/31/2016 2:57:49 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/22/2016
Project: SIO Visuals 9/1/16 (P-MSGP-5114)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/24/16	1303		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/24/16	1303		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/25/16	1503		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.35 in. ~~0.85 in.~~ NRD 9/6/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☐	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☐	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C3			☐	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL2			
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SUSSOL2	☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name | Date | Signature / Name | Date

WO ID: MSGP-58513 Page 3 of 3

Signature (collecting sample): [signature] Date and Time: 8/24/16 1303

Signature (conducting visual assessment): [signature] Date and Time: 8/25/16 1503

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58514

MSGP Monitoring Stations
Printed 8/31/2016 - 3:42 PM

Maintenance Details

Requested: 8/31/2016 2:57:50 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/22/2016
Project: SIO Visuals 9/1/16 (P-MSGP-5114)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/24/16	13:06		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/24/16	13:06		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/25/16	1458		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.35in. ~~0.85 in.~~ MS 9/6/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	light Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C2			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150					☐	☐	☑

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.					
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SUSSOL2		☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☐	☐	☑
				☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name Date Signature / Name Date

Signature (collecting sample): [signature] Date and Time: 8/24/16 13:06

Signature (conducting visual assessment): [signature] Date and Time: 8/25/16 14:58

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58548

MSGP Monitoring Stations
Printed 9/9/2016 - 10:14 AM

Maintenance Details

Requested: 9/9/2016 10:12:23 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/25/2016
Project: SIO Visual Assessments 9-8-16 (P-MSGP-5120)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/6/16	1724		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/6/16	1724		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/7/16	1116		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.45in		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Greyish			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C1			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.					☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)					☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)					☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)					☑
						☑

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name | Date | Signature / Name | Date

WO ID: MSGP-58548 Page 3 of 3

Signature (collecting sample): MSLP Date and Time: 9/7/16 1116

Signature (conducting visual assessment): MSLP Date and Time: 9/7/16 1116

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58549

MSGP Monitoring Stations
Printed 9/9/2016 - 10:14 AM

Maintenance Details

Requested: 9/9/2016 10:12:24 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/25/2016
Project: SIO Visual Assessments 9-8-16 (P-MSGP-5120)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/6/16	1703		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/6/16	1703		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/7/16	1113		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.45in		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C3			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL1	☐	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SUSSOL2	☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name | Date | Signature / Name | Date

WO ID: MSGP-58549 Page 3 of 3

Signature (collecting sample): MPSHP. Date and Time: 9/7/16 1113

Signature (conducting visual assessment): MPSHP. Date and Time: 9/7/16 1113

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58550

MSGP Monitoring Stations
Printed 9/9/2016 - 10:14 AM

Maintenance Details

Requested: 9/9/2016 10:12:25 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/25/2016
Project: SIO Visual Assessments 9-8-16 (P-MSGP-5120)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/6/16	1721		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/6/16	1721		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/7/16	1108		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.45in		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Greyish			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C1			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☐	☐	☑
				☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name Date Signature / Name Date

WO ID: MSGP-58550 Page 3 of 3

Signature (collecting sample): MPSHP Date and Time: 9/7/16 1108

Signature (conducting visual assessment): MPSHP Date and Time: 9/7/16 1108

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58617

MSGP Monitoring Stations
Printed 9/12/2016 - 11:53 AM

Maintenance Details

Requested: 9/12/2016 11:52:19 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/25/2016
Project: SIO Visual Assessments 9/12/16 (P-MSGP-5123)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Reason: MSGP Quarterly Visual Assessment

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Contact:
Phone:

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/12/16	2009		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/12/16	2009		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/13/16	1040		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.06 in.		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Greyish			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C1			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SqTSoL2			
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SuSSoL2	☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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_____

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_____ _____ _____ _____

Signature / Name Date Signature / Name Date

WO ID: MSGP-58617 Page 3 of 3

Signature (collecting sample): MSwl. Date and Time: 9/13/16 1040

Signature (conducting visual assessment): MSwl. Date and Time: 9/13/16 1040

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58619

MSGP Monitoring Stations
Printed 9/12/2016 - 11:53 AM

Maintenance Details

Requested: 9/12/2016 11:52:21 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/25/2016
Project: SIO Visual Assessments 9/12/16 (P-MSGP-5123)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☒
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☒
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/12/16	2019		☐	☐	☒
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/12/16	2019		☐	☐	☒
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/13/16	1032		☐	☐	☒
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.06in. MBG 9/14/16		☐	☐	☒
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☒
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☒
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☒
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☒
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☒
150					☒	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL2				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.					☒
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)					☒
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)					☒
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)					☒

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

_____

_____

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_____ _____ _____ _____

Signature / Name | Date | Signature / Name | Date

WO ID: MSGP-58619 Page 3 of 3

Signature (collecting sample): [signature] Date and Time: 9/13/16 1032

Signature (conducting visual assessment): [signature] Date and Time: 9/13/16 1032

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58825

MSGP Monitoring Stations
Printed 9/28/2016 - 10:27 AM

Maintenance Details

Requested By: Banar, Alethea on 9/28/2016 9:59:00 AM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 9/13/2016
Project: SIO Visual Assessments 9/12/16 (P-MSGP-5123)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assesment
Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Attach

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/23/16	1639 MS		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/23/16	1639		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/26/16	1507		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.04 in. AM 9/30/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑

140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg	☑	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL2	☑	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SUSSOL2	☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	10/12/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name _____ Date _____ Signature / Name _____ Date _____

WO ID: MSGP.58825 Page 3 of 3

Signature (collecting sample): [signature] Date and Time: 9/26/16 1507

Signature (conducting visual assessment): [signature] Date and Time: 9/26/16 1507

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58826

MSGP Monitoring Stations
Printed 9/28/2016 - 10:27 AM

Maintenance Details

Requested By: Banar, Alethea on 9/28/2016 10:02:00 AM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 9/26/2016
Project: SIO Visual Assessments 9/12/16 (P-MSGP-5123)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assesment

Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Attach

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/23/16	1649		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/23/16	1649		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/26/16	1503		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.04in. NRS 9/26/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen				☐	☐	☑

	from the lookup table, provide description in comments of this line.				
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL1	☑	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	10/12/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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_____ _____ _____ _____

Signature / Name Date Signature / Name Date

Signature (collecting sample): MPSL. Date and Time: 9/26/16 1503

Signature (conducting visual assessment): MPSL. Date and Time: 9/26/16 1503

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: Date:

Los Alamos
NATIONAL LABORATORY
EST. 1943

memorandum

Environmental Protection & Compliance Division
Environmental Programs (EPC-CP)

To/MS: Jillian Burgin, DESHS-UIS, B274
Thru/MS: Terrill Lemke, EPC-CP, (E-File)
From/MS: Holly Wheeler, EPC-CP, (E-File)
Phone/Fax: 667-1312
Symbol: EPC-DO: 17-059
Date: JAN 2 0 2017

Subject: **National Pollutant Discharge Elimination System (NPDES) Permit No. NMR053195, Multi-Sector General Permit (MSGP) Quarterly Visual Assessment (QVA) Forms for October and November of 2016 for the TA-60-1 Heavy Equipment Yard**

Please find attached completed MSGP QVA Forms documenting visual assessments performed during the fourth quarter of monitoring at the TA-60-1 Heavy Equipment Yard. Pursuant to Parts 3.2.2 and 5.5 of the 2015 MSGP, this memorandum along with all of the attached QVA forms shall be incorporated into your MSGP Storm Water Pollution Prevention Plan (SWPPP).

Part 3.2.1 of the 2015 MSGP requires the visual assessment of storm water discharge samples collected from each outfall once each quarter for the entire permit term. Part 3.2.3 allows facilities that are located in an area with a semi-arid climate and/or in an area where freezing conditions exist for an extended period to distribute the quarterly visual assessments during seasons when precipitation runoff occurs. Accordingly, Los Alamos National Security LLC (LANS) has designated the following MSGP monitoring quarters.

Quarter 1:	April – May	Quarter 2:	June – July
Quarter 3:	August – September	Quarter 4:	October - November

The attached QVA forms document the following information as required by Part 3.2.2 of the 2015 MSGP.

- Sample location;
- Sample collection date and time, and visual assessment date and time for each sample;
- Personnel collecting the sample and performing the visual assessment, and their signatures;
- Nature of the discharge (i.e., runoff or snowmelt);
- Results of observations of the stormwater discharge;
- Probable sources of any observed stormwater contamination (if applicable);
- If applicable, why it was not possible to take a sample within the first 30 minutes of the storm event.

The signed certification statement contained in this memorandum satisfies the duly authorized signatory requirement for the QVAs completed by EPC-CP representatives contained in Enclosure 1.

Enclosure: 1. Quarterly Visual Assessment Forms Requiring a Certification Statement Signature, Fourth Quarter, 2016 Monitoring Year

Facility Name	**Sampling Station**	**Work Order #**
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-58618
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-58620
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-58856
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-58857
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-58981
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-58982
TA-60-1 Heavy Equipment Yard	MSGP02201	MSGP-59197
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-59198
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-59199
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-59237
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-59238
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-59265
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-59360
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-59361
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-59362

Copy: Russell Stone, DESHS-UIS, (E-File)
Adesh-records@lanl.gov, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locateteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)
Holly Wheeler, (EPC-CP), (E-File)

ENCLOSURE 1

Quarterly Visual Assessment Forms Requiring a Certification Statement Signature

Fourth Quarter, 2016 Monitoring Year

EPC-DO: 17-059

Date: JAN 2 0 2017

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Anthony R. Grieggs, EPC-CP Group Leader
(Print name and title)
Los Alamos National Laboratory

Manager Signature

Date

Part 3.2.3 of the 2015 MSGP allows the facility to take a substitute sample during the next qualifying storm event when adverse weather conditions prevent the collection of samples during a specific quarter. Adverse weather conditions are those that are dangerous or create inaccessibility for personnel, or situations that otherwise make sampling impractical, such as drought or extended frozen conditions. Documentation of the rationale for no visual assessment for the quarter must be included in the facility-specific SWPPP.

Please contact Holly Wheeler at 667-1312 (hbenson@lanl.gov) if you have questions regarding the QVA documentation. Thank you for your assistance in meeting the requirements of the Laboratory's NPDES 2015 MSGP Permit.

TWL/HLW:am

Los Alamos National Lab - ADESH

Work Order MSGP-58618

MSGP Monitoring Stations
Printed 1/12/2017 - 3:11 PM

Maintenance Details

Requested: 9/12/2016 11:52:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 9/13/2016
Project: SIO Visual Assess. Oct-Nov 2016 (P-MSGP-5138)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Precipitation Type: PR1
Odor: NA
Clarity: C3
Settled Solids: SETSOL2
Suspended Solids: SUSSOL2
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/5/16 at 21:33	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/5/16 at 21:33	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/7/16 at 15:26	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		.7 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		brown	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		vegetation	MS	☒	☐	☐

150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/7/2016 3:26:00 PM **Failure:**

Report:

Signature / Name	Date	Signature / Name	Date
MPSLO	11/15/2016		

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

"I confirm the information as recorded is true, accurate and complete."

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-58620

MSGP Monitoring Stations
Printed 1/12/2017 - 3:12 PM

Maintenance Details

Requested: 9/12/2016 11:52:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 9/22/2016
Project: SIO Visual Assess. Oct-Nov 2016 (P-MSGP-5138)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Precipitation Type: PR1
Odor: O1
Clarity: C1
Settled Solids: NA
Suspended Solids: NA
Special Instructions: NMR053195

Tasks

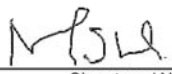
#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/5/16 at 21:06	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/5/16 at 21:06	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/7/16 at 15:17	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		.7 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		light brown	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.			MS	☐	☐	☑
150				MS	☐	☐	☑

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.						
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/7/2016 3:17:00 PM **Failure:**

Report:

Signature / Name	Date	Signature / Name	Date
	11/15/2016		

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

"I confirm the information as recorded is true, accurate and complete."

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-58856

MSGP Monitoring Stations
Printed 1/12/2017 - 3:13 PM

Maintenance Details

Requested By: Banar, Alethea on 10/3/2016 5:27:00 PM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 9/26/2016
Project: SIO Visual Assessments 10-3-16 (P-MSGP-5133)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment (EPC Sig)
Precipitation Type: PR1
Odor: O1
Clarity: NA
Settled Solids: SETSOL2
Suspended Solids: NA
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		10/3/16 04:15	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		10/3/16 04:15	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		10/3/16 15:13	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		0.13 in.	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.			MS	☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑

140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.			MS	☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 10/3/2016 3:13:00 PM **Failure:**

Report:

Signature / Name	Date	Signature / Name	Date
MSL	10/4/2016		

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

"I confirm the information as recorded is true, accurate and complete."

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-58857

MSGP Monitoring Stations
Printed 1/12/2017 - 3:14 PM (Duplicate Copy)

Maintenance Details

Requested By: Banar, Alethea on 10/3/2016 5:28:00 PM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 9/26/2016
Project: SIO Visual Assessments 10-3-16 (P-MSGP-5133)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment (EPC Sig)
Precipitation Type: PR1
Odor: O1
Clarity: C1
Settled Solids: NA
Suspended Solids: SUSSOL2
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		10/3/16 04:15	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		10/3/16 04:15	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		10/3/16 15:16	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		0.13 in.	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		Greyish	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐

140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		Vegetation	MS	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 10/3/2016 3:16:00 PM **Failure:**

Report:

MSL

Signature / Name

10/4/2016

Date

Signature / Name

Date

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

"I confirm the information as recorded is true, accurate and complete."

CERTIFICATION STATEMENT

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(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-58981

MSGP Monitoring Stations
Printed 1/12/2017 - 3:15 PM

Maintenance Details

Requested By: Banar, Alethea on 10/17/2016 4:55:00 PM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 10/11/2016
Project: SIO Visual Assess. Oct-Nov 2016 (P-MSGP-5138)

Target: 10/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment

Precipitation Type: PR1
Odor: O1
Clarity: C1
Settled Solids: SETSOL1
Suspended Solids: NA
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		10/08/16 16:05	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		10/08/16 16:05	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		10/11/16 14:55	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		0.14 in.	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		Greyish	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen			MS	☒	☐	☐

	from the lookup table, provide description in comments of this line.						
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.			MS	☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 10/11/2016 2:55:00 PM **Failure:**

Report:

MSL

Signature / Name

10/18/2016

Date

Signature / Name

Date

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

"I confirm the information as recorded is true, accurate and complete."

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-58982

MSGP Monitoring Stations
Printed 1/12/2017 - 3:17 PM

Maintenance Details

Requested By: Banar, Alethea on 10/17/2016 4:56:00 PM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 10/11/2016
Project: SIO Visual Assess. Oct-Nov 2016 (P-MSGP-5138)

Target: 10/31/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment

Precipitation Type: PR1
Odor: O1
Clarity: C1
Settled Solids: SETSOL2
Suspended Solids: NA
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		10/08/16 16:19	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		10/08/16 16:19	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		10/11/16 14:25	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		0.14 in.	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		Greyish	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen			MS	☒	☐	☐

	from the lookup table, provide description in comments of this line.						
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.			MS	☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 10/11/2016 2:25:00 PM **Failure:**

Report:

Signature / Name	Date	Signature / Name	Date
MSL	10/18/2016		

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

"I confirm the information as recorded is true, accurate and complete."

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-59197

MSGP Monitoring Stations
Printed 1/12/2017 - 3:18 PM

Maintenance Details

Requested By: Banar, Alethea on 11/7/2016 9:25:00 AM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 11/4/2016
Project: ISCO Visual Assess. Oct-Nov 2016 (P-MSGP-5135)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
MSGP02201

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment
Precipitation Type: PR1
Odor: O1
Clarity: C2
Settled Solids: SETSOL1
Suspended Solids: NA
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/4/16 12:26 pm	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/4/16 12:26	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/4/16 14:22	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		0.71 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		Brown	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐

140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.			MS	☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		on the surface	MS	☒	☐	☐
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/4/2016 2:22:00 PM **Failure:** **Meter(s):** 2

Report:

Signature / Name	Date	Signature / Name	Date
MSLA	11/8/2016		

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

"I confirm the information as recorded is true, accurate and complete."

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

From:	Banar, Alethea K
To:	Wheeler, Holly Lynn
Subject:	RE: Spill Report TA-60-1 Heavy Equipment Yard - 09/20/16
Date:	Wednesday, November 09, 2016 10:14:32 AM

Thanks Holly. I'll add a note in MainConn.

- Alethea

From: Wheeler, Holly Lynn
Sent: Tuesday, November 8, 2016 6:17:59 PM
To: Banar, Alethea K
Cc: Shendo, Marwin Patrick; Burgin, Jillian Elizabeth
Subject: RE: Spill Report TA-60-1 Heavy Equipment Yard - 09/20/16

Alethea,
I entered the sheen and foam at outfall 024 as Corrective action #996 in the oracle database. The sheen and form at outfall 021 as well as the form at outfall 022 (which is in close proximity to outfall 021) were entered into the oracle database as Corrective Action # 997.
Thanks,
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From: Banar, Alethea K
Sent: Tuesday, November 08, 2016 10:24 AM
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Subject: RE: Spill Report TA-60-1 Heavy Equipment Yard - 09/20/16

Hi Holly,

Foam on the surface is also noted on the visual assessment form along with sheen.

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From: Burgin, Jillian Elizabeth
Sent: Tuesday, November 08, 2016 10:03 AM
To: Wheeler, Holly Lynn <hbenson@lanl.gov>
Cc: Sandoval, Leonard Frank <lesandov@lanl.gov>; Banar, Alethea K <abanar@lanl.gov>
Subject: RE: Spill Report TA-60-1 Heavy Equipment Yard - 09/20/16

That spill would not have impacted either of those outfalls. It was a small leak that occurred in the upper east lot (on asphalt) and was immediately cleaned with floor dry.
Also, those outfalls are on opposite sides of the facility. 024 is on the NW section of the building and 021 is on the SE side of the building.
Let me know when you get more info. When I get a chance I will go take a look.

Thanks,

Jillian Burgin
Deployed Environmental Professional
LOG-MSS/UIS
Los Alamos National Laboratory
TA-03-0038 Room 120 MS: P908
Phone: 505-665-1893
Fax: 505-665-4276
Email: jburgin@lanl.gov

From: Wheeler, Holly Lynn
Sent: Monday, November 07, 2016 5:13 PM
To: Burgin, Jillian Elizabeth; Sandoval, Leonard Frank
Cc: Banar, Alethea K
Subject: FW: Spill Report TA-60-1 Heavy Equipment Yard - 09/20/16

All,
Marwin found a sheen at outfalls 021 and 024 from the rain over the weekend. I think the attached spill report is the last spill documentation I have. Do not know without looking at the SWPPP if the location could have potentially affected the two outfalls listed.
More to come once I get the information from Marwin.
Thanks,
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From: Iacona, Brian M
Sent: Wednesday, September 28, 2016 5:07 PM
To: Wheeler, Holly Lynn
Subject: FW: Spill Report TA-60-1 Heavy Equipment Yard - 09/20/16

fyi

From: Burgin, Jillian Elizabeth
Sent: Wednesday, September 21, 2016 3:51 PM
To: Iacona, Brian M
Cc: Sandoval, Leonard Frank; Meadows, Jacob William
Subject: RE: Spill Report TA-60-1 Heavy Equipment Yard - 09/20/16

Now it's attached… ☺

From: Burgin, Jillian Elizabeth
Sent: Wednesday, September 21, 2016 3:50 PM
To: Iacona, Brian M
Cc: Sandoval, Leonard Frank; Meadows, Jacob William
Subject: Spill Report TA-60-1 Heavy Equipment Yard - 09/20/16

Attached is the spill report for the Heavy Equipment Yard that occurred yesterday.

Thanks,

Jillian Burgin
Deployed Environmental Profesional
Logistics-Maintenance Site Services
Los Alamos National Laboratory
TA-03-0038 Room 120 MS: P908
Phone: 505-665-1893
Fax: 505-665-4276
Email: jburgin@lanl.gov

Los Alamos National Lab - ADESH

Work Order MSGP-59198

MSGP Monitoring Stations
Printed 1/12/2017 - 3:19 PM

Maintenance Details

Requested By: Banar, Alethea on 11/7/2016 9:26:00 AM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 11/7/2016
Project: ISCO Visual Assess. Oct-Nov 2016 (P-MSGP-5135)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment
Precipitation Type: PR1
Odor: O6
Clarity: C2
Settled Solids: SETSOL2
Suspended Solids: SUSSOL2
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/4/16 12:04 pm	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/4/16 12:04 pm	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/4/16 14:18	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		0.71 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		Brown	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen			MS	☒	☐	☐

	from the lookup table, provide description in comments of this line.						
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		Vegetation	MS	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		on the surface	MS	☒	☐	☐
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		flecks on the surface	MS	☒	☐	☐
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/4/2016 2:18:00 PM **Failure:**

Report:

Signature / Name	Date	Signature / Name	Date
MSLD.	11/7/2016		

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

"I confirm the information as recorded is true, accurate and complete."

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

From:	Banar, Alethea K
To:	Wheeler, Holly Lynn
Subject:	RE: Spill Report TA-60-1 Heavy Equipment Yard - 09/20/16
Date:	Wednesday, November 09, 2016 10:14:32 AM

Thanks Holly. I'll add a note in MainConn.

- Alethea

From: Wheeler, Holly Lynn
Sent: Tuesday, November 8, 2016 6:17:59 PM
To: Banar, Alethea K
Cc: Shendo, Marwin Patrick; Burgin, Jillian Elizabeth
Subject: RE: Spill Report TA-60-1 Heavy Equipment Yard - 09/20/16

Alethea,
I entered the sheen and foam at outfall 024 as Corrective action #996 in the oracle database. The sheen and form at outfall 021 as well as the form at outfall 022 (which is in close proximity to outfall 021) were entered into the oracle database as Corrective Action # 997.
Thanks,
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From: Banar, Alethea K
Sent: Tuesday, November 08, 2016 10:24 AM
To: Wheeler, Holly Lynn
Subject: RE: Spill Report TA-60-1 Heavy Equipment Yard - 09/20/16

Hi Holly,

Foam on the surface is also noted on the visual assessment form along with sheen.

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Sent: Tuesday, November 08, 2016 10:03 AM
To: Wheeler, Holly Lynn <hbenson@lanl.gov>
Cc: Sandoval, Leonard Frank <lesandov@lanl.gov>; Banar, Alethea K <abanar@lanl.gov>
Subject: RE: Spill Report TA-60-1 Heavy Equipment Yard - 09/20/16

That spill would not have impacted either of those outfalls. It was a small leak that occurred in the upper east lot (on asphalt) and was immediately cleaned with floor dry.
Also, those outfalls are on opposite sides of the facility. 024 is on the NW section of the building and 021 is on the SE side of the building.
Let me know when you get more info. When I get a chance I will go take a look.

Thanks,

Jillian Burgin
Deployed Environmental Professional
LOG-MSS/UIS
Los Alamos National Laboratory
TA-03-0038 Room 120 MS: P908
Phone: 505-665-1893
Fax: 505-665-4276
Email: jburgin@lanl.gov

From: Wheeler, Holly Lynn
Sent: Monday, November 07, 2016 5:13 PM
To: Burgin, Jillian Elizabeth; Sandoval, Leonard Frank
Cc: Banar, Alethea K
Subject: FW: Spill Report TA-60-1 Heavy Equipment Yard - 09/20/16

All,
Marwin found a sheen at outfalls 021 and 024 from the rain over the weekend. I think the attached spill report is the last spill documentation I have. Do not know without looking at the SWPPP if the location could have potentially affected the two outfalls listed.
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From: Iacona, Brian M
Sent: Wednesday, September 28, 2016 5:07 PM
To: Wheeler, Holly Lynn
Subject: FW: Spill Report TA-60-1 Heavy Equipment Yard - 09/20/16

fyi

From: Burgin, Jillian Elizabeth
Sent: Wednesday, September 21, 2016 3:51 PM
To: Iacona, Brian M
Cc: Sandoval, Leonard Frank; Meadows, Jacob William
Subject: RE: Spill Report TA-60-1 Heavy Equipment Yard - 09/20/16

Now it's attached… ☺

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To: Iacona, Brian M
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Subject: Spill Report TA-60-1 Heavy Equipment Yard - 09/20/16

Attached is the spill report for the Heavy Equipment Yard that occurred yesterday.

Thanks,

Jillian Burgin
Deployed Environmental Profesional
Logistics-Maintenance Site Services
Los Alamos National Laboratory
TA-03-0038 Room 120 MS: P908
Phone: 505-665-1893
Fax: 505-665-4276
Email: jburgin@lanl.gov

Los Alamos National Lab - ADESH

Work Order MSGP-59199

MSGP Monitoring Stations
Printed 1/12/2017 - 3:20 PM

Maintenance Details

Requested By: Banar, Alethea on 11/7/2016 9:26:00 AM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 11/7/2016
Project: ISCO Visual Assess. Oct-Nov 2016 (P-MSGP-5135)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment
Precipitation Type: PR1
Odor: O6
Clarity: C2
Settled Solids: SETSOL1
Suspended Solids: NA
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/4/2016 at 12:08 pm	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/4/16 at 12:08 pm	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/4/16 at 14:26	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		.71 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		Brown	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen			MS	☒	☐	☐

	from the lookup table, provide description in comments of this line.						
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.			MS	☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
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170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		on the surface	MS	☒	☐	☐
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		Flecks on the surface	MS	☒	☐	☐
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/4/2016 2:26:00 PM **Failure:**

Report:

MSLP

Signature / Name

11/7/2016

Date

Signature / Name

Date

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

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Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

From:	Banar, Alethea K
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Subject:	RE: Spill Report TA-60-1 Heavy Equipment Yard - 09/20/16
Date:	Wednesday, November 09, 2016 10:14:32 AM

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Jillian Burgin
Deployed Environmental Professional
LOG-MSS/UIS
Los Alamos National Laboratory
TA-03-0038 Room 120 MS: P908
Phone: 505-665-1893
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Logistics-Maintenance Site Services
Los Alamos National Laboratory
TA-03-0038 Room 120 MS: P908
Phone: 505-665-1893
Fax: 505-665-4276
Email: jburgin@lanl.gov

Los Alamos National Lab - ADESH

Work Order MSGP-59237

MSGP Monitoring Stations
Printed 1/12/2017 - 3:21 PM

Maintenance Details

Requested By: Banar, Alethea on 11/15/2016 2:30:00 PM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 11/7/2016
Project: SIO Visual Assess. Oct-Nov 2016 (P-MSGP-5138)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment

Precipitation Type: PR1
Odor: O1
Clarity: C3
Settled Solids: SETSOL2
Suspended Solids: NA
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/5/16 at 21:33	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/5/16 at 21:33	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/7/16 at 16:02	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		.7 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		greyish	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen			MS	☒	☐	☐

	from the lookup table, provide description in comments of this line.						
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170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
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190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/7/2016 4:02:00 PM **Failure:**

Report:

MSH	11/15/2016		
Signature / Name	Date	Signature / Name	Date

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

"I confirm the information as recorded is true, accurate and complete."

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-59238

MSGP Monitoring Stations
Printed 1/12/2017 - 3:22 PM

Maintenance Details

Requested By: Banar, Alethea on 11/15/2016 2:31:00 PM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 11/7/2016
Project: SIO Visual Assess. Oct-Nov 2016 (P-MSGP-5138)

Target: 11/29/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment

Precipitation Type: PR1
Odor: O1
Clarity: NA
Settled Solids: SETSOL2
Suspended Solids: NA
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/5/16 at 21:19	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/5/16 at 21:19	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/7/16 at 15:20	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		.7 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.			MS	☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from			MS	☐	☐	☑

	the lookup table, provide description in comments of this line.						
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.			MS	☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☑
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/7/2016 3:20:00 PM **Failure:**

Report:

Signature / Name	Date	Signature / Name	Date
	11/15/2016		

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

"I confirm the information as recorded is true, accurate and complete."

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-59265

MSGP Monitoring Stations
Printed 1/12/2017 - 3:23 PM

Maintenance Details

Requested By: Banar, Alethea on 11/17/2016 10:02:00 AM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 11/7/2016
Project: SIO Visual Assess. Oct-Nov 2016 (P-MSGP-5138)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Precipitation Type: PR1
Odor: O1
Clarity: C3
Settled Solids: SETSOL1
Suspended Solids: SUSSOL2
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/21/16 at 16:25	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/21/16 at 16:25	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/22/16 at 10:30 am	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		.44 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		brown	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen			MS	☒	☐	☐

	from the lookup table, provide description in comments of this line.						
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		vegetation	MS	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/22/2016 10:30:00 AM **Failure:**

Report:

MSU
Signature / Name

11/28/2016
Date

Signature / Name

Date

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

"I confirm the information as recorded is true, accurate and complete."

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-59360

MSGP Monitoring Stations
Printed 1/12/2017 - 3:24 PM

Maintenance Details

Requested: 11/22/2016 4:44:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 11/22/2016
Project: SIO Visual Assess. Oct-Nov 2016 (P-MSGP-5138)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Contact:
Phone:

Precipitation Type: PR1
Odor: O1
Clarity: C2
Settled Solids: SETSOL1
Suspended Solids: NA
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/21/16 at 16:38	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/21/16 at 16:38	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/22/16 at 10:24 am	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		.44 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		grayish	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.			MS	☐	☐	☑
150				MS	☒	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.						
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/22/2016 10:24:00 AM **Failure:**

Report:

Signature / Name	Date	Signature / Name	Date
	11/29/2016		

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

"I confirm the information as recorded is true, accurate and complete."

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-59361

MSGP Monitoring Stations
Printed 1/12/2017 - 3:24 PM

Maintenance Details

Requested: 11/22/2016 4:44:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 11/22/2016
Project: SIO Visual Assess. Oct-Nov 2016 (P-MSGP-5138)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Contact:
Phone:

Precipitation Type: PR1
Odor: O1
Clarity: C2
Settled Solids: SETSOL2
Suspended Solids: SUSSOL2
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/21/16 at 16:49	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/21/16 at 16:49	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/22/16 at 10:34 am	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		.44 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		brown	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		vegetation	MS	☒	☐	☐

150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/22/2016 10:34:00 AM **Failure:**

Report:

Signature / Name	Date	Signature / Name	Date
MSLP	11/29/2016		

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

"I confirm the information as recorded is true, accurate and complete."

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-59362

MSGP Monitoring Stations
Printed 1/12/2017 - 3:25 PM

Maintenance Details

Requested: 11/22/2016 4:44:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 11/22/2016
Project: SIO Visual Assess. Oct-Nov 2016 (P-MSGP-5138)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Contact:
Phone:

Precipitation Type: PR1
Odor: NA
Clarity: NA
Settled Solids: NA
Suspended Solids: SUSSOL2
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/21/16 at 16:51	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/21/16 at 16:51	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/22/16 at 10:37 am	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		.44 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.			MS	☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		vegetation	MS	☒	☐	☐

150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/22/2016 10:37:00 AM **Failure:**

Report:

MSH

Signature / Name

11/29/2016

Date

Signature / Name

Date

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

"I confirm the information as recorded is true, accurate and complete."

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg., FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos
NATIONAL LABORATORY
EST. 1943

memorandum

Environmental Protection & Compliance Division

To: Jillian Burgin, DESHS-UIS, B274
Thru: Terrill Lemke, EPC-CP, (E-File)
From: Holly Wheeler, EPC-CP, (E-File)
Phone: 505-667-1312
Symbol: EPC-DO: 17-489
Date: NOV 2 7 2017

Subject: National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR053195, Multi-Sector General Permit (MSGP) Quarterly Visual Assessment (QVA) Forms for April and May of 2017 for the TA-60-1 Heavy Equipment Yard

Please find attached completed MSGP QVA Forms documenting visual assessments performed during the first quarter of monitoring at the TA-60-1 Heavy Equipment Yard. Per Parts 3.2.2 and 5.5 of the 2015 MSGP, the signed certification statement and associated QVA forms shall be incorporated into your MSGP Stormwater Pollution Prevention Plan (SWPPP).

Part 3.2.1 of the 2015 MSGP requires the visual assessment of stormwater discharge samples collected from each outfall once each quarter for the entire permit term. Part 3.2.3 allows facilities that are located in an area with a semi-arid climate and/or in an area where freezing conditions exist for an extended period to distribute the quarterly visual assessments during seasons when precipitation runoff occurs. Accordingly, Los Alamos National Security, LLC (LANS) has designated the following MSGP monitoring quarters.

Quarter 1:	April – May	Quarter 2:	June – July
Quarter 3:	August – September	Quarter 4:	October - November

The attached QVA forms document the following information required by Part 3.2.2 of the 2015 MSGP and were completed by Environmental Compliance Programs (EPC-CP) personnel.

- Sample location;
- Sample collection date and time, and visual assessment date and time for each sample;
- Personnel collecting the sample and performing the visual assessment, and their signatures;
- Nature of the discharge (i.e., runoff or snowmelt);
- Results of observations of the stormwater discharge;
- Probable sources of any observed stormwater contamination (if applicable);
- If applicable, why it was not possible to take a sample within the first 30 minutes of the storm event.

The EPC-CP Group Leader has signed the certification statement to meet the duly authorized signatory requirements for the QVA completed by EPC-CP representatives contained in Enclosure 1.

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.
>
> Taunia S. Van Valkenburg, EPC-CP Group Leader
> Los Alamos National Laboratory
>
> for TV — 11/22/17
> Manager Signature — Date

Part 3.2.3 of the 2015 MSGP allows the facility to take a substitute sample during the next qualifying storm event when adverse weather conditions prevent the collection of samples during a specific quarter. Adverse weather conditions are those that are dangerous or create inaccessibility for personnel, or situations that otherwise make sampling impractical, such as drought or extended frozen conditions. Documentation of the rationale for no visual assessment for the quarter must be included in the facility-specific SWPPP.

Please contact Holly Wheeler at 667-1312 (hbenson@lanl.gov) if you have questions regarding the QVA documentation. Thank you for your assistance in meeting the requirements of the Laboratory's NPDES 2015 MSGP Permit.

Facility Name	Sampling Station	Work Order #
TA-60-1 Heavy Equipment Yard	MSGP02201	MSGP-59591
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-59607
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-59608
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-59609
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-59610
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-59817
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-59822
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-59823
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-59919
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-59963
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-59964
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-59965
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-59983
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-59987
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-59988
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-59989
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-59990
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-60297
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-60324
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-60325
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-60327

TWL/HLW: am

Enclosure(s):

1. Quarterly Visual Assessment Forms, First Quarter, 2017 Monitoring Year

Copy: Russell Stone, DESHS-UIS, (E-File)
Adesh-records@lanl.gov, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)

ENCLOSURE 1

Quarterly Visual Assessment Forms
First Quarter, 2017 Monitoring Year

EPC-DO: 17-489

Date: NOV 2 7 2017

Los Alamos National Lab - ADESH

Work Order MSGP-59591

MSGP Monitoring Stations
Printed 7/7/2017 - 9:04 AM

Maintenance Details

Requested: 3/9/2017 11:58:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 6/5/2017
Project: Visual Assessments 4-1-17 (P-MSGP-5156)

Target: 5/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
MSGP02201

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.		☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/1/17 at 4:42	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/1/17 at 4:42	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/3/17 at 9:21	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	0.18"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Text Fields

Monitoring Period: MP1 **Precipitation Type:** PR1 **Odor:** O1 **Clarity:** C2 **Settled Solids:** SETSOL1 **Suspended Solids:** NA

Labor Report

Completed: 4/3/2017 9:21:00 AM

Report: Marwin Shendo

Signature / Name	Date	Signature / Name	Date
MSLO.	4/7/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 3/9/2017 12:06:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 3/30/2017
Project: SIO Visual Assesments 4-1-17 (P-MSGP-5166)

Target: 5/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table. **Comments: April/May**		☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/04/17 at 13:40 hours	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/04/17 at 13:40 hours	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/04/17 at 16:36 hours	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Snow melt 0.2"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.		☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line. **Comments: Cloudy**		☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line. **Comments: Fine**		☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line. **Comments: Fine**		☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks,		☐	☐	☑

	globs) in the comments of this line. (Range: 0 - 0)				
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Text Fields

Monitoring Period: MP1 **Precipitation Type:** PR2 **Clarity:** C2 **Settled Solids:** SETSOL1 **Suspended Solids:** SUSSOL1

Labor Report

Completed: 4/4/2017 4:36:00 PM

Report: Holly Wheeler

Signature / Name	Date	Signature / Name	Date
Holly Wheeler	4/12/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-59608

MSGP Monitoring Stations
Printed 7/7/2017 - 9:15 AM

Maintenance Details

Requested: 3/9/2017 12:06:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 3/30/2017
Project: SIO Visual Assesments 4-1-17 (P-MSGP-5166)

Target: 5/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	Aprill/May	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/04/17 at 13:54 hours.	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/04/17 at 13:54 hours.	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/06/2017 at 12:21 hours.	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Snow melt 0.2"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.		☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Musty	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Text Fields

Odor: O1 **Settled** SETSOL1
Solids:

Labor Report

Completed: 4/6/2017 12:21:00 PM

Report: Holly Wheeler

Signature / Name	Date	Signature / Name	Date
[signature]	4/17/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-59609

MSGP Monitoring Stations
Printed 7/7/2017 - 9:23 AM

Maintenance Details

Requested: 3/9/2017 12:06:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 3/30/2017
Project: SIO Visual Assesments 4-1-17 (P-MSGP-5166)

Target: 5/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	April/May	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/04/17 at 13:40 hours	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/04/17 at 13:40 hours	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/04/17 at 17:05 hours	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Snow melt 0.2"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	light brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Petroleum smell.	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Course	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☒	☐	☐

Comments: Rainbow colored oil sheen seen in sample. Strong petroleum odor and oil sticking to the jar. Deployed Environmental Professional was notified the same

day the sheen was observed. Corrective action was entered into the EPC-CP database on 4/04/2017. E-mail notification went out the next day to the FOD.

190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☑

Text Fields

Monitoring Period: MP1 **Precipitation Type:** PR2 **Odor:** O6 **Clarity:** C2 **Settled Solids:** SETSOL2 **Suspended Solids:** SUSSOL1

Labor Report

Completed: 4/4/2017 5:05:00 PM

Report: Holly Wheeler

Signature / Name	Date	Signature / Name	Date
Holly Wheeler	4/14/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 3/9/2017 12:06:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 3/30/2017
Project: SIO Visual Assesments 4-1-17 (P-MSGP-5166)

Target: 5/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Contact:
Phone:

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table. Comments: April/May		☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/04/17 at 13:36 hours	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/04/17 at 13:36 hours	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/04/17 at 16:57 hours	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Snow melt 0.2"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.		☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Text Fields

Monitoring Period: MP1 **Precipitation Type:** PR2

Labor Report

Completed: 4/4/2017 4:57:00 PM

Report: Holly Wheeler

Signature / Name	Date	Signature / Name	Date
	4/12/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-59817

MSGP Monitoring Stations
Printed 7/7/2017 - 9:08 AM

Maintenance Details

Requested By: Wheeler-Benson, Holly on 4/17/2017 5:14:00 PM
Taken By: Wheeler-Benson, Holly
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.022)
Last PM: 4/26/2017
Project: SIO Visual Assesments 4-1-17 (P-MSGP-5166)

Target: 5/1/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact: Wheeler-Benson, Holly
Phone: 667-1312

Reason: MSGP Quarterly Visual Assessment (EPC-Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.		☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/04/17 at 14:00 hours	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/04/17 at 14:00 hours.	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/06/17 at 12:30 hours.	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	0.2"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.		☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑

190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)	☐	☐	☑

Text Fields

Weather at inspection:	W1	**Inspection Type:**	IT2				
Monitoring Period:	MP1	**Precipitation Type:**	PR2	**Odor:** NA	**Clarity:** NA	**Settled Solids:** SETSOL1	**Suspended Solids:** NA

Labor Report

Completed: 4/6/2017 12:30:00 PM

Report: Holly Wheeler

Signature / Name	Date	Signature / Name	Date
	4/17/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-59822

MSGP Monitoring Stations
Printed 7/7/2017 - 9:22 AM

Maintenance Details

Requested By: Wheeler-Benson, Holly on 4/17/2017 7:40:00 PM
Taken By: Wheeler-Benson, Holly
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 4/26/2017
Project: SIO Visual Assesments 4-1-17 (P-MSGP-5166)

Target: 5/1/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact: Wheeler-Benson, Holly
Phone: 667-1312

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.		☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/04/17 at 14:00 hours	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/04/17 at 14:00 hours	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/06/17 at 16:10 hours	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	0.2"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.		☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑

190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☑

Text Fields

Weather at inspection: W1 **Inspection Type:** IT2

Monitoring Period: MP1 **Precipitation Type:** PR2 **Odor:** NA **Clarity:** NA **Settled Solids:** NA **Suspended Solids:** NA

Labor Report

Completed: 4/6/2017 4:10:00 PM

Report: Holly Wheeler

Signature / Name	Date	Signature / Name	Date
Holly Wheeler	4/17/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested By: Wheeler-Benson, Holly on 4/18/2017 9:42:00 AM
Taken By: Wheeler-Benson, Holly
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.022)
Last PM: 4/26/2017
Project: SIO Visual Assesments 4-1-17 (P-MSGP-5166)

Target: 5/1/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Contact: Wheeler-Benson, Holly
Phone: 667-1312

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	April/May	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/04/17 at 14:00 hours.	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/04/17 at 14:00 hours.	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/06/17 at 16:15 hours.	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Snow melt 0.2"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.		☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑

190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☑

Text Fields

Weather at inspection: W1 **Inspection Type:** IT2

Monitoring Period: MP1 **Precipitation Type:** PR2 **Odor:** NA **Clarity:** NA **Settled Solids:** NA **Suspended Solids:** NA

Labor Report

Completed: 4/6/2017 4:15:00 PM

Report: Holly Wheeler

Signature / Name	Date	Signature / Name	Date
[signature]	4/19/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-59919

MSGP Monitoring Stations
Printed 7/7/2017 - 9:10 AM

Maintenance Details

Requested By: Wheeler-Benson, Holly on 5/2/2017 5:21:00 PM
Taken By: Wheeler-Benson, Holly
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.022)
Last PM: 5/1/2017
Project: SIO Visual Assesments 4-1-17 (P-MSGP-5166)

Target: 5/16/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact: Wheeler-Benson, Holly
Phone: 667-1312

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	April/May	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/25/17 at 15:14 hours.	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/25/17 at 15:14 hours.	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/26/17 at 15:07 hours.	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain 0.09"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Light tan	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑

190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☐	☐	☑

Labor Report

Completed: 4/26/2017 3:07:00 PM

Report: Holly Wheeler

Signature / Name	Date	Signature / Name	Date
[signature]	5/2/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 5/8/2017 1:25:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 5/1/2017
Project: SIO Visual Assesments 4-1-17 (P-MSGP-5166)

Target: 5/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	April/May	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/29/17 at apx 13:10 hours.	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/29/17 at apx. 13:10 hours.	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/01/17 at 10:35 hours.	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Snow melt 0.18"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Dark brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Opaque	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Completed: 5/1/2017 10:35:00 AM

Report: Holly Wheeler

Signature / Name	Date	Signature / Name	Date
	5/8/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 5/8/2017 1:25:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 5/1/2017
Project: SIO Visual Assesments 4-1-17 (P-MSGP-5166)

Target: 5/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	April/May	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/29/17 at 16:05 hours.	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/29/17 at 16:05 hours.	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/01/17 at 10:30 hours.	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Snow melt 0.18"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.		☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Completed: 5/1/2017 10:30:00 AM

Report: Holly Wheeler

Signature / Name	Date	Signature / Name	Date
Holly Wheeler	5/8/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-59965

MSGP Monitoring Stations
Printed 7/7/2017 - 9:25 AM

Maintenance Details

Requested: 5/8/2017 1:25:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 5/30/2017
Project: SIO Visual Assesments 4-1-17 (P-MSGP-5166)

Target: 5/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	April/May	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/29/17 at apx. 13:10 hours.	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	04/29/17 at apx. 13:10 hours.	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/01/17 at 10:10 hours.	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Snow melt 0.18"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.		☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Course	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Completed: 5/1/2017 10:10:00 AM

Report: Holly Wheeler

Signature / Name	Date	Signature / Name	Date
	5/8/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested By: Wheeler-Benson, Holly on 6/9/2017 2:14:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.022)
Last PM: 5/1/2017
Project: SIO Visual Assesments 4-1-17 (P-MSGP-5166)

Target: 5/31/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact: Wheeler-Benson, Holly
Phone: 667-1312

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	April/May	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/30/17 at apx. 13:30 hours	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/30/17 at apx. 13:30 hours.	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/30/17 15:52 hours.	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain 0.03"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Light brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Course	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line.		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line.		☐	☐	☑

Labor Report

Completed: 5/30/2017 3:52:00 PM

Report: 6/5/2017 - 118432: Holly Wheeler

Signature / Name	Date	Signature / Name	Date
[signature]	6/5/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-59987

MSGP Monitoring Stations
Printed 7/7/2017 - 9:12 AM

Maintenance Details

Requested: 5/11/2017 9:10:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 5/1/2017
Project: SIO Visual Assesments 4-1-17 (P-MSGP-5166)

Target: 5/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	May-June	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/09/17, 16:40	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/09/17, 1640	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/10/17, 1005	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain, 0.42"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.		☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line. **Comments: clay and sands were observed [fine and course]**		☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line. **Comments: Fine sediments were observed**		☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Completed: 5/10/2017 10:05:00 AM

Report: Antonio Trujillo

A Trujillo	5/15/2017		
Signature / Name	Date	Signature / Name	Date

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 5/11/2017 9:10:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 5/1/2017
Project: SIO Visual Assesments 4-1-17 (P-MSGP-5166)

Target: 5/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	May-June	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/9/17, 16:40	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/09/2017, 16:40	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/10/17, 09:20	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain, 0.42"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Dark brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Completed: 5/10/2017 9:20:00 AM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
	5/15/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 5/11/2017 9:10:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 5/30/2017
Project: SIO Visual Assesments 4-1-17 (P-MSGP-5166)

Target: 5/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	April-May	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/9/17, 16:04	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/9/17, 16:04	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/10/17, 9:06	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	rain w/ hail 0.42"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.		☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Course	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Completed: 5/10/2017 9:06:00 AM

Report: Antonio Trujillo

A Trujillo	5/15/2017		
Signature / Name	Date	Signature / Name	Date

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 5/11/2017 9:10:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 5/1/2017
Project: SIO Visual Assesments 4-1-17 (P-MSGP-5166)

Target: 5/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	Apr/May	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/09/2017, 16:40	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/09/2017, 16:40	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/10/2017, 10:10	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain, 0.42"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Light Brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Poor Clarity [cloudy]	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Vegitation	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Completed: 5/10/2017 10:10:00 AM

Report: Antonio Trujillo

A Trujillo	5/15/2017		
Signature / Name	Date	Signature / Name	Date

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-60297

MSGP Monitoring Stations
Printed 7/7/2017 - 9:12 AM

Maintenance Details

Requested: 5/30/2017 11:29:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 5/31/2017
Project: SIO Visual Assesments 4-1-17 (P-MSGP-5166)

Target: 5/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.					
Sample information					
30	Document the monitoring Period by using the Monitoring Period lookup table.	April-May	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/30/17, 13:30	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/30/17, 13:30	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/31/17, 1343	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain, .03"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
Parameters					
110	Is sample colorless? If "Failed", describe.	Light Brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Slightly Cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Completed: 5/31/2017 1:43:00 PM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
A Trujillo	6/5/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested By: Wheeler-Benson, Holly on 5/31/2017 10:22:00 AM
Taken By: Wheeler-Benson, Holly
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.022)
Last PM: 6/2/2017
Project: SIO Visual Assesments 4-1-17 (P-MSGP-5166)

Target: 5/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact: Wheeler-Benson, Holly
Phone: 667-1312

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	April/May	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/19/17 at apx. 10:55 hours.	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/19/17 at apx. 10:55 hours	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/19/17 at 14:50 hours	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Snow melt 0.17"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.		☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Course	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
	Is sample free of other obvious indicators of pollution? If "Failed", describe in the				

190 comments of this line. (Range: 0 - 0)

Labor Report

Completed: 5/19/2017 2:50:00 AM

Report: 5/31/2017 - 118432: Holly Wheeler

Signature / Name	Date	Signature / Name	Date
	5/31/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-60325

MSGP Monitoring Stations
Printed 7/7/2017 - 9:18 AM

Maintenance Details

Requested By: Wheeler-Benson, Holly on 5/31/2017 10:36:00 AM
Taken By: Wheeler-Benson, Holly
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.022)
Last PM: 6/7/2017
Project: SIO Visual Assesments 4-1-17 (P-MSGP-5166)

Target: 5/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Contact: Wheeler-Benson, Holly
Phone: 667-1312

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.					
Sample information					
30	Document the monitoring Period by using the Monitoring Period lookup table.	April/May	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/19/17 at apx. 10:55 hours	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/19/17 at apx. 10:55 hours	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/19/17 at 14:59 hours	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Snow melt 0.17"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
Parameters					
110	Is sample colorless? If "Failed", describe.		☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Course	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
	Is sample free of other obvious indicators of pollution? If "Failed", describe in the				

190 comments of this line. (Range: 0 - 0)

Labor Report

Completed: 5/19/2017 2:59:00 PM

Report: 5/31/2017 - 118432: Holly Wheeler

Signature / Name	Date	Signature / Name	Date
Holly Wheeler	5/31/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-60327

MSGP Monitoring Stations
Printed 7/7/2017 - 9:13 AM

Maintenance Details

Requested By: Wheeler-Benson, Holly on 5/31/2017 10:58:00 AM
Taken By: Wheeler-Benson, Holly
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.022)
Last PM: 5/31/2017
Project: SIO Visual Assesments 4-1-17 (P-MSGP-5166)

Target: 5/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact: Wheeler-Benson, Holly
Phone: 667-1312

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	April/May	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/19/17 at apx. 10:55 hours	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/19/17 at apx. 10:55 hours	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/19/17 15:09 hours	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Snow melt 0.17"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Light tan	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Course	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑

190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☐	☐	☑

Labor Report

Completed: 5/19/2017 3:09:00 PM

Report: 5/31/2017 - 118432: Holly Wheeler

Signature / Name	Date	Signature / Name	Date
	5/31/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos
NATIONAL LABORATORY
EST. 1943

memorandum

Environmental Protection & Compliance Division

To: Jillian Burgin, DESHS-UIS, B274
Thru: Terrill Lemke, EPC-CP, (E-File)
From: Holly Wheeler, EPC-CP, (E-File)
Phone: 505-667-1312
Symbol: EPC-DO: 17-490
Date: NOV 2 7 2017

Subject: National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR053195, Multi-Sector General Permit (MSGP) Quarterly Visual Assessment (QVA) Forms for June and July of 2017 for the TA-60-1 Heavy Equipment Yard

Please find attached completed MSGP QVA Forms documenting visual assessments performed during the second quarter of monitoring at the TA-60-1 Heavy Equipment Yard. Per Parts 3.2.2 and 5.5 of the 2015 MSGP, the signed certification statement and associated QVA forms shall be incorporated into your MSGP Stormwater Pollution Prevention Plan (SWPPP).

Part 3.2.1 of the 2015 MSGP requires the visual assessment of stormwater discharge samples collected from each outfall once each quarter for the entire permit term. Part 3.2.3 allows facilities that are located in an area with a semi-arid climate and/or in an area where freezing conditions exist for an extended period to distribute the quarterly visual assessments during seasons when precipitation runoff occurs. Accordingly, Los Alamos National Security, LLC (LANS) has designated the following MSGP monitoring quarters.

Quarter 1:	April – May	Quarter 2:	June – July
Quarter 3:	August – September	Quarter 4:	October - November

The attached QVA forms document the following information required by Part 3.2.2 of the 2015 MSGP and were completed by Environmental Compliance Programs (EPC-CP) personnel.

- Sample location;
- Sample collection date and time, and visual assessment date and time for each sample;
- Personnel collecting the sample and performing the visual assessment, and their signatures;
- Nature of the discharge (i.e., runoff or snowmelt);
- Results of observations of the stormwater discharge;
- Probable sources of any observed stormwater contamination (if applicable);
- If applicable, why it was not possible to take a sample within the first 30 minutes of the storm event.

The EPC-CP Group Leader has signed the certification statement to meet the duly authorized signatory requirements for the QVA completed by EPC-CP representatives contained in Enclosure 1.

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.
>
> Taunia S. Van Valkenburg, EPC-CP Group Leader
> Los Alamos National Laboratory
>
> Manager Signature — Date: 11/22/17

Part 3.2.3 of the 2015 MSGP allows the facility to take a substitute sample during the next qualifying storm event when adverse weather conditions prevent the collection of samples during a specific quarter. Adverse weather conditions are those that are dangerous or create inaccessibility for personnel, or situations that otherwise make sampling impractical, such as drought or extended frozen conditions. Documentation of the rationale for no visual assessment for the quarter must be included in the facility-specific SWPPP.

Please contact Holly Wheeler at 667-1312 (hbenson@lanl.gov) if you have questions regarding the QVA documentation. Thank you for your assistance in meeting the requirements of the Laboratory's NPDES 2015 MSGP Permit.

Facility Name	Sampling Station	Work Order #
TA-60-1 Heavy Equipment Yard	MSGP02201	MSGP-59529
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-60298
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-60299
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-60300
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-60336
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-60410
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-60418
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-60419
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-60553
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-60554
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-60596
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-60617
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-60618
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-60623
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-60639
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-60640
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-60823
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-60825
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-60828
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-60829
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-60830
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-60831
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-60935
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-61014

TWL/HLW: am

Enclosure(s):

1. Quarterly Visual Assessment Forms, Second Quarter, 2017 Monitoring Year

Copy: Russell Stone, DESHS-UIS, (E-File)
Adesh-records@lanl.gov, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)

ENCLOSURE 1

Quarterly Visual Assessment Forms
Second Quarter, 2017 Monitoring Year

EPC-DO: 17-490

Date: NOV 27 2017

Los Alamos National Lab - ADESH

Work Order MSGP-59529

MSGP Monitoring Stations
Printed 9/6/2017 - 11:24 AM (Duplicate Copy)

Maintenance Details

Requested: 5/31/2017 1:33:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 3/31/2017
Project: Visual Assessments 6-1-17 (P-MSGP-5173)

Target: 7/31/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
MSGP02201

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	Jun-July	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/1/17, 15:25	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/1/17, 15:25	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/5/17, 09:13	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain, 0.18"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Light Brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Opaque	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Completed: 6/5/2017 9:13:00 PM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
A Trujillo	6/7/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 5/30/2017 11:29:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 6/2/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Contact:
Phone:

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	June - July	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/6/17, 11:30	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/6/17, 11:30	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/7/17, 08:17	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	rain, 0.21"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Poor clarity	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Completed: 6/7/2017 8:17:00 PM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
	6/8/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 5/30/2017 11:29:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 6/2/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	June/July	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	06/01/17 at apx 15:25 hours.	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	06/01/17 at apx. 15:25 hours.	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	06/02/17 at 11:40 hours.	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain 0.18"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.		☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Labor Report

Completed: 6/2/2017 11:40:00 AM

Report: 6/7/2017 - 118432: Holly Wheeler

Signature / Name	Date	Signature / Name	Date
Holly Wheeler	6/7/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-60300

MSGP Monitoring Stations
Printed 9/6/2017 - 11:55 AM

Maintenance Details

Requested: 5/30/2017 11:29:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 6/2/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	June-July	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/6/17, 11:30	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/6/17, 11:30	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/7/17, 8:52	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	rain, 0.21"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Dark Brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Opaque	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Fine, Vegitation	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Completed: 6/7/2017 8:52:00 PM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
	6/8/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 6/6/2017 1:43:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 6/2/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 6/9/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	June-July	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	06-01-17 at pax. 15:25 hours	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	06-01-17 at pax. 15:25 hours.	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	06-02-17 11:57 hours	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain 0.18"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Dark tan	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine and course.	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Labor Report

Completed: 6/2/2017 11:57:00 AM

Report: 6/7/2017 - 118432: Holly Wheeler

Signature / Name	Date	Signature / Name	Date
[signature]	6/7/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-60410

MSGP Monitoring Stations
Printed 9/6/2017 - 11:53 AM

Maintenance Details

Requested By: Banar, Alethea on 6/9/2017 8:57:00 AM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 6/7/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	Jun-July	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/6/17, 11:30	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/6/17, 11:30	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/7/17, 08:47	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	rain, 0.21"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☐
	Parameters				
110	Is sample colorless? If "Failed", describe.	Brown in color	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	very cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine, gravels, asphalt and vegitation	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine, vegitation	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑

190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)	

Labor Report

Completed: 6/7/2017 8:47:00 AM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
A Trujillo	6/9/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-60418

MSGP Monitoring Stations
Printed 9/6/2017 - 11:59 AM (Duplicate Copy)

Maintenance Details

Requested By: Banar, Alethea on 6/9/2017 10:14:00 AM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.022)
Last PM: 6/7/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	June July	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/26/17, 12:50	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/26/17, 12:50	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/26/17, 1445	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain, 0.5	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Light Brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Slightly Cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments		☐	☐	☑

of this line. (Range: 0 - 0)

Labor Report

Completed: 6/26/2017 2:45:00 PM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
	7/5/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested By: Banar, Alethea on 6/9/2017 11:12:00 AM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.022)
Last PM: 6/7/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	Jun-July	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/26/17, 12:50	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/26/17, 12:50	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/26/17, 14:47	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain, 0.5"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Light brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Slightly Cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments		☐	☐	☑

_____ of this line. (Range: 0 - 0)

Labor Report

Completed: 6/26/2017 2:47:00 PM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
	7/3/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date: _____

Maintenance Details

Requested: 6/15/2017 4:14:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 6/21/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	Jun-Jul	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/20/17, 15:15	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/20/17, 15:15	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/21/17, 8:56	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line. **Comments: Precipitation data taken from the TA-6 Tower**	Rain, 0.01"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Light Brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	slightly cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Raw and vegitation	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Labor Report

Completed: 6/21/2017 8:56:00 AM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
A Trujillo	6/28/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 6/15/2017 4:14:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 6/21/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	June-July	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/12/17, 14:40	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/12/17, 14:40	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/13/17, 13:25	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	rain, 0.15"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	slightly brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	slightly cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Labor Report

Completed: 7/13/2017 1:25:00 PM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
A Trujillo	7/17/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 6/26/2017 3:48:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 6/21/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	Jun-July	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/25/17, 15:45	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/25/17, 15:45	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/26/17, 11:03	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain, 0.44"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Light Brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	FIne	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Labor Report

Completed: 6/26/2017 11:03:00 AM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
	7/3/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 6/26/2017 3:49:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 6/26/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Contact:
Phone:

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	June-July	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/7/17, 18:15	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/7/17, 18:15	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/10/17, 10:20	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain, .01"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	slightly cloudy	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	slightly brown	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	fine, raw	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	course	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Labor Report

Completed: 7/10/2017 10:20:00 AM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
A Trujillo	7/17/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 6/26/2017 3:49:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 6/21/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	June-July	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/7/17, 18:15	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/7/17, 18:15	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/10/17, 10:05	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain, 0.01"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	slightly cloudy	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	clear	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	raw, sticks	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine, course	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Labor Report

Completed: 7/10/2017 10:05:00 AM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
A Trujillo	7/17/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-60623

MSGP Monitoring Stations
Printed 9/6/2017 - 11:52 AM

Maintenance Details

Requested: 6/26/2017 3:49:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 6/21/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	Jun-July	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/12/17, 14:40	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/12/17, 14:40	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/13/17, 13:53	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain, 0.15"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	slightly brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	slightly cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	course	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Labor Report

Completed: 7/13/2017 1:53:00 PM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
	7/17/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 6/26/2017 3:49:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 7/10/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.					
Sample information					
30	Document the monitoring Period by using the Monitoring Period lookup table.	june-july	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/12/17, 14:40	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/12/17, 14:40	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/13/17, 13:55	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain, 0.15"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
Parameters					
110	Is sample colorless? If "Failed", describe.	light brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	raw, fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Labor Report

Completed: 7/13/2017 1:55:00 PM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
	7/18/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 6/26/2017 3:49:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 7/10/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	June-July	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/12/17, 14:40	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/12/17, 14:40	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/13/17, 13:48	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	rain, 0.15"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	light Brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Labor Report

Completed: 7/13/2017 1:48:00 PM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
A Trujillo	7/19/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 7/24/2017 2:34:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 7/19/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Contact:
Phone:

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	Jun-july	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/26/17, 10:50	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/26/17, 10:50	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/27/17, 09:17	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain, 0.99"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	course	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Completed: 7/27/2017 9:17:00 AM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
	7/31/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 7/24/2017 2:36:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 7/19/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	June-July	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/24/17, 21:55	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/24/17, 21:55	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/26/17, 10:49	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	rain, 0.06"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.		☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	course	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Completed: 7/26/2017 10:49:00 AM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
	8/2/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 7/20/2017 2:50:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 7/27/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Contact:
Phone:

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	jun-july	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/18/17, 17:55	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/18/17, 17:55	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/19/17, 11:50	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	rain, 0.29"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Completed: 7/19/2017 11:50:00 AM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
A. Trujillo	7/21/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 7/20/2017 2:50:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 8/21/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Contact:
Phone:

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	jun-jul	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/18/17, 17:55	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/18/17, 17:55	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/19/17, 11:34	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain, 0.29"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	brown	☒	☐	☐
120	Is sample odorless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Completed: 7/19/2017 11:34:00 AM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
	7/21/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

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(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 7/20/2017 2:50:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 7/26/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Contact:
Phone:

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	Jun-Jul	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/18/17, 17:55	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/18/17, 17:55	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/19/17, 11:21	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain, 0.29"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Brown	☒	☐	☐
120	Is sample odorless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	course	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☐

Labor Report

Completed: 7/19/2017 11:21:00 AM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
	7/21/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 7/20/2017 2:50:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 7/19/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	Jun-July	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/26/17, 10:50	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/26/17, 10:50	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/27/17, 8:29	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain, 0.99"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Brown	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	course	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Completed: 7/27/2017 8:29:00 AM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
	8/1/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 7/31/2017 1:40:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 2)
Last PM: 7/26/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	June-July	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/24/17, 21:55	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/24/17, 21:55	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/26/17, 11:12	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain, 0.06"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Brown	☒	☐	☐
120	Is sample odorless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Raw, leaves, sticks	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Labor Report

Completed: 7/26/2017 11:12:00 AM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
	8/2/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested By: Banar, Alethea on 8/7/2017 9:07:00 AM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (zEPC-CP-Form-1021.022)
Last PM: 7/26/2017
Project: SIO Visual Assessments 6/1/17 (P-MSGP-5188)

Target: 7/31/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period by using the Monitoring Period lookup table.	Jun-July	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/29/17, 18:40	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/29/17, 18:40	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/1/17, 8:05	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	rain, 0.47"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Brown	☒	☐	☐
120	Is sample odorless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	course	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑

Labor Report

Completed: 8/1/2017 8:05:00 AM

Report: Antonio Trujillo

Signature / Name	Date	Signature / Name	Date
	8/9/2017		

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos
NATIONAL LABORATORY
EST. 1943

memorandum

Environmental Protection & Compliance Division

To: Jillian Burgin, DESHS-UIS, B274
Thru: Terrill Lemke, EPC-CP, (E-File) TL
From: Holly Wheeler, EPC-CP, (E-File) HW
Phone: 505-667-1312
Symbol: EPC-DO: 17-491
Date: NOV 2 7 2017

Subject: National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR053195, Multi-Sector General Permit (MSGP) Quarterly Visual Assessment (QVA) Forms for August and September of 2017 for the TA-60-1 Heavy Equipment Yard

Please find attached completed MSGP QVA Forms documenting visual assessments performed during the third quarter of monitoring at the TA-60-1 Heavy Equipment Yard. Per Parts 3.2.2 and 5.5 of the 2015 MSGP, the signed certification statement and associated QVA forms shall be incorporated into your MSGP Stormwater Pollution Prevention Plan (SWPPP).

Part 3.2.1 of the 2015 MSGP requires the visual assessment of stormwater discharge samples collected from each outfall once each quarter for the entire permit term. Part 3.2.3 allows facilities that are located in an area with a semi-arid climate and/or in an area where freezing conditions exist for an extended period to distribute the quarterly visual assessments during seasons when precipitation runoff occurs. Accordingly, Los Alamos National Security, LLC (LANS) has designated the following MSGP monitoring quarters.

Quarter 1:	April – May	Quarter 2:	June – July
Quarter 3:	August – September	Quarter 4:	October - November

The attached QVA forms document the following information required by Part 3.2.2 of the 2015 MSGP and were completed by Environmental Compliance Programs (EPC-CP) personnel.

- Sample location;
- Sample collection date and time, and visual assessment date and time for each sample;
- Personnel collecting the sample and performing the visual assessment, and their signatures;
- Nature of the discharge (i.e., runoff or snowmelt);
- Results of observations of the stormwater discharge;
- Probable sources of any observed stormwater contamination (if applicable);
- If applicable, why it was not possible to take a sample within the first 30 minutes of the storm event.

The EPC-CP Group Leader has signed the certification statement to meet the duly authorized signatory requirements for the QVA completed by EPC-CP representatives contained in Enclosure 1.

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.
>
> Taunia S. Van Valkenburg, EPC-CP Group Leader
> Los Alamos National Laboratory
>
> Manager Signature — Date: 11/22/17

Part 3.2.3 of the 2015 MSGP allows the facility to take a substitute sample during the next qualifying storm event when adverse weather conditions prevent the collection of samples during a specific quarter. Adverse weather conditions are those that are dangerous or create inaccessibility for personnel, or situations that otherwise make sampling impractical, such as drought or extended frozen conditions. Documentation of the rationale for no visual assessment for the quarter must be included in the facility-specific SWPPP.

Please contact Holly Wheeler at 667-1312 (hbenson@lanl.gov) if you have questions regarding the QVA documentation. Thank you for your assistance in meeting the requirements of the Laboratory's NPDES 2015 MSGP Permit.

Facility Name	Sampling Station	Work Order #
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-60824
TA-60-1 Heavy Equipment Yard	MSGP02201	MSGP-61116
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-61125
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-61126
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-61127
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-61161

TWL/HLW: am

Enclosure(s):
1. Quarterly Visual Assessment Forms, Third Quarter, 2017 Monitoring Year

Copy: Russell Stone, DESHS-UIS, (E-File)
Adesh-records@lanl.gov, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)

ENCLOSURE 1

Quarterly Visual Assessment Forms
Third Quarter, 2017 Monitoring Year

EPC-DO: 17-491

Date: NOV 2 7 2017

Maintenance Details

Requested: 8/9/2017 2:13:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 3)
Last PM: 7/19/2017
Project: SIO Visual Assessments 8/1/17 (P-MSGP-5209)

Target: 9/30/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period (e.g., Apr-May)	Aug-Sep	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/20/17, 1:20	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/20/17, 1:20	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/21/17, 9:47	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain, 0.31"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Brown	☒	☐	☐
120	Is sample oderless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		☐	☐	☑
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).	Opaque	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	Fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, course).	Fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g.,'on the surface' or 'in the sample').		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		☐	☐	☑

Labor Report

Completed: 8/21/2017 9:47:00 AM

Report: Antonio Trujillo

8/24/2017

Signature / Name	Date	Signature / Name	Date

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-61116

MSGP Monitoring Stations
Printed 10/18/2017 - 2:29 PM

Maintenance Details

Requested By: Banar, Alethea on 8/9/2017 2:12:00 PM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.23)
Last PM: 8/9/2017
Project: Visual Assessments 8/1/17 (P-MSGP-5208)

Target: 9/30/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
MSGP02201

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period (e.g., Apr-May)	Aug-Sep	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/7/17, 11:25	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/7/17, 11:35	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/9/17, 14:23	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain, 0.26"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Brown	☒	☐	☐
120	Is sample oderless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		☐	☐	☑
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).	Opaque	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, course).	fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g.,'on the surface' or 'in the sample').		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		☐	☐	☑

Labor Report

Completed: 8/9/2017 2:23:00 PM

Report: Antonio Trujillo

8/14/2017

Signature / Name Date Signature / Name Date

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-61125

MSGP Monitoring Stations
Printed 10/18/2017 - 2:30 PM

Maintenance Details

Requested: 8/9/2017 2:44:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 3)
Last PM: 8/1/2017
Project: SIO Visual Assessments 8/1/17 (P-MSGP-5209)

Target: 9/30/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.					
Sample information					
30	Document the monitoring Period (e.g., Apr-May)	Aug-Sep	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/11/17, 13:45	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/11/17, 13:45	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/14/17, 10:45	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain, 0.48"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☑
Parameters					
110	Is sample colorless? If "Failed", describe.		☐	☐	☑
120	Is sample oderless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		☐	☐	☑
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).		☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, course).		☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g.,'on the surface' or 'in the sample').		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		☐	☐	☑

Labor Report

Completed: 8/14/2017 10:45:00 AM

Report: Antonio Trujillo
8/17/2017

Signature / Name	Date	Signature / Name	Date

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-61126

MSGP Monitoring Stations
Printed 10/18/2017 - 2:32 PM

Maintenance Details

Requested: 8/9/2017 2:44:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 3)
Last PM: 8/9/2017
Project: SIO Visual Assessments 8/1/17 (P-MSGP-5209)

Target: 9/30/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period (e.g., Apr-May)	Aug-Sep	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/20/17, 1:20	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/20/17, 1:20	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/21/17, 9:00	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain, 0.31"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☐
	Parameters				
110	Is sample colorless? If "Failed", describe.		☐	☐	☑
120	Is sample oderless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		☐	☐	☑
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).		☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	Course	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, course).	Fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g.,'on the surface' or 'in the sample').		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		☐	☐	☑

Labor Report

Completed: 8/21/2017 9:00:00 AM

Report: Antonio Trujillo

8/24/2017

Signature / Name	Date	Signature / Name	Date

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Maintenance Details

Requested: 8/9/2017 2:44:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 3)
Last PM: 8/9/2017
Project: SIO Visual Assessments 8/1/17 (P-MSGP-5209)

Target: 9/30/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period (e.g., Apr-May)	Aug-Sep	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	08/07/2017 11:36	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	08/07/2017 11:36	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	08/09/2017 10:58	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain 0.26in	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Light Brown	☒	☐	☐
120	Is sample oderless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		☐	☐	☑
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).	Cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	Course	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, course).		☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g.,'on the surface' or 'in the sample').		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		☐	☐	☑

Labor Report

Completed: 8/9/2017 10:58:00 AM

Report: Audrey Smith
8/17/2017

Signature / Name	Date	Signature / Name	Date

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-61161

MSGP Monitoring Stations
Printed 10/18/2017 - 2:34 PM

Maintenance Details

Requested By: Banar, Alethea on 8/15/2017 3:16:00 PM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.23)
Last PM: 8/9/2017
Project: SIO Visual Assessments 8/1/17 (P-MSGP-5209)

Target: 9/30/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period (e.g., Apr-May)	Aug-Sep	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/11/17, 13:45	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/11/17, 13:45	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/14/17, 10:31	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain, 0.48"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Brown	☒	☐	☐
120	Is sample oderless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		☐	☐	☑
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).	opaque	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Raw	☒	☐	☐
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, course).	fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g.,'on the surface' or 'in the sample').		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		☐	☐	☑

Labor Report

Completed: 8/14/2017 10:31:00 AM

Report: Antonio Trujillo

8/16/2017

Signature / Name	Date	Signature / Name	Date

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Anthony R. Grieggs, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos
NATIONAL LABORATORY
EST. 1943

memorandum

Environmental Protection & Compliance Division

To: Jillian Burgin, DESHS-UIS, B274
Thru: Terrill Lemke, EPC-CP, (E-File)
From: Holly Wheeler, EPC-CP, (E-File)
Phone: 505-667-1312
Symbol: EPC-DO: 17-541
Date: JAN 12 2018

Subject: National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR053195, Multi-Sector General Permit (MSGP) Quarterly Visual Assessment (QVA) Forms for October and November of 2017 for the TA-60-1 Heavy Equipment Yard

Please find attached completed MSGP QVA forms documenting visual assessments performed during the fourth quarter of monitoring at the TA-60-1 Heavy Equipment Yard. Per Parts 3.2.2 and 5.5 of the 2015 MSGP, the signed certification statement and associated QVA forms shall be incorporated into your MSGP Stormwater Pollution Prevention Plan (SWPPP).

Part 3.2.1 of the 2015 MSGP requires the visual assessment of stormwater discharge samples collected from each outfall once each quarter for the entire permit term. Part 3.2.3 allows facilities that are located in an area with a semi-arid climate and/or in an area where freezing conditions exist for an extended period to distribute the quarterly visual assessments during seasons when precipitation runoff occurs. Accordingly, Los Alamos National Security, LLC (LANS) has designated the following MSGP monitoring quarters.

Quarter 1:	April – May	Quarter 2:	June – July
Quarter 3:	August – September	Quarter 4:	October - November

The attached QVA forms document the following information required by Part 3.2.2 of the 2015 MSGP and were completed by Environmental Compliance Programs (EPC-CP) personnel.

- Sample location;
- Sample collection date and time, and visual assessment date and time for each sample;
- Personnel collecting the sample and performing the visual assessment, and their signatures;
- Nature of the discharge (i.e., runoff or snowmelt);
- Results of observations of the stormwater discharge;
- Probable sources of any observed stormwater contamination (if applicable);
- If applicable, why it was not possible to take a sample within the first 30 minutes of the storm event.

The EPC-CP Group Leader has signed the certification statement to meet the duly authorized signatory requirements for the QVAs completed by EPC-CP representatives contained in Enclosure 1.

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.
>
> Taunia S. Van Valkenburg, EPC-CP Group Leader
> Los Alamos National Security, LLC
>
> Manager Signature — Date: 1/12/18

Part 3.2.3 of the 2015 MSGP allows the facility to take a substitute sample during the next qualifying storm event when adverse weather conditions prevent the collection of samples during a specific quarter. Adverse weather conditions are those that are dangerous or create inaccessibility for personnel, or situations that otherwise make sampling impractical, such as drought or extended frozen conditions. Documentation of the rationale for no visual assessment for the quarter must be included in the facility-specific SWPPP.

Please contact Holly Wheeler at 667-1312 (hbenson@lanl.gov) if you have questions regarding the QVA documentation. Thank you for your assistance in meeting the requirements of the Laboratory's NPDES 2015 MSGP Permit.

Facility Name	Sampling Station	Work Order #
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-61203
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-61289
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-61311
TA-60-1 Heavy Equipment Yard	MSGP02201	MSGP-61654
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-61670

TWL/HLW: eim

Enclosure(s): 1) Quarterly Visual Assessment Forms, Fourth Quarter, 2017 Monitoring Year

Copy: Russell Stone, DESHS-UIS, (E-File)
Adesh-records@lanl.gov, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)

ENCLOSURE 1

Quarterly Visual Assessment Forms
Fourth Quarter, 2017 Monitoring Year

EPC-DO: 17-541

Date: JAN 12 2018

Los Alamos National Lab - ADESH

Work Order MSGP-61203

MSGP Monitoring Stations
Printed 12/11/2017 - 9:37 AM

Maintenance Details

Requested By: Banar, Alethea on 8/21/2017 3:15:00 PM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.23)
Last PM: 8/14/2017
Project: SIO Visual Assessments 10/1/17 (P-MSGP-5230)

Target: 11/30/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (021)
MSGP02101

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period (e.g., Apr-May)	Oct-Nov	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/17, 20:45	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/17, 20:45	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/5/17, 11:53	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	rain, 0.92"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.		☐	☐	☑
120	Is sample oderless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		☐	☐	☑
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).		☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☑
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	course	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, course).	fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g.,'on the surface' or 'in the sample').		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		☐	☐	☑

Labor Report

Completed: 10/5/2017 11:53:00 AM

Report: Antonio Trujillo

10/13/2017			
Signature / Name	Date	Signature / Name	Date

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Taunia Van Valkenburg, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-61289

MSGP Monitoring Stations
Printed 12/11/2017 - 9:38 AM

Maintenance Details

Requested By: Banar, Alethea on 8/28/2017 11:33:00 AM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.23)
Last PM: 8/21/2017
Project: SIO Visual Assessments 10/1/17 (P-MSGP-5230)

Target: 11/30/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (023)
MSGP02301

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period (e.g., Apr-May)	Oct-Nov	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/17, 20:45	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/17, 20:45	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/5/17, 11:49	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	rain, 0.92"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Brown	☒	☐	☐
120	Is sample oderless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		☐	☐	☑
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).	cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, course).	fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g.,'on the surface' or 'in the sample').		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		☐	☐	☑

Labor Report

Completed: 10/5/2017 11:49:00 AM

Report: Antonio Trujillo

	10/13/2017		
Signature / Name	Date	Signature / Name	Date

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Taunia Van Valkenburg, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-61311

MSGP Monitoring Stations
Printed 12/11/2017 - 9:38 AM

Maintenance Details

Requested By: Banar, Alethea on 10/5/2017 11:43:00 AM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.23)
Last PM: 8/24/2017
Project: SIO Visual Assessments 10/1/17 (P-MSGP-5230)

Target: 11/30/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (024)
MSGP02401

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period (e.g., Apr-May)	Oct Nov	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/17, 20:45	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/17, 20:45	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/5/17, 11:43	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain, 0.92"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Brown	☒	☐	☐
120	Is sample oderless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		☐	☐	☑
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).	cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, course).	fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g.,'on the surface' or 'in the sample').		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		☐	☐	☑

Labor Report

Completed: 10/5/2017 11:43:00 AM

Report: Antonio Trujillo

10/13/2017

Signature / Name | Date | Signature / Name | Date

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Taunia Van Valkenburg, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-61654

MSGP Monitoring Stations
Printed 12/11/2017 - 9:35 AM

Maintenance Details

Requested: 10/4/2017 4:25:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 3)
Last PM: 10/5/2017
Project: Visual Assessments 10/1/17 (P-MSGP-5229)

Target: 11/30/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
MSGP02201

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period (e.g., Apr-May)	Oct-Nov	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/17, 20:45	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/17, 13:48	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/5/17, 12:05	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	rain, 0.92"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Brown	☒	☐	☐
120	Is sample oderless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		☐	☐	☑
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).	Opaque	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, course).	fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g.,'on the surface' or 'in the sample').		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		☐	☐	☑

Labor Report

Completed: 10/5/2017 12:05:00 PM

Report: Antonio Trujillo

10/12/2017

Signature / Name	Date	Signature / Name	Date
I confirm the information as recorded is true, accurate and complete.			

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Taunia Van Valkenburg, EPC-CP Group Leader

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-61670

MSGP Monitoring Stations
Printed 12/11/2017 - 9:39 AM

Maintenance Details

Requested By: Banar, Alethea on 10/5/2017 11:46:00 AM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.23)
Last PM: 10/3/2017
Project: SIO Visual Assessments 10/1/17 (P-MSGP-5230)

Target: 11/30/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-60-1 Heavy Equipment Yard
Monitored Outfall (022)
Substantially Identical Outfall (025)
MSGP02501

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Special Instructions: NMR053195

Tasks

#	Description	Meas.	No	N/A	Yes
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
	Sample information				
30	Document the monitoring Period (e.g., Apr-May)	Oct-Nov	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/17, 20:45	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/17, 20:45	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/5/17, 11:46	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	rain, 0.92"	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	brown	☒	☐	☐
120	Is sample oderless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		☐	☐	☑
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).	cloudy	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	fine	☒	☐	☐
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	fine	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, course).	fine	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g.,'on the surface' or 'in the sample').		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		☐	☐	☑

Labor Report

Completed: 10/5/2017 11:46:00 AM

Report: Antonio Trujillo

10/13/2017			
Signature / Name	Date	Signature / Name	Date

I confirm the information as recorded is true, accurate and complete.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

Print name and title: Taunia Van Valkenburg, EPC-CP Group Leader

Signature: (See signature on file) Date:

2015 NPDES Multi-Sector General Permit For Stormwater Discharges Associated With Industrial Activity (MSGP) Forms

United States Environmental Protection Agency
1200 Pennsylvania Ave, NW Washington, DC 20460

Permit Information (* indicates form required data)

What action would you like to take? *

New Industrial Stormwater Annual Report

Please select the NPDES ID corresponding to the facility for which you would like to submit an Annual Report and click the Submit button.

NPDES ID *

NMR053195: LOS ALAMOS NATIONAL LABORATORY

☒ Confirm NPDES ID: NMR053195: LOS ALAMOS NATIONAL LABORATORY *

Facility Information

Facility Name

Los Alamos National Laboratory

Street

PO Box 1663

Supplemental address

MS K490

City	State	Zip Code
Los Alamos	New Mexico	87545

First Name	Middle Name	Last Name	Telephone Number
Holly		Wheeler	5056671312

Summary of past year's inspections, assessments, and corrective actions

1. Provide a summary of your past year's routine facility inspection documentation (see Part 3.1.2 of the permit). In addition, if you are an operator of an airport facility (Sector S) that is subject to the airport effluent limitations guidelines, and are complying with the MSGP Part 8.S.8.1 effluent limitation through the use of non-urea-containing deicers, provide a statement certifying that you do not use airfield pavement deicers containing urea (e.g., "*I certify that [name of airport] is in compliance with the effluent limitation guideline for airfield pavement deicing by not using airfield pavement deicers that contain urea.*"). [Note: Operators of airport facilities that are complying with Part 8.S.8.1 by meeting the numeric effluent limitation for ammonia do not need to include this statement.] *

Los Alamos National Laboratory (LANL), operated by Los Alamos National Security, LLC (LANS), consists of 14 active industrial sites that operate under 8 different Sectors (A, D, F, K, N, O, P, and AA). All 14 active sites were inspected according the schedules identified in the site-specific SWPPPs. The 26 sites that qualify for a conditional exclusion for no exposure were inspected between December 1st and 22nd, 2016. A total of 198 inspections and/or evaluations resulting in corrective actions were conducted at a total of 40 sites as follows:
TA-3-22 Power and Steam Plant – 20; TA-3-29 Indoor TSD and Machine Shop – 1; TA-3-30 Warehouse – 2; TA-3-34-Metal Shop -1; TA-3-38 Carpenter Shop – 13; TA-3-38 Metals Fab Shop – 16; TA-3-39 and 102 Metal Shop – 7; TA-3-40, Room 1315 Machine Shop – 1; TA-3-66 Sigma Facility – 7; TA-3-2206 Warehouse – 1; TA-9-28 Heavy Equipment Maintenance – 1; TA-14-23 Burn Cage – 1; TA-15-313 Machine Shop – 1; TA-22-52 Machine Shop – 1; TA-33-39 Machine Shop – 1; TA-33-113 Machine Shop – 1; TA-35-2 Machine Shop – 1; TA-35-125 Machine Shop – 1; TA-46-31 Machine Shop – 1; TA-48-8 Machine Shop – 1; TA-50-54 Machine Shop – 1; TA-50-69 TSD – 1; TA-53-2 Machine Shop – 2; TA-53-3 Machine Shop – 1; TA-53-16 Machine Shop – 1; TA-53-26 Machine Shop – 1; TA-54-38 Indoor TSD – 1; TA-54 Area L – 8; TA-54 Area G – 13; TA-54 Maintenance Facility West – 6; TA-54 RANT – 9; TA-55-3 Metal Shop – 1; TA-55-5 Warehouse – 1; TA-55-268 Warehouse – 1; TA-55-314 Warehouse – 1; TA-60 Asphalt Batch Plant – 12; TA-60 MRF – 14; TA-60 Roads and Grounds – 12; TA-60-1 Heavy Equipment Yard – 19; and TA-60-2 Warehouse – 16.

2. Provide a summary of your past year's quarterly visual assessment documentation (see Part 3.2.2 of the permit) *

A total of 668 visual assessments were completed at 66 different outfalls. Evidence of an oil sheen was observed in four samples: Outfall 021 on 11/04/2016, Outfall 024 on 09/07/2016 and 11/04/2016, and Outfall 052 on 05/02/2016. No other evidence of pollutants were observed.

3. For any four-sample (minimum) average benchmark monitoring exceedance, if after reviewing the selection, design, installation and implementation of your control measures and considering whether any modifications are necessary to meet the effluent limits in the permit, you determine that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice, provide your rationale for why you believe no further reductions are achievable (see Part 6.2.1.2 of the permit). Enter "NA" if not applicable. *

N/A

4. Provide a summary of your past year's corrective action documentation (See Part 4.4 of the permit). (Note: If corrective action is not yet completed at the time of submission of this annual report, you must describe the status of any outstanding corrective action(s).) Also describe any incidents of noncompliance in the past year or currently ongoing, or if none, provide a statement that you are in compliance with the permit. *

A total of 198 inspections and/or evaluations resulting in corrective actions were conducted at a total of 40 sites with the following total count of conditions observed:

Unauthorized Release or Discharge – 24; Control Measures Needing Maintenance, Repairs, or Replacement – 48; Additional Control Measures Needed – 2; Control Measures Inadequate to Meet Non-Numeric Effluent Limitations – 63; Incidents of Noncompliance [New Mexico Water Quality Standard (NM WQS) Exceedances – 23; Incidents of Noncompliance: Average Exceeds or is Average Exceeds or is Mathematically Certain to Exceed Benchmark Value – 6; Average Exceeds or is Mathematically Certain to Exceed Benchmark Value – 23.

At this time, there are only 2 outstanding corrective actions, both identified on December 19, 2016 and proposed for completion by February 2, 2017.
Regarding incidents of noncompliance, 28 monitored constituents from different outfalls exceeded an individual New Mexico Water Quality Standard (NM WQS). In addition, 9 monitored quarterly benchmark constituent value exceedances occurred where the benchmark value was modified to reflect a NM WQS per Section 9.6.2.1. Corrective actions to address these exceedances have been completed.
EPC-DO: 17-084; LA-UR-17-20556

Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. 40 CFR 122.22 (d)

2015 NPDES Multi-Sector General Permit For Stormwater Discharges Associated With Industrial Activity (MSGP) Forms

United States Environmental Protection Agency
1200 Pennsylvania Ave, NW Washington, DC 20460

Permit Information (* indicates form required data)

What action would you like to take? *

New Industrial Stormwater Annual Report

Please select the NPDES ID corresponding to the facility for which you would like to submit an Annual Report and click the Submit button.

NPDES ID *

NMR053195: LOS ALAMOS NATIONAL LABORATORY

☒ Confirm NPDES ID: NMR053195: LOS ALAMOS NATIONAL LABORATORY *

Facility Information

Facility Name

Los Alamos National Laboratory

Street

PO Box 1663

Supplemental address

MS K490

City	State	Zip Code
Los Alamos	New Mexico	87545

First Name	Middle Name	Last Name	Telephone Number
Holly		Wheeler	5056671312

Summary of past year's inspections, assessments, and corrective actions

1. Provide a summary of your past year's routine facility inspection documentation (see Part 3.1.2 of the permit). In addition, if you are an operator of an airport facility (Sector S) that is subject to the airport effluent limitations guidelines, and are complying with the MSGP Part 8.S.8.1 effluent limitation through the use of non-urea-containing deicers, provide a statement certifying that you do not use airfield pavement deicers containing urea (e.g., "*I certify that [name of airport] is in compliance with the effluent limitation guideline for airfield pavement deicing by not using airfield pavement deicers that contain urea.*"). [Note: Operators of airport facilities that are complying with Part 8.S.8.1 by meeting the numeric effluent limitation for ammonia do not need to include this statement.] *

Los Alamos National Laboratory (LANL), operated by Los Alamos National Security, LLC (LANS), consists of 13 active industrial sites that operate under 8 different Sectors (A, D, F, K, N, O, P, and AA). All 13 active sites were inspected according the schedules identified in the site-specific Stormwater Pollution Prevention Plans (SWPPPs). The 35 sites that qualify for a conditional exclusion for no exposure and one inactive site were inspected between December 1st and 22nd, 2017. A total of 153 inspections were conducted at 49 facilities. A count of corrective actions by facility are as follows:

TA-3-Power and Steam Plant – 27; TA-3-32 Metal Shop – 2; TA-3-38 Carpenter Shop – 6; TA-3-38 Metals Fab Shop – 18; TA-3-39 and 102 Metal Shop – 12; TA-3-66 Sigma Facility – 23; TA-9-28 Heavy Equipment Maintenance – 1; TA-15-313 Machine Shop – 2; TA-35-125 Machine Shop – 1; TA-46-31 Machine Shop – 1 ; TA-50-69 WCRRF – 3; TA-53-2 Machine Shop – 3; TA-53-16 Machine Shop – 1; TA-53-26 Machine Shop – 1; TA-54 Area L – 9; TA-54 Area G – 15; TA-54 Maintenance Facility West – 4; TA-54 RANT – 6; TA-60 Asphalt Batch Plant – 8; TA-60 MRF – 17; TA-60 Roads and Grounds – 45; TA-60-1 Heavy Equipment Yard – 28; TA-60-2 Warehouse – 20; TA-63 Transuranic Waste Facility – 1.

2. Provide a summary of your past year's quarterly visual assessment documentation (see Part 3.2.2 of the permit) *

A total of 529 visual assessments were completed at 70 different outfalls. Evidence of an oil sheen was observed in two samples: Outfall 024 and Outfall 028 on 04/04/2017. No other evidence of pollutants were observed.

3. For any four-sample (minimum) average benchmark monitoring exceedance, if after reviewing the selection, design, installation and implementation of your control measures and considering whether any modifications are necessary to meet the effluent limits in the permit, you determine that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice, provide your rationale for why you believe no further reductions are achievable (see Part 6.2.1.2 of the permit). Enter "NA" if not applicable. *

N/A

4. Provide a summary of your past year's corrective action documentation (See Part 4.4 of the permit). (Note: If corrective action is not yet completed at the time of submission of this annual report, you must describe the status of any outstanding corrective action(s).) Also describe any incidents of noncompliance in the past year or currently ongoing, or if none, provide a statement that you are in compliance with the permit. *

A total of 153 inspections were conducted at 49 facilities, with the following total count of conditions observed:

SWPPP Non-conformance – 2; Unauthorized Release or Discharge – 48; Control Measures Needing Maintenance, Repairs, or Replacement – 50; Additional Control Measures Needed – 1; Control Measures Inadequate to Meet Non-Numeric Effluent Limitations – 78; Incidents of Noncompliance (Effluent Limitation Guidelines Exceedances) – 1; Incidents of Noncompliance [(New Mexico Water Quality (NM WQS) Exceedances] – 32; Incidents of Noncompliance (Average Exceeds or is Mathematically Certain to Exceed Benchmark Value Modified to Reflect a NM WQS per Section 9.6.2.1) – 15; Average Exceeds or is Mathematically Certain to Exceed Benchmark Value – 27.

At the time of annual report submission, there is only one outstanding corrective action, identified on December 21, 2017, and scheduled to be completed by February 1, 2018. Regarding incidents of noncompliance, 32 monitored constituents from different outfalls exceeded an individual NM WQS; 15 monitored quarterly benchmark constituent exceedances occurred where the benchmark value was modified to reflect a NM WQS per Section 9.6.2.1; and one effluent limitation guideline exceedance occurred. Corrective actions to address these exceedances have been completed. LA-UR-18-20566.

Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. 40 CFR 122.22 (d)

APPENDIX G

Spill Reports

Los Alamos National Laboratory
Enivronmental Compliance Programs (ENV-CP)
Non-Reportable Release Form

Form Completed By:	Telephone:	Group:
Jillian Burgin	505-665-1893	DESHS-UIS

Spill Details — Spill Owner (Specify): ☒ LANS, LLC ☐ Subcontractor:

Date of Spill/Date Spill Discovered: 9/11/17 - 1:40 p.m.

Location: TA-60-1 Heavy Equipment Shop

Material Spilled:
- ☐ Hydraulic Fluid
- ☐ Potable Water
- ☐ Diesel
- ☐ Anti-freeze/coolant
- ☐ Steam Condensate
- ☐ Lubricants/oils
- ☐ Refrigerant Oil
- ☐ Gasoline
- ☒ Other: Water/Calcium Chloride

Volume Spilled: ~50 gals. **Waste Volume Generated:** ~55 gals. (dry absorbent)

Source of Spill: Old loader tire being dismantled from wheel
Vehicle ID: _____
Equipment ID: _____
- ☐ Hydraulic Line
- ☐ Potable Water Line
- ☐ Fire Suppression System
- ☐ Fuel Tank
- ☐ Radiator
- ☐ Condensate Line
- ☒ Other: Salt water in tire

Describe the spill response in chronological order. Include response personnel, steps taken to contain the spill, and steps/spill control equipment used to clean it up. Please indicate if corrective actions have been completed and describe actions taken to prevent spill recurrence:

Approximately 50 gallons of water contained inside a tire from a piece of heavy equipment discharged when the tire was removed at the shop. Water can be added to heavy equipment tires to improve operational traction and stability, but the mechanics were unaware this tire contained any water. The water is believed to contain calcium chloride which can be added to the water to prevent freezing. There was also evidence of some particulates from inside the tire discharged with the water as well. The water flowed through the upper east parking lot and reached the basecourse on the east side yard, but did not leave the site. Site personnel immediately used absorbent to contain the release and removed as much of the discharged liquid as possible. The top layer of the impacted soil/basecourse was also removed. Additionally, a street sweeper was brought on site to collect and remove as much of the particulates transported from the discharge in the parking lot as possible. Micro-blaze was also applied to the impacted asphalt on 9/12/17. The discharge is not reportable to NMED pursuant to 20.6.2.1203 NMAC.

Date Corrective Actions Completed: 9/12/17

Did the spill enter or impact any of the following? (Check as many as apply)
- ☐ RCRA Treatment Storage Disposal Facility
- ☐ RCRA Satellite Accumulation Area
- ☐ RCRA <90 Day Storage Area
- ☐ Floor Drain, if so please indicate affected facility _____
- ☐ Watercourse/drainage area, if so please indicate _____
- ☐ Solid Waste Management Unit/Area of Concern, if so please indicate _____
- ☒ None

Did the spill occur inside or outside a building? ☐ Inside ☒ Outside

Did the spill occur on: (Check as many as apply)
- ☐ Concrete
- ☐ Carpeted Floor
- ☐ Tile
- ☐ Wooden floor/deck
- ☒ Asphalt
- ☒ Graveled/Rocky Area
- ☐ Soil/Vegetated Area
- ☐ Other: _____

Samples Collected:
- ☒ None
- ☐ Water
- ☐ Soil
- ☐ Air
- ☐ Metals
- ☐ General Chemistry
- ☐ SVOCs
- ☐ Other: _____

Certification

I certify that I am knowledgeable about the information on this form. The information, to my knowledge, is true, accurate, and complete.

Name of Certifying Official: Jillian Burgin **Organization:** DESHS-UIS **Date:** 9/14/17

Certification: **Date Received by ENV-CP:** 9/14/17

Los Alamos National Laboratory
Environmental Compliance Programs (ENV-CP)
Unplanned Release Report

Form Completed By:	Telephone:	Group:
Jillian Burgin, DEP	665-1893	DESHS-UIS

Spill Details — Spill Owner (Specify): ■ LANS, LLC ☐ Subcontractor:

Date of Spill/Date Spill Discovered: 12/14/16 - 10:30 a.m.

Location: TA-60-1 Heavy Equipment Shop (Front Middle Bay)

Material Spilled:

- ■ Hydraulic Fluid
- ☐ Potable Water
- ☐ Diesel
- ☐ Anti-freeze/coolant
- ☐ Steam Condensate
- ☐ Lubricants/oils
- ☐ Refrigerant Oil
- ☐ Gasoline
- ☐ Other: _____

Volume Spilled: 2-4 gallons **Waste Volume Generated:** ~5 gallons

Source of Spill: John Deere 670 Grader
Vehicle ID: P/N: 30584
Equipment ID: B/C: 803823

- ☐ Hydraulic Line
- ☐ Potable Water Line
- ☐ Fire Suppression System
- ☐ Fuel Tank
- ☐ Radiator
- ☐ Condensate Line
- ☐ Other: _____

Describe the spill response in chronological order. Include response personnel, steps taken to contain the spill, and steps/spill control equipment used to clean it up. Please indicate if corrective actions have been completed and describe actions taken to prevent spill recurrence:

The John Deere grader was being taken into the HES for repairs when a valve broke, releasing 2-4 gallons of hydraulic fluid. The fluid leaked from the east staging area to the front middle bay of the shop. The spill was cleaned up immediately with Floor Dry absorbent and Microblaze. There was no release to a storm drain or watercourse. HES personnel containerized waste from the spill. The vehicle is in the process of being repaired. DEP, WMC and EPC were notified. MSGP CAR# is 1007.

Date Corrective Actions Completed: 12/14/16

Did the spill enter or impact any of the following? (Check as many as apply)

- ☐ RCRA Treatment Storage Disposal Facility
- ☐ RCRA Satellite Accumulation Area
- ☐ RCRA <90 Day Storage Area
- ☐ Floor Drain, if so please indicate affected facility _____
- ☐ Watercourse/drainage area, if so please indicate _____
- ☐ Solid Waste Management Unit/Area of Concern, if so please indicate _____
- ■ None

Did the spill occur inside or outside a building? ☐ Inside ☐ Outside

Did the spill occur on: (Check as many as apply)

- ☐ Concrete
- ☐ Carpeted Floor
- ☐ Tile
- ☐ Wooden floor/deck
- ■ Asphalt
- ☐ Graveled/Rocky Area
- ☐ Soil/Vegetated Area
- ☐ Other: _____

Samples Collected:

- ■ None
- ☐ Water
- ☐ Soil
- ☐ Air
- ☐ Other: _____

If samples were collected, indicate analytical suite:

Certification

I certify that I am knowledgeable about the information on this form. The information, to my knowledge, is true, accurate, and complete.

Name of Certifying Official: Jillian Burgin **Organization:** DESHS-UIS **Date:** 12/15/16

Certification: Digitally signed by Jillian Burgin DN: cn=Jillian Burgin, o=Los Alamos National Laboratory, ou=DESH-UIMS, email=jburgin@lanl.gov, c=US Date: 2016.12.15 10:22:13 -07'00'

Completed by ENV-CP Personnel

Date Received: 12/15/16 **Severity Index:** 3 **Causal Analysis:** PM

☑ **Non-Reportable**
☐ **Reportable**

Los Alamos National Laboratory
Environmental Compliance Programs (ENV-CP)
Unplanned Release Report

Form Completed By:	Telephone:	Group:
Jillian Burgin, DEP	665-1893	DESHS-CPCS/UIS

Spill Details

Spill Owner (Specify): ■ LANS, LLC ☐ Subcontractor:

Date of Spill/Date Spill Discovered: 11/09/2016 - 11:30 a.m.

Location: TA-60-1 Heavy Equipment Shop (Upper East Lot on South End)

Material Spilled:

- ☐ Hydraulic Fluid
- ☐ Potable Water
- ■ Diesel
- ☐ Anti-freeze/coolant
- ☐ Steam Condensate
- ☐ Lubricants/oils
- ☐ Refrigerant Oil
- ☐ Gasoline
- ☐ Other: _____

Volume Spilled: **Waste Volume Generated:**

Source of Spill:
Vehicle ID: G82-01079
Equipment ID: _____

- ☐ Hydraulic Line
- ☐ Potable Water Line
- ☐ Fire Suppression System
- ☐ Fuel Tank
- ☐ Radiator
- ☐ Condensate Line
- ☐ Other: _____

Describe the spill response in chronological order. Include response personnel, steps taken to contain the spill, and steps/spill control equipment used to clean it up. Please indicate if corrective actions have been completed and describe actions taken to prevent spill recurrence:

A refueling truck (G82-01079) leaked approximately 1 gallon of diesel fuel onto the asphalt parking lot at Heavy Equipment. The truck was started and the fuel leaked out of the back pump vent due to a malfunction. The truck is in the process of being decommissioned since a new one has been put into service. The spill was immediately cleaned up with floor dry.

Date Corrective Actions Completed: 11/09/2016

Did the spill enter or impact any of the following? (Check as many as apply)

- ☐ RCRA Treatment Storage Disposal Facility
- ☐ RCRA Satellite Accumulation Area
- ☐ RCRA <90 Day Storage Area
- ☐ Floor Drain, if so please indicate affected facility _____
- ☐ Watercourse/drainage area, if so please indicate _____
- ☐ Solid Waste Management Unit/Area of Concern, if so please indicate _____
- ■ None

Did the spill occur inside or outside a building? ☐ Inside ☒ Outside BMS 11/16/16

Did the spill occur on: (Check as many as apply)

- ☐ Concrete
- ☐ Carpeted Floor
- ☐ Tile
- ☐ Wooden floor/deck
- ■ Asphalt
- ☐ Graveled/Rocky Area
- ☐ Soil/Vegetated Area
- ☐ Other: _____

Samples Collected:

- ■ None
- ☐ Water
- ☐ Soil
- ☐ Air
- ☐ Other: _____

If samples were collected, indicate analytical suite:

Certification

I certify that I am knowledgeable about the information on this form. The information, to my knowledge, is true, accurate, and complete.

Name of Certifying Official: Jillian Burgin **Organization:** DESHS-CPCS/UIS **Date:** 11/09/2016

Certification: Digitally signed by Jillian Burgin DN: cn=Jillian Burgin, o=Los Alamos National Laboratory, ou=DSESH-UIMS, email=jburgin@lanl.gov, c=US Date: 2016.11.09 14:25:39 -07'00'

Completed by ENV-CP Personnel

Date Received: 11/16/16 **Severity Index:** **Causal Analysis:** RM

☒ Non-Reportable
☐ Reportable

Los Alamos National Laboratory
Environmental Compliance Programs (ENV-CP)
Unplanned Release Report

Form Completed By:	Telephone:	Group:
Jillian Burgin, DEP	665-1893	DESHS-CPCS

Spill Details — Spill Owner (Specify): ■LANS, LLC ☐Subcontractor:

Date of Spill/Date Spill Discovered: 10/19/16 - 2:30 PM

Location: TA-60-1 Heavy Equipment Shop (lower bay)

Material Spilled:

- ■ Hydraulic Fluid
- ☐ Potable Water
- ☐ Diesel
- ☐ Anti-freeze/coolant
- ☐ Steam Condensate
- ☐ Lubricants/oils
- ☐ Refrigerant Oil
- ☐ Gasoline
- ☐ Other: _____

Volume Spilled: 89 gallons **Waste Volume Generated:** ~110 gals (2-55 gal drums)

Source of Spill:
Vehicle ID: 1235761
Equipment ID: LANL Wildland Fire Vehicle

- ■ Hydraulic Line
- ☐ Potable Water Line
- ☐ Fire Suppression System
- ☐ Fuel Tank
- ☐ Radiator
- ☐ Condensate Line
- ☐ Other: _____

Describe the spill response in chronological order. Include response personnel, steps taken to contain the spill, and steps/spill control equipment used to clean it up. Please indicate if corrective actions have been completed and describe actions taken to prevent spill recurrence:

A BARKO Timber Mulcher was in the HE shop bay for repairs. When a shop mechanic attempted to turn off the main valve to the tank, the valve was defective, and the hydraulic oil from the vehicle spilled into the bay. Shop workers immediately cleaned up the spill with Floor Dry. The spill was contained in the bay and waste was placed into 55 gallon drums for disposal.

Date Corrective Actions Completed: 10/19/16

Did the spill enter or impact any of the following? (Check as many as apply)

- ☐ RCRA Treatment Storage Disposal Facility
- ☐ RCRA Satellite Accumulation Area
- ☐ RCRA <90 Day Storage Area
- ☐ Floor Drain, if so please indicate affected facility _____
- ☐ Watercourse/drainage area, if so please indicate _____
- ☐ Solid Waste Management Unit/Area of Concern, if so please indicate _____
- ■ None

Did the spill occur inside or outside a building? ■ Inside ☐ Outside

Did the spill occur on: (Check as many as apply)

- ☐ Concrete
- ☐ Carpeted Floor
- ☐ Tile
- ☐ Wooden floor/deck
- ☐ Asphalt
- ☐ Graveled/Rocky Area
- ☐ Soil/Vegetated Area
- ■ Other: Inside Shop Bay

Samples Collected:

- ■ None
- ☐ Water
- ☐ Soil
- ☐ Air
- ☐ Other: _____

If samples were collected, indicate analytical suite:

Certification

I certify that I am knowledgeable about the information on this form. The information, to my knowledge, is true, accurate, and complete.

Name of Certifying Official: Jillian Burgin **Certification:**

Digitally signed by Jillian Burgin
DN: cn=Jillian Burgin, o=Los Alamos National Laboratory, ou=DSESH-UIMS, email=jburgin@lani.gov, c=US
Date: 2016.10.19 15:20:26 -06'00'

Organization: DESHS-CPCS **Date:** 10/19/16

Completed by ENV-CP Personnel

Date Received: **Severity Index:** **Causal Analysis:**

- ☐ Non-Reportable
- ☐ Reportable

Los Alamos National Laboratory
Environmental Compliance Programs (ENV-CP)
Unplanned Release Report

Form Completed By:	Telephone:	Group:
Jillian Burgin, DEP	665-1893	DESHS-CPCS/UIS

Spill Details — Spill Owner (Specify): ■ LANS, LLC ☐ Subcontractor:

Date of Spill/Date Spill Discovered: 9/20/16 - 10:45 a.m.

Location: TA-60-1 Heavy Equipment Yard (East Lot)

Material Spilled:

- ☐ Hydraulic Fluid
- ☐ Potable Water
- ■ Diesel
- ☐ Anti-freeze/coolant
- ☐ Steam Condensate
- ☐ Lubricants/oils
- ☐ Refrigerant Oil
- ☐ Gasoline
- ☐ Other: _____

Volume Spilled:

Waste Volume Generated: ~ 1.5 Gallons of absorbent

Source of Spill:
Vehicle ID: E29922 (Mobile Testing Unit)
Equipment ID: _____

- ☐ Hydraulic Line
- ☐ Potable Water Line
- ☐ Fire Suppression System
- ■ Fuel Tank
- ☐ Radiator
- ☐ Condensate Line
- ☐ Other: _____

BmI 9/29/16

Describe the spill response in chronological order. Include response personnel, steps taken to contain the spill, and steps/spill control equipment used to clean it up. Please indicate if corrective actions have been completed and describe actions taken to prevent spill recurrence:

A personnel security mobile testing unit (E29922) was awaiting repairs at the Heavy Equipment Shop when a fuel tank leak occurred in the parking lot. Approximately 1/2 gallon of diesel fuel leaked onto the asphalt lot. The leaked fuel was immediately cleaned up with floor dry absorbent and the vehicle was taken immediately into the shop for repairs. The spill was contained on the asphalt parking lot and did not leave the site or enter a storm drain. The spill will be documented in the site's MSGP stormwater plan as per SWPPP requirements.

Leaking vehicles can be typical at HES and shop personnel are prepared to immediately mitigate and clean-up leaks should they occur. Spill clean-up materials are kept readily available at the shop.

Date Corrective Actions Completed: 9/20/16

Did the spill enter or impact any of the following? (Check as many as apply)

- ☐ RCRA Treatment Storage Disposal Facility
- ☐ RCRA Satellite Accumulation Area
- ☐ RCRA <90 Day Storage Area
- ☐ Floor Drain, if so please indicate affected facility _____
- ☐ Watercourse/drainage area, if so please indicate _____
- ☐ Solid Waste Management Unit/Area of Concern, if so please indicate _____
- ■ None

Did the spill occur inside or outside a building? ☐ Inside ☐ Outside

Did the spill occur on: (Check as many as apply)

- ☐ Concrete
- ☐ Carpeted Floor
- ☐ Tile
- ☐ Wooden floor/deck
- ■ Asphalt
- ☐ Graveled/Rocky Area
- ☐ Soil/Vegetated Area
- ☐ Other: _____

Samples Collected:

- ■ None
- ☐ Water
- ☐ Soil
- ☐ Air
- ☐ Other: _____

If samples were collected, indicate analytical suite:

Certification

I certify that I am knowledgeable about the information on this form. The information, to my knowledge, is true, accurate, and complete.

Name of Certifying Official: **Organization:** DESHS-CPCS **Date:** 9/21/16

Certification: Jillian Burgin Digitally signed by Jillian Burgin DN: cn=Jillian Burgin, o=Los Alamos National Laboratory, ou=DSESH UIMS, email=jburgin@lanl.gov, c=US Date: 2016.09.21 15:48:23 -06'00'

Completed by ENV-CP Personnel

Date Received: 9/21/16 **Severity Index:** 3 **Causal Analysis:** PM

- ☑ Non-Reportable
- ☐ Reportable

Los Alamos National Laboratory
Environmental Compliance Programs (ENV-CP)
Unplanned Release Report

Form Completed By:	Telephone:	Group:
Cliff Heintschel	699-1605	DESHS-UIS

Spill Details — Spill Owner (Specify): ■ LANS, LLC ☐ Subcontractor:

Date of Spill/Date Spill Discovered: July 5, 2016

Location: TA 60 Heavy Equipment Yard

Material Spilled:

- ☐ Hydraulic Fluid
- ☐ Potable Water
- ■ Diesel
- ☐ Anti-freeze/coolant
- ☐ Steam Condensate
- ☐ Lubricants/oils
- ☐ Refrigerant Oil
- ☐ Gasoline
- ☐ Other: _____

Volume Spilled: 1 1/2 gallon **Waste Volume Generated:** One cubic yard

Source of Spill:
Vehicle ID: E 28493
Equipment ID: _____

- ☐ Hydraulic Line
- ☐ Potable Water Line
- ☐ Fire Suppression System
- ☐ Fuel Tank
- ☐ Radiator
- ☐ Condensate Line
- ■ Other: Onan generator (portable0

Describe the spill response in chronological order. Include response personnel, steps taken to contain the spill, and steps/spill control equipment used to clean it up. Please indicate if corrective actions have been completed and describe actions taken to prevent spill recurrence:

Crew must have overfilled tank. As temperature rose, fuel expanded and leaked out. HEY operations notified WMC, who notified DEP, who notified water quality. Absorbent applied, swept up and contained.

Microblaze applied.

Date Corrective Actions Completed: July 5, 2016

Did the spill enter or impact any of the following? (Check as many as apply)

- ☐ RCRA Treatment Storage Disposal Facility
- ☐ RCRA Satellite Accumulation Area
- ☐ RCRA <90 Day Storage Area
- ☐ Floor Drain, if so please indicate affected facility _____
- ☐ Watercourse/drainage area, if so please indicate _____
- ☐ Solid Waste Management Unit/Area of Concern, if so please indicate _____
- ■ None

Did the spill occur inside or outside a building? ☐ Inside ■ Outside

Did the spill occur on: (Check as many as apply)

- ☐ Concrete
- ☐ Carpeted Floor
- ☐ Tile
- ☐ Wooden floor/deck
- ■ Asphalt
- ☐ Graveled/Rocky Area
- ☐ Soil/Vegetated Area
- ☐ Other: _____

Samples Collected:

- ■ None
- ☐ Water
- ☐ Soil
- ☐ Air
- ☐ Other: _____

If samples were collected, indicate analytical suite:

Certification

I certify that I am knowledgeable about the information on this form. The information, to my knowledge, is true, accurate, and complete.

Name of Certifying Official: **Organization:** **Date:**

Certification: Cliff Heintschel Digitally signed by Cliff Heintschel DN: cn=Cliff Heintschel, o=DSESH-UIMS, ou=DSESH-UIMS, email: cliffh@lanl.gov, c=US Location: TA 3 1651

Completed by ENV-CP Personnel

Date Received: 7/5/16 **Severity Index:** 3 **Causal Analysis:** PLAN

- ☑ Non-Reportable
- ☐ Reportable

ENV-CP-Form 1009.0 6/2015

Return Completed Form to ENV-CP (jmeadows@lanl.gov)

Los Alamos National Laboratory
Environmental Compliance Programs (ENV-CP)
Unplanned Release Report

Form Completed By:	Telephone:	Group:
Cliff Heintschel	699-1605	DESHS-UIS

Spill Details — Spill Owner (Specify): ■ LANS, LLC ☐ Subcontractor:

Date of Spill/Date Spill Discovered: June 15, 2016

Location: TA-60-1 Heavy Equipment Yard BMI 6/16/16

Material Spilled:

- ☐ Hydraulic Fluid
- ☐ Potable Water
- ☐ Diesel
- ☐ Anti-freeze/coolant
- ☐ Steam Condensate
- ■ Lubricants/oils
- ☐ Refrigerant Oil
- ☐ Gasoline
- ☐ Other: _____

Volume Spilled: Half-gallon **Waste Volume Generated:** Several absorbent pads

Source of Spill:
Vehicle ID: Fire Truck tag# E201094
Equipment ID: _____

- ☐ Hydraulic Line
- ☐ Potable Water Line
- ☐ Fire Suppression System
- ☐ Fuel Tank
- ☐ Radiator
- ☐ Condensate Line
- ■ Other: Oil line

Describe the spill response in chronological order. Include response personnel, steps taken to contain the spill, and steps/spill control equipment used to clean it up. Please indicate if corrective actions have been completed and describe actions taken to prevent spill recurrence:

Noticed leak during monthly inspection. Was not being addressed. Asked Tim Walker Foster to bring crew to unit to discuss. Made sure everyone was aware of proper procedures. Crew microblazed and cleaned spot.

* Truck was parked in the parking lot awaiting repairs to the vehicle. BMI 6/16/16

Date Corrective Actions Completed: 06/15/2016

Did the spill enter or impact any of the following? (Check as many as apply)

- ☐ RCRA Treatment Storage Disposal Facility
- ☐ RCRA Satellite Accumulation Area
- ☐ RCRA <90 Day Storage Area
- ☐ Floor Drain, if so please indicate affected facility _____
- ☐ Watercourse/drainage area, if so please indicate _____
- ☐ Solid Waste Management Unit/Area of Concern, if so please indicate _____
- ■ None

Did the spill occur inside or outside a building? ☐ Inside ■ Outside

Did the spill occur on: (Check as many as apply)

- ☐ Concrete
- ☐ Carpeted Floor
- ☐ Tile
- ☐ Wooden floor/deck
- ■ Asphalt
- ☐ Graveled/Rocky Area
- ☐ Soil/Vegetated Area
- ☐ Other: _____

Samples Collected:

- ■ None
- ☐ Water
- ☐ Soil
- ☐ Air
- ☐ Other: _____

If samples were collected, indicate analytical suite:

Certification

I certify that I am knowledgeable about the information on this form. The information, to my knowledge, is true, accurate, and complete.

Name of Certifying Official: Cliff Heintschel **Organization:** **Date:**

Certification: Digitally signed by Cliff Heintschel DN: cn=Cliff Heintschel, o=DESHS-UIMS, ou=DESHS-UIMS, email=cliffh@lanl.gov, c=US Location: TA 3-1651 Date: 2016.06.15 11:47:18 -06'00'

Completed by ENV-CP Personnel

Date Received: 6/15/16 **Severity Index:** **Causal Analysis:**

- ☐ Non-Reportable
- ☐ Reportable

Return Completed Form to ENV-CP (jmeadows@lanl.gov)

Los Alamos National Laboratory
Environmental Compliance Programs (ENV-CP)
Unplanned Release Report

Form Completed By:	Telephone:	Group:
Mark Haagenstad	(505) 699-1733	ENV-CP

Spill Details — Spill Owner (Specify): ■ LANS, LLC ☐ Subcontractor:

Date of Spill/Date Spill Discovered: October 16, 2015

Location: East of TA-60-1

Material Spilled:

- ☐ Hydraulic Fluid
- ☐ Potable Water
- ☐ Diesel
- ☐ Anti-freeze/coolant
- ☐ Steam Condensate
- ☐ Lubricants/oils
- ☐ Refrigerant Oil
- ☐ Gasoline
- ■ Other: HK Aluminum Shield Roofing Sealant

Volume Spilled: 2-3 Gallons **Waste Volume Generated:** None.

Source of Spill: From product containers
Vehicle ID: NA
Equipment ID: NA

- ☐ Hydraulic Line
- ☐ Potable Water Line
- ☐ Fire Suppression System
- ☐ Fuel Tank
- ☐ Radiator
- ☐ Condensate Line
- ■ Other: Tipped container

Describe the spill response in chronological order. Include response personnel, steps taken to contain the spill, and steps/spill control equipment used to clean it up. Please indicate if corrective actions have been completed and describe actions taken to prevent spill recurrence:

Between 3:30 PM and 4:00 PM on Friday October 16, 2015, approximately 2-3 gallons of HK Aluminum Shield roof sealant tipped over in the back of a utility vehicle and released to the back of the vehicle and ultimately onto the asphalt on the east side of TA-60-1. Upon discovery of the release, workers contacted EM&R, who in turn contacted HAZMAT and ENV-CP (Mark Haagenstad). HAZMAT and ENV-CP visited the site and assessed the release. The material that spilled cured on the asphalt and became immobile. There was a small precipitation event after the release, however, there were no indications that the material impacted ponded storm water or became mobile. The material remains on the asphalt. No further actions (from a spill remediation perspective) are anticipated.

Date Corrective Actions Completed: 10/16/2015

Did the spill enter or impact any of the following? (Check as many as apply)

- ☐ RCRA Treatment Storage Disposal Facility
- ☐ RCRA Satellite Accumulation Area
- ☐ RCRA <90 Day Storage Area
- ☐ Floor Drain, if so please indicate affected facility: NA
- ☐ Watercourse/drainage area, if so please indicate: Assessed, no impacts.
- ☐ Solid Waste Management Unit/Area of Concern, if so please indicate: NA
- ■ None

Did the spill occur inside or outside a building? ☐ Inside ■ Outside

Did the spill occur on: (Check as many as apply)

- ☐ Concrete
- ☐ Carpeted Floor
- ☐ Tile
- ☐ Wooden floor/deck
- ■ Asphalt
- ☐ Graveled/Rocky Area
- ☐ Soil/Vegetated Area
- ☐ Other:

Samples Collected:

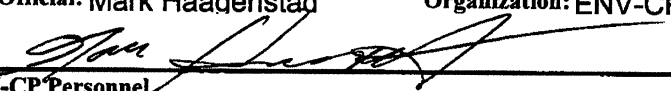
- ☐ None
- ☐ Water
- ☐ Soil
- ☐ Air
- ■ Other: Visual assessment of remaining storm water.

If samples were collected, indicate analytical suite:
Visual assessment. See photos.

Certification

I certify that I am knowledgeable about the information on this form. The information, to my knowledge, is true, accurate, and complete.

Name of Certifying Official: Mark Haagenstad **Organization:** ENV-CP **Date:** 10/16/2015

Certification: 

Completed by ENV-CP Personnel

Date Received: 10/19/15 **Severity Index:** 2 **Causal Analysis:** UC

- ☒ Non-Reportable
- ☐ Reportable

Return Completed Form to ENV-CP (jmeadows@lanl.gov)

Los Alamos National Laboratory
Environmental Compliance Programs (ENV-CP)
Unplanned Release Report

Form Completed By:	Telephone:	Group:
Cliff Heintschel	699-1605	DSESH-UIMS

Spill Details — Spill Owner (Specify): ■ LANS, LLC ☐ Subcontractor:

Date of Spill/Date Spill Discovered: September 14, 2015

Location: Heavy Equipment Yard and roadway to TA 55

Material Spilled:

- ☐ Hydraulic Fluid
- ☐ Potable Water
- ☐ Diesel
- ☐ Anti-freeze/coolant
- ☐ Steam Condensate
- ■ Lubricants/oils
- ☐ Refrigerant Oil
- ☐ Gasoline
- ☐ Other: _____

Volume Spilled: Several Gallons **Waste Volume Generated:** Several Gallons

Source of Spill:
Vehicle ID: _____
Equipment ID: _____

- ☐ Hydraulic Line
- ☐ Potable Water Line
- ☐ Fire Suppression System
- ☐ Fuel Tank
- ☐ Radiator
- ☐ Condensate Line
- ■ Other: Oil line

Describe the spill response in chronological order. Include response personnel, steps taken to contain the spill, and steps/spill control equipment used to clean it up. Please indicate if corrective actions have been completed and describe actions taken to prevent spill recurrence:

Heavy Equipment Yard person called and reported oil leak under road sweeper parked in yard. Oil trail was also leading outside the facility onto Eniwetok and to Diamond. Determined sweeper was leaking on jobsite at TA 55 and was driven back to the HEY. Setting up Fact Finding to determine why.....

Date Corrective Actions Completed: TBD

Did the spill enter or impact any of the following? (Check as many as apply)

- ☐ RCRA Treatment Storage Disposal Facility
- ☐ RCRA Satellite Accumulation Area
- ☐ RCRA <90 Day Storage Area
- ☐ Floor Drain, if so please indicate affected facility _____
- ☐ Watercourse/drainage area, if so please indicate _____
- ☐ Solid Waste Management Unit/Area of Concern, if so please indicate _____
- ■ None

Did the spill occur inside or outside a building? ☐ Inside ■ Outside

Did the spill occur on: (Check as many as apply)

- ☐ Concrete
- ☐ Carpeted Floor
- ☐ Tile
- ☐ Wooden floor/deck
- ■ Asphalt
- ☐ Graveled/Rocky Area
- ☐ Soil/Vegetated Area
- ☐ Other: _____

Samples Collected:

- ■ None
- ☐ Water
- ☐ Soil
- ☐ Air
- ☐ Other: _____

If samples were collected, indicate analytical suite:

Certification

I certify that I am knowledgeable about the information on this form. The information, to my knowledge, is true, accurate, and complete.

Name of Certifying Official: Cliff Heintschel **Organization:** DSESH-UIMS **Date:** September 16, 2015

Certification: Cliff Heintschel

Completed by ENV-CP Personnel

Date Received: 9-16-15 **Severity Index:** 3 **Causal Analysis:** PM

- ☒ Non-Reportable
- ☐ Reportable

APPENDIX H

Stormwater Monitoring Records and Results/MDMRs (Current Permit)

Los Alamos
NATIONAL LABORATORY
EST 1943

Environmental Protection & Compliance Division (EPC-DO)
Environmental Compliance Programs (EPC-CP)
PO Box 1663, K490
Los Alamos, New Mexico 87545
(505) 667-0666

Date: JUL 14 2016
Symbol: EPC-DO-16-204
LA-UR: 16-24990
Locates Action No.: N/A

U.S. EPA Region 6
NPDES Stormwater Program (WQ-PP)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

To whom it may concern:

Subject: National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR053195, Multi-Sector General Permit (MSGP) Industrial Discharge Monitoring Reports (MDMRs) For May 15 and 19, 2016

Enclosed are Los Alamos National Laboratory's MDMRs (Enclosure 1) for May 15 and 19, 2016, as required under MSGP Permit Tracking No. NMR053195, submitted on behalf of Los Alamos National Security LLC. These MDMRs contain analytical results for impaired water and quarterly benchmark monitoring at outfalls 009, 050, 069, 022, 047, and 073.

Please contact Holly Wheeler at (505) 667-1312 or Terrill Lemke at (505) 665-2397 if you have questions regarding these MDMRs.

Sincerely,

Anthony R. Grieggs
Group Leader
Environmental Compliance Programs (EPC-CP)
Los Alamos National Security, LLC

ARG:TWL:HLW/ms

Enclosure: 1. NPDES Permit Tracking No. NMR053195, MDMRs for May 15 and 19, 2016

Cy: Everett Spencer, EPA Region 6, Dallas TX (E-File)
Helen Nguyen, EPA Region 6, Dallas TX (E-File)
Craig S. Leasure, PADOPS, (E-File)
William R. Mairson, PADOPS, (E-File)
Michael T. Brandt, ADESH, (E-File)
Raeanna Sharp-Geiger, ADESH, (E-File)
John P. McCann, EPC-DO, (E-File)
Terrill W. Lemke, EPC-CP, (E-File)
Holly L. Wheeler, EPC-CP, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)

ENCLOSURE 1

NPDES Permit Tracking No NMR053195,
MDMRs for May 15 and 19, 2016

EPC-DO-16-204

LA-UR-16- 24990

Date: JUL 1 4 2016

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

If yes, check which waiver you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted:

- [ ] The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.
- [X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

- [X] Submitting monitoring data (Fill in all Sections).
- [ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).
- [ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).
- [ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).
- [ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

City: Los Alamos State: NM ZIP Code: 87545 -

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

First Name, Middle Initial, Last Name: Holly L. Wheeler

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

City: Los Alamos State: NM ZIP Code: 87545 -

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[X] Quarter 1: From	04	/	01	To	05	/	31
[ ] Quarter 2 (April 1 – June 30)	[ ] Quarter 2: From	06	/	01	To	07	/	31
[ ] Quarter 3 (July 1 – September 30)	[ ] Quarter 3: From	08	/	01	To	09	/	30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10	/	01	To	11	/	30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 0 2.b. Rainfall amount (inches): 0.2 2.c. Time since previous measurable storm event (days): 14

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
022	[ ] Substantially identical to outfall:	[ ]	I	Copper, dissolved	22.1	ug/L		05/15/2016	[ ]	[ ]
022	[ ] Substantially identical to outfall:	[ ]	I	Thallium, dissolved	ND		0.450 ug/L	05/15/2016	[ ]	[ ]
021	[X] Substantially identical to outfall: 022	[X]							[ ]	[ ]
023	[X] Substantially identical to outfall: 022	[X]							[ ]	[ ]
024	[X] Substantially identical to outfall: 022	[X]							[ ]	[ ]
025	[X] Substantially identical to outfall: 022	[X]							[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.50 hours. Rainfall amount = 0.15 inches.

022: The impaired water pollutant dissolved Copper exceeds the New Mexico water quality standard. The impaired water pollutant dissolved Thallium was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for dissolved Thallium will be discontinued per Part 6.2.4.1.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.2 2.c. Time since previous measurable storm event (days): 14

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
047	[ ] Substantially identical to outfall:	[ ]	I	Aluminum, total recoverable	84.5	ug/L		05/15/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Ammonia, total	0.983	mg/L		05/15/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Arsenic, dissolved	ND		1.70 ug/L	05/15/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Cadmium, dissolved	BQL		1.00 ug/L	05/15/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Chemical Oxygen Demand (COD)	75.2	mg/L		05/15/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Cyanide, total	BQL		0.005 mg/L	05/15/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Lead, dissolved	BQL		2.00 ug/L	05/15/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Magnesium, total	0.609	mg/L		05/15/2016	[ ]	[ ]

047	☐ Substantially identical to outfall:	☐	QBM	Mercury, total	ND		0.067 ug/L	05/15/2016	☐	☐
047	☐ Substantially identical to outfall:	☐	QBM	Selenium, total	ND		1.50 ug/L	05/15/2016	☐	☐
047	☐ Substantially identical to outfall:	☐	QBM	Silver, dissolved	ND		0.200 ug/L	05/15/2016	☐	☐
046	☒ Substantially identical to outfall: 047	☒							☐	☐
045	☒ Substantially identical to outfall: 047	☒							☐	☐
048	☒ Substantially identical to outfall: 047	☒							☐	☐
044	☒ Substantially identical to outfall: 047	☒							☐	☐

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.58 hours. Rainfall amount = 0.20 inches.

047: The average concentration of total Magnesium is mathematically certain to exceed the benchmark value.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.2 2.c. Time since previous measurable storm event (days): 9

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
050	[ ] Substantially identical to outfall:	[ ]	QBM	Silver, dissolved	ND		0.200 ug/L	05/15/2016	[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.58 hours. Rainfall amount = 0.20 inches.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.0 2.c. Time since previous measurable storm event (days): 14

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
069	[ ] Substantially identical to outfall:	[ ]	I	Aluminum, total recoverable	593	ug/L		05/15/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Ammonia, total	0.716	mg/L		05/15/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	I	Aroclor, total	ND		0.0351 ug/L	05/15/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Chemical Oxygen Demand (COD)	202	mg/L		05/15/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Cyanide, total	BQL		0.005 mg/L	05/15/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Magnesium, total	0.776	mg/L		05/15/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Mercury, total	ND		0.067 ug/L	05/15/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Selenium, total	ND		1.50 ug/L	05/15/2016	[ ]	[ ]

059	[X] Substantially identical to outfall: 069	[X]							☐	☐
058	[X] Substantially identical to outfall: 069	[X]							☐	☐
057	[X] Substantially identical to outfall: 069	[X]							☐	☐
056	[X] Substantially identical to outfall: 069	☐							☐	☐
055	[X] Substantially identical to outfall: 069	☐							☐	☐
054	[X] Substantially identical to outfall: 069	☐							☐	☐
067	[X] Substantially identical to outfall: 069	[X]							☐	☐
068	[X] Substantially identical to outfall: 069	☐							☐	☐
060	[X] Substantially identical to outfall: 069	[X]							☐	☐
061	[X] Substantially identical to outfall: 069	☐							☐	☐

062	[X] Substantially identical to outfall: 069	☐							☐	☐
063	[X] Substantially identical to outfall: 069	☐							☐	☐
064	[X] Substantially identical to outfall: 069	☐							☐	☐

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.75 hours. Rainfall amount = 0.03 inches.

069: The impaired water pollutant total Aroclors was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for total Aroclors will be discontinued per Part 6.2.4.1. The average concentration of total Magnesium is mathematically certain to exceed the benchmark value.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 0 2.b. Rainfall amount (inches): 0.2 2.c. Time since previous measurable storm event (days): 14

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
073	[ ] Substantially identical to outfall:	[ ]	QBM	Chemical Oxygen Demand (COD)	463	mg/L		05/15/2016	[ ]	[ ]
073	[ ] Substantially identical to outfall:	[ ]	I	Copper, dissolved	32.5	ug/L		05/15/2016	[ ]	[ ]
073	[ ] Substantially identical to outfall:	[ ]	I	Thallium, dissolved	ND		0.450 ug/L	05/15/2016	[ ]	[ ]
074	[X] Substantially identical to outfall: 073	[ ]							[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.50 hours. Rainfall amount = 0.15 inches.

073: The impaired water pollutant dissolved Copper exceeds the New Mexico water quality standard. The impaired water pollutant dissolved Thallium was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for dissolved Thallium will be discontinued per Part 6.2.4.1.

G. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature: A R Grieggs Date 02/14/2016

E-mail: grieggst@lanl.gov

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

If yes, check which waiver you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted:

[ ] The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.

[X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

[X] Submitting monitoring data (Fill in all Sections).

[ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).

[ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).

[ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).

[ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

City: Los Alamos State: NM ZIP Code: 87545 -

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

First Name, Middle Initial, Last Name: Holly L. Wheeler

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

City: Los Alamos State: NM ZIP Code: 87545 -

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[X] Quarter 1: From	04	/ 01	To	05	/ 31
[ ] Quarter 2 (April 1 – June 30)	[ ] Quarter 2: From	06	/ 01	To	07	/ 31
[ ] Quarter 3 (July 1 – September 30)	[ ] Quarter 3: From	08	/ 01	To	09	/ 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10	/ 01	To	11	/ 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 0 2.b. Rainfall amount (inches): 0.1 2.c. Time since previous measurable storm event (days): 2

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
009	[ ] Substantially identical to outfall:	[ ]	I	Adjusted Gross Alpha	10.2	pCi/L		05/19/2016	[ ]	[ ]
009	[ ] Substantially identical to outfall:	[ ]	I	Aluminum, total recoverable	1190	ug/L		05/19/2016	[ ]	[ ]
009	[ ] Substantially identical to outfall:	[ ]	I	Aroclor, total	ND		0.0358 ug/L	05/19/2016	[ ]	[ ]
009	[ ] Substantially identical to outfall:	[ ]	QBM	Iron, total	2790	ug/L		05/19/2016	[ ]	[ ]
007	[X] Substantially identical to outfall: 009	[ ]							[ ]	[ ]
008	[X] Substantially identical to outfall: 009	[X]							[ ]	[ ]
010	[X] Substantially identical to outfall: 009	[X]							[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.50 hours. Rainfall amount = 0.08 inches.

009: The impaired water pollutant total recoverable Aluminum exceeds the New Mexico water quality standard. The impaired water pollutant total Aroclors was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for total Aroclors will be discontinued per Part 6.2.4.1.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 0 2.b. Rainfall amount (inches): 0.0 2.c. Time since previous measurable storm event (days): 2

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
050	[ ] Substantially identical to outfall:	[ ]	I	Adjusted Gross Alpha	1.91	pCi/L		05/19/2016	[ ]	[ ]
050	[ ] Substantially identical to outfall:	[ ]	I	Aroclor, total	ND		0.034 ug/L	05/19/2016	[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.17 hours. Rainfall amount = 0.02 inches.

050: The impaired water pollutant total Aroclors was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for total Aroclors will be discontinued per Part 6.2.4.1.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.1 2.c. Time since previous measurable storm event (days): 2

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
069	[ ] Substantially identical to outfall:	[ ]	QBM	Arsenic, dissolved	ND		1.70 ug/L	05/19/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Cadmium, dissolved	BQL		1.00 ug/L	05/19/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Lead, dissolved	ND		0.500 ug/L	05/19/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Silver, dissolved	ND		0.200 ug/L	05/19/2016	[ ]	[ ]
059	[X] Substantially identical to outfall: 069	[X]							[ ]	[ ]
058	[X] Substantially identical to outfall: 069	[ ]							[ ]	[ ]
057	[X] Substantially identical to outfall: 069	[ ]							[ ]	[ ]
056	[X] Substantially identical to outfall: 069	[X]							[ ]	[ ]

055	[X] Substantially identical to outfall: 069	[X]							☐	☐
054	[X] Substantially identical to outfall: 069	[X]							☐	☐
067	[X] Substantially identical to outfall: 069	[X]							☐	☐
068	[X] Substantially identical to outfall: 069	[X]							☐	☐
060	[X] Substantially identical to outfall: 069	[X]							☐	☐
061	[X] Substantially identical to outfall: 069	[X]							☐	☐
062	[X] Substantially identical to outfall: 069	[X]							☐	☐
063	[X] Substantially identical to outfall: 069	[X]							☐	☐
064	[X] Substantially identical to outfall: 069	[X]							☐	☐

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 1.50 hours. Rainfall amount = 0.10 inches.

G. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature: A R Grieggs Date 07/14/2016

E-mail: grieggst@lanl.gov

Environmental Protection & Compliance Division
Environmental Compliance Programs (EPC-CP)
PO Box 1663, K490
Los Alamos, New Mexico 87545
(505) 667-0666

Date: JUN 14 2017
Symbol: EPC-DO: 17-232
LA-UR: 17-24780
Locates Action No.: N/A

U.S. EPA Region 6
NPDES Stormwater Program (WQ-PP)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

To whom it may concern:

Subject: National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR053195, Multi-Sector General Permit (MSGP) Industrial Discharge Monitoring Reports (MDMRs) for April 01 and 04, 2017

Enclosed are Los Alamos National Laboratory's MDMRs (Enclosure 1) for April 01 and 04, 2017, as required under MSGP Permit Tracking No. NMR053195. These reports are being submitted on behalf of Los Alamos National Security LLC and contain analytical results for impaired waters and quarterly benchmark monitoring at outfalls 002, 005, 009, 022, 026, 032, 069, and 050.

Please contact Holly Wheeler at (505) 667-1312 or Terrill Lemke at (505) 665-2397 if you have questions regarding these MDMRs.

Sincerely,

Anthony R. Grieggs
Group Leader
Environmental Compliance Programs (EPC-CP)
Los Alamos National Security, LLC

ARG:TWL:HLW/eim

Enclosure: 1. NPDES Permit Tracking No. NMR053195, MDMRs for April 01 and 04, 2017

Cy: Helen Nguyen, EPA Region 6, Dallas TX (E-File)
Nasim Jahan, EPA Region 6, Dallas TX (E-File)
Michelle Hunter, NMED/GWQB, Santa Fe, NM (E-File)
Shelly Lemon, NMED/SWQB, Santa Fe, NM (E-File)
Craig S. Leasure, PADOPS, (E-File)
William R. Mairson, PADOPS, (E-File)
Michael T. Brandt, ADESH, (E-File)
Raeanna Sharp-Geiger, ADESH, (E-File)
Karen Armijo, NA-LA, (E-File)
Arturo Duran, EM-SG, (E-File)
David Rhodes, EM-SG, (E-File)
Bruce Robinson, ADEM-PO, (E-File)
Robert Stokes, DESHS-EWMS, (E-File)
Terrill W. Lemke, EPC-CP, (E-File)
Holly L. Wheeler, EPC-CP, (E-File)
Leslie J. Dale, EPC-CP, (E-File)
Ellena I. Martinez, EPC-CP, (E-File)
Adesh-records@lanl.gov, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)

ENCLOSURE 1

NPDES Permit Tracking No. NMR053195, MDMRs
for April 01 and 04, 2017

EPC-DO: 17-232

LA-UR-17-24780

Date: JUN 14 2017

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

If yes, check which waiver you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted:

[ ] The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.

[X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

[X] Submitting monitoring data (Fill in all Sections).

[ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).

[ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).

[ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).

[ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

City: Los Alamos State: NM ZIP Code: 87545 -

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

First Name, Middle Initial, Last Name: Holly L. Wheeler

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

City: Los Alamos State: NM ZIP Code: 87545 -

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[X] Quarter 1: From	04 / 01	To 05 / 31
[ ] Quarter 2 (April 1 – June 30)	[ ] Quarter 2: From	06 / 01	To 07 / 31
[ ] Quarter 3 (July 1 – September 30)	[ ] Quarter 3: From	08 / 01	To 09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01	To 11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information — Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 0 2.b. Rainfall amount (inches): 0.0 2.c. Time since previous measurable storm event (days): 3

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
009	[ ] Substantially identical to outfall:	[ ]	I	Adjusted Gross Alpha	9.55	pCi/L		04/01/2017	[ ]	[ ]
009	[ ] Substantially identical to outfall:	[ ]	I	Aluminum, total recoverable	2950	ug/L		04/01/2017	[ ]	[ ]
009	[ ] Substantially identical to outfall:	[ ]	I	Copper, dissolved	15.9	ug/L		04/01/2017	[ ]	[ ]
009	[ ] Substantially identical to outfall:	[ ]	QBM	Iron, total	3600	ug/L		04/01/2017	[ ]	[ ]
009	[ ] Substantially identical to outfall:	[ ]	I	Thallium, dissolved	ND		0.600 ug/L	04/01/2017	[ ]	[ ]
007	[X] Substantially identical to outfall: 009	[X]							[ ]	[ ]
008	[X] Substantially identical to outfall: 009	[X]							[ ]	[ ]
010	[X] Substantially identical to outfall: 009	[X]							[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.16 hours. Rainfall amount = 0.02 inches.

009: The impaired water pollutant total recoverable Aluminum exceeds the New Mexico water quality standard. The impaired water pollutant dissolved Copper exceeds the New Mexico water quality standard. The average concentration of total Iron is mathematically certain to exceed the benchmark value. The impaired water pollutant dissolved Thallium was not detected in stormwater discharge from this outfall, therefore annual monitoring will be discontinued per Part 6.2.4.1. Aroclor, total (I) - NODI B.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 0 2.b. Rainfall amount (inches): 0.0 2.c. Time since previous measurable storm event (days): 3

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
022	[ ] Substantially identical to outfall:	[ ]	I	Adjusted Gross Alpha	5.96	pCi/L		04/01/2017	[ ]	[ ]
022	[ ] Substantially identical to outfall:	[ ]	I	Aluminum, total recoverable	3210	ug/L		04/01/2017	[ ]	[ ]
022	[ ] Substantially identical to outfall:	[ ]	I	Copper, dissolved	16.9	ug/L		04/01/2017	[ ]	[ ]
021	[X] Substantially identical to outfall: 022	[X]							[ ]	[ ]
023	[X] Substantially identical to outfall: 022	[X]							[ ]	[ ]
024	[X] Substantially identical to outfall: 022	[X]							[ ]	[ ]
025	[X] Substantially identical to outfall: 022	[X]							[ ]	[ ]

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4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.16 hours. Rainfall amount = 0.02 inches.

022: The impaired water pollutant total recoverable Aluminum exceeds the New Mexico water quality standard. The impaired water pollutant dissolved Copper exceeds the New Mexico water quality standard. Aroclor, total (I) - NODI B. Thallium, dissolved (I) - NODI B.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 0 2.b. Rainfall amount (inches): 0.0 2.c. Time since previous measurable storm event (days): 3

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
026	[ ] Substantially identical to outfall:	[ ]	I	Aluminum, total recoverable	744	ug/L		04/01/2017	[ ]	[ ]
026	[ ] Substantially identical to outfall:	[ ]	I	Copper, dissolved	15.8	ug/L		04/01/2017	[ ]	[ ]
027	[X] Substantially identical to outfall: 026	[X]							[ ]	[ ]
028	[X] Substantially identical to outfall: 026	[X]							[ ]	[ ]

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4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.16 hours. Rainfall amount = 0.02 inches.

026: The impaired water pollutant total recoverable Aluminum exceeds the New Mexico water quality standard. The impaired water pollutant dissolved Copper exceeds the New Mexico water quality standard. Adjusted Gross Alpha (I) - NODI B. Aroclor, total (I) - NODI B. Thallium, dissolved (I) - NODI B.

G. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature: A R Grieggs Date 06/14/2017

E-mail: grieggst@lanl.gov

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

If yes, check which waiver you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted:

[ ] The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.

[X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

[X] Submitting monitoring data (Fill in all Sections).

[ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).

[ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).

[ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).

[ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

City: Los Alamos State: NM ZIP Code: 87545 -

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

First Name, Middle Initial, Last Name: Holly L. Wheeler

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

City: Los Alamos State: NM ZIP Code: 87545 -

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[X] Quarter 1: From	04 / 01	To	05 / 31
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[ ] Quarter 3 (July 1 – September 30)	[ ] Quarter 3: From	08 / 01	To	09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01	To	11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.2 2.c. Time since previous measurable storm event (days): 8

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
004	[ ] Substantially identical to outfall:	[ ]	QBM	Zinc, dissolved	20.5	ug/L		04/01/2017	[ ]	[ ]

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4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 1.50 hours. Rainfall amount = 0.18 inches.

004: The average of four monitoring values for dissolved Zinc does not exceed the benchmark value, therefore quarterly monitoring will be discontinued per Part 6.2.1.2.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.1 2.c. Time since previous measurable storm event (days): 3

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
032	[ ] Substantially identical to outfall:	[ ]	I	Adjusted Gross Alpha	2.29	pCi/L		04/01/2017	[ ]	[ ]
032	[ ] Substantially identical to outfall:	[ ]	I	Aluminum, total recoverable	5050	ug/L		04/01/2017	[ ]	[ ]
033	[X] Substantially identical to outfall: 032	[X]							[ ]	[ ]
034	[X] Substantially identical to outfall: 032	[X]							[ ]	[ ]
035	[X] Substantially identical to outfall: 032	[X]							[ ]	[ ]

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4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.91 hours. Rainfall amount = 0.14 inches.

032: The impaired water pollutant total recoverable Aluminum exceeds the New Mexico water quality standard. Aroclor, total (I) - NODI B. Thallium, dissolved (I) - NODI B.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 3 2.b. Rainfall amount (inches): 0.3 2.c. Time since previous measurable storm event (days): 1

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
069	[ ] Substantially identical to outfall:	[ ]	I	Aluminum, total recoverable	200	ug/L		04/01/2017	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Chemical Oxygen Demand (COD)	ND		8.95 mg/L	04/01/2017	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Magnesium, total	0.588	mg/L		04/01/2017	[ ]	[ ]
059	[X] Substantially identical to outfall: 069	[X]							[ ]	[ ]
058	[X] Substantially identical to outfall: 069	[X]							[ ]	[ ]
057	[X] Substantially identical to outfall: 069	[ ]							[ ]	[ ]
056	[X] Substantially identical to outfall: 069	[ ]							[ ]	[ ]
055	[X] Substantially identical to outfall: 069	[ ]							[ ]	[ ]

054	[X] Substantially identical to outfall: 069	☐							☐	☐
067	[X] Substantially identical to outfall: 069	☐							☐	☐
068	[X] Substantially identical to outfall: 069	[X]							☐	☐
060	[X] Substantially identical to outfall: 069	☐							☐	☐
061	[X] Substantially identical to outfall: 069	[X]							☐	☐
062	[X] Substantially identical to outfall: 069	☐							☐	☐
063	[X] Substantially identical to outfall: 069	☐							☐	☐
064	[X] Substantially identical to outfall: 069	☐							☐	☐

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4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 3.00 hours. Rainfall amount = 0.26 inches.

069: The average concentration of total Magnesium is mathematically certain to exceed the benchmark value. Ammonia, total (QBM) - NODI 9. Aroclor, total (I) - NODI B. Arsenic, dissolved (QBM) - NODI 9. Cadmium, dissolved (QBM) - NODI 9. Cyanide, total (QBM) - NODI 9. Lead, dissolved (QBM) - NODI 9. Mercury, total (QBM) - NODI 9. Selenium, total (QBM) - NODI 9. Silver, dissolved (QBM) - NODI 9.

G. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature: A R Grieggs Date 06/14/2017

E-mail: grieggst@lanl.gov

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

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[X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

[X] Submitting monitoring data (Fill in all Sections).

[ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).

[ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).

[ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).

[ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

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1. Operator Information

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Mailing Address:

Street: P.O. Box 1663, MS K490

City: Los Alamos State: NM ZIP Code: 87545 -

Phone: 505 667 0666

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2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

First Name, Middle Initial, Last Name: Holly L. Wheeler

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

City: Los Alamos State: NM ZIP Code: 87545 -

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E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[X] Quarter 1: From	04 / 01	To 05 / 31
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[ ] Quarter 3 (July 1 – September 30)	[ ] Quarter 3: From	08 / 01	To 09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01	To 11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: ☐ Rainfall (Complete line items 2.a., 2.b., & 2.c.) ☒ Snowmelt

2.a. Duration of the rainfall event (hours): 2.b. Rainfall amount (inches): 2.c. Time since previous measurable storm event (days):

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
002	☐ Substantially identical to outfall:	☐	I	Adjusted Gross Alpha	17.9	pCi/L		04/04/2017	☐	☐
002	☐ Substantially identical to outfall:	☐	QBM	Aluminum, total recoverable	371	ug/L		04/04/2017	☐	☐
002	☐ Substantially identical to outfall:	☐	I	Aluminum, total recoverable	371	ug/L		04/04/2017	☐	☐
002	☐ Substantially identical to outfall:	☐	I	Copper, dissolved	25.1	ug/L		04/04/2017	☐	☐
002	☐ Substantially identical to outfall:	☐	QBM	Iron, total	7370	ug/L		04/04/2017	☐	☐
002	☐ Substantially identical to outfall:	☐	QBM	Nitrate plus Nitrite Nitrogen	0.645	mg/L		04/04/2017	☐	☐
002	☐ Substantially identical to outfall:	☐	QBM	Zinc, dissolved	250	ug/L		04/04/2017	☐	☐

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4. Comment and/or Explanation of Any Violations (Reference all attachments here)

002: The impaired water pollutant Adjusted Gross Alpha exceeds the New Mexico water quality standard. The impaired water pollutant dissolved Copper exceeds the New Mexico water quality standard. The average concentration of total Iron is mathematically certain to exceed the benchmark value. Aroclor, total (I) - NODI B. Thallium, dissolved (I) - NODI B.

G. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature: A R Grieggs Date 06/14/2017

E-mail: grieggst@lanl.gov

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

If yes, check which waiver you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted:
- [ ] The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.
- [X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

- [X] Submitting monitoring data (Fill in all Sections).
- [ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).
- [ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).
- [ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).
- [ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

City: Los Alamos State: NM ZIP Code: 87545 -

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

First Name, Middle Initial, Last Name: Holly L. Wheeler

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

City: Los Alamos State: NM ZIP Code: 87545 -

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[X] Quarter 1: From	04 / 01	To 05 / 31
[ ] Quarter 2 (April 1 – June 30)	[ ] Quarter 2: From	06 / 01	To 07 / 31
[ ] Quarter 3 (July 1 – September 30)	[ ] Quarter 3: From	08 / 01	To 09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01	To 11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: ☐ Rainfall (Complete line items 2.a., 2.b., & 2.c.) ☒ Snowmelt

2.a. Duration of the rainfall event (hours): 2.b. Rainfall amount (inches): 2.c. Time since previous measurable storm event (days):

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
005	☐ Substantially identical to outfall:	☐	I	Adjusted Gross Alpha	26.9	pCi/L		04/04/2017	☐	☐
005	☐ Substantially identical to outfall:	☐	I	Aluminum, total recoverable	13000	ug/L		04/04/2017	☐	☐
005	☐ Substantially identical to outfall:	☐	I	Copper, dissolved	24.2	ug/L		04/04/2017	☐	☐
005	☐ Substantially identical to outfall:	☐	QBM	Iron, total	20700	ug/L		04/04/2017	☐	☐
006	☒ Substantially identical to outfall: 005	☒							☐	☐

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

005: The impaired water pollutant Adjusted Gross Alpha exceeds the New Mexico water quality standard. The impaired water pollutant total recoverable Aluminum exceeds the New Mexico water quality standard. The impaired water pollutant dissolved Copper exceeds the New Mexico water quality standard. The average concentration of total Iron is mathematically certain to exceed the benchmark value. Aroclor, total (I) - NODI B. Thallium, dissolved (I) - NODI B.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: ☐ Rainfall (Complete line items 2.a., 2.b., & 2.c.) ☒ Snowmelt

2.a. Duration of the rainfall event (hours): 2.b. Rainfall amount (inches): 2.c. Time since previous measurable storm event (days):

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
032	☐ Substantially identical to outfall:	☐	I	Copper, dissolved	6.05	ug/L		04/04/2017	☐	☐
033	☒ Substantially identical to outfall: 032	☐							☐	☐
034	☒ Substantially identical to outfall: 032	☒							☐	☐
035	☒ Substantially identical to outfall: 032	☒							☐	☐

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

032: The impaired water pollutant dissolved Copper exceeds the New Mexico water quality standard. Aroclor, total (I) - NODI B. Thallium, dissolved (I) - NODI B.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: ☐ Rainfall (Complete line items 2.a., 2.b., & 2.c.) ☒ Snowmelt

2.a. Duration of the rainfall event (hours): 2.b. Rainfall amount (inches): 2.c. Time since previous measurable storm event (days):

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
050	☐ Substantially identical to outfall:	☐	I	Adjusted Gross Alpha	4.03	pCi/L		04/04/2017	☐	☐
050	☐ Substantially identical to outfall:	☐	I	Aluminum, total recoverable	307	ug/L		04/04/2017	☐	☐
050	☐ Substantially identical to outfall:	☐	QBM	Chemical Oxygen Demand (COD)	ND		8.95 mg/L	04/04/2017	☐	☐
050	☐ Substantially identical to outfall:	☐	QBM	Magnesium, total	0.603	mg/L		04/04/2017	☐	☐

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

050: The average concentration of total Magnesium is mathematically certain to exceed the benchmark value. Ammonia, total (QBM) - NODI 9. Aroclor, total (I) - NODI B. Arsenic, dissolved (QBM) - NODI 9. Cadmium, dissolved (QBM) - NODI 9. Cyanide, total (QBM) - NODI 9. Lead, dissolved (QBM) - NODI 9. Mercury, total (QBM) - NODI 9. Selenium, total (QBM) - NODI 9. Silver, dissolved (QBM) - NODI 9.

G. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature: A R Grieggs Date 06/14/2017

E-mail: grieggst@lanl.gov

Permitted Facility: TA-60 Heavy Equipment Yard

Section 4.7 Monitoring Requirements

Outfall: 022 (60-HEY-2)

Outfall	Monitoring Requirement	Industrial Sector	Assessment Unit	Analyte	Filtered/ Unfiltered	Regulatory Standard	Units	Regulatory Standard Type	Regulatory Standard Reference
022	Impaired Waters	-	NM-9000.A_047	Total Aroclors	UF	0.2	ug/L	2007 EPA R6 MQL	20.6.4.900 NMAC Subpart J/ 20.6.4.12 NMAC Subpart E
	Impaired Waters	-	NM-9000.A_047	Al	F10u[1]	681	ug/L	NM 2010 Aquatic Chronic 60 mg	20.6.4.900 NMAC Subpart I
	Impaired Waters	-	NM-9000.A_047	Cu	F[2]	6	ug/L	NM 2010 Aquatic Chronic 60 mg	20.6.4.900 NMAC Subpart I
	Impaired Waters	-	NM-9000.A_047	Adjusted Gross Alpha	UF	15	pCi/L	NM 2010 Livestock Watering	20.6.4.900 NMAC Subpart J
	Impaired Waters	-	NM-9000.A_047	Tl	F	0.47	ug/L	NM 2010 HH Persistent	20.6.4.900 NMAC Subpart J
	Quarterly Benchmark	P	No Benchmark Monitoring Required						

[1]F10u – 10 µm filter

[2]F - 0.45 µm filter

Section 2.5 Sampling Data Summary

CY 2016

Monitored Outfall	Discontinue Monitoring		Continue Monitoring				
	Average of four monitoring values did not exceed benchmark; quarterly monitoring discontinued per Section 6.2.1.2	Impaired water constituent was not detected in storm water discharge; annual monitoring discontinued per Section 6.2.4.1.	Fewer than four quarterly samples have been collected in current sequence. Average concentration is not mathematically certain to exceed benchmark.	Average concentration mathematically certain to exceed benchmark.	Average of four quarterly monitoring values exceeded benchmark.	Impaired water constituent was detected, but did not exceed New Mexico Water Quality criterion	Impaired water constituent exceeded New Mexico Water Quality criterion.

022	N/A[1]	Total Aroclors, Tl	N/A	N/A	N/A	Adjusted Gross Alpha	Al, Cu

[1]N/A – No quarterly benchmark monitoring required.

CY 2017

Monitored Outfall	**Discontinue Monitoring**		**Continue Monitoring**				
	Average of four monitoring values did not exceed benchmark; quarterly monitoring discontinued per Section 6.2.1.2	Impaired water constituent was not detected in storm water discharge; annual monitoring discontinued per Section 6.2.4.1.	Fewer than four quarterly samples have been collected in current sequence. Average concentration is not mathematically certain to exceed benchmark.	Average concentration mathematically certain to exceed benchmark.	Average of four quarterly monitoring values exceeded benchmark.	Impaired water constituent was detected, but did not exceed New Mexico Water Quality criterion	Impaired water constituent exceeded New Mexico Water Quality criterion.
022	N/A[1]	—	N/A	N/A	N/A	Adjusted Gross Alpha	Al, Cu

[1]N/A – No quarterly benchmark monitoring required.

APPENDIX H1

Sampling Data from Previous Permit Term (MSGP 2008)

Heavy Equipment Shop Areas Stormwater Sampling Data 2009-2015

Location ID	Date Sampled	Parameter Name	Report Result	Report Units	Detected
60-0001	05/14/2010	Gross alpha	73.9	pCi/L	Y
60-0001	05/14/2010	Aroclor-1248	0.0354	ug/L	N
60-0001	05/14/2010	Aroclor-1232	0.0354	ug/L	N
60-0001	05/14/2010	Aroclor-1260	0.0354	ug/L	N
60-0001	05/14/2010	Aroclor-1254	0.0354	ug/L	N
60-0001	05/14/2010	Aroclor-1221	0.0354	ug/L	N
60-0001	05/14/2010	Aroclor-1262	0.0354	ug/L	N
60-0001	05/14/2010	Aroclor-1016	0.0354	ug/L	N
60-0001	05/14/2010	Aluminum	7320	ug/L	Y
60-0001	05/14/2010	Aroclor-1242	0.0354	ug/L	N
60-0001	05/14/2010	Mercury	0.073	ug/L	N
60-0001	08/13/2011	Copper	28.4	ug/L	Y
60-0001	04/26/2015	Thallium	0.45	ug/L	N

APPENDIX I

Records of Employee Training Related to the SWPPP

Los Alamos
National Laboratory

Training Course Information/Roster

Course Title: SWPPP Training TA-60-1			Course No.: —	Session No.: 1	New Course? ☐ Yes ☐ No
Course Dates to: 12/6/17	Time: 11:00 am	Contact Hours: —	Class Location: TA-60-1	Cost/Person: ⊖	P.O. No. (if any): ⊖
Instructor: J. Bursin	Training Specialist: —		Z #: 211081	Vendor: —	
Sponsoring Organization: LANS | DESTIS	No. Attendees:	Requirement Level Course: ☐ Lab-Wide ☐ Division ☐ Group ☑ Compliance-based Regulation/Requirement			
Course Description/ Comments:					

Course Category (check one)

- ☐ (A) Management/Supervisory Development
- ☑ (C) Facility/Site Specific
- ☐ (D) Orientation (Org. or Benefits)
- ☐ (E) LANL Processes & Procedures
- ☐ (F) Profession Specific & Technical
- ☐ (H) Safety
- ☐ (I) Health
- ☐ (J) Employee Development
- ☐ (K) Special Programs & Service
- ☐ (L) Off-site Training
- ☐ (N) Environmental
- ☐ (O) On-the-job
- ☐ (P) Emergency Response

Training Method: ☑ Live ☐ Video ☐ Computer-based ☐ Distance Learning ☐ Self Study ☐ Test

STUDENT ROSTER (Complete all requested information or use N/A if not applicable)
Personally Identifiable Information, i.e., Social Security Number, is not allowed

	Z Number	Name (Last, First, M.I.) Signature	Cost Center/Prog Code / Cost Acct/Work Pkg	Mail Stop / Phone	Group / Employer
	999888	Doe, John Q.	460700/ M352 H233/ K123	E538 5-2284	CIC-13 Butler
1	686263	Aguino, Brandy	/	7-5937	
2	309264	Locke, Ryan	/	K498	LANL
3	356591	Randy Mantey	/	K498	
4	244015	Justin Ted	/		
5			/		
6			/		
7			/		
8			/		
9			/		
10			/		
11			/		
12			/		

For additional names, go to Form 1651con.

Los Alamos
NATIONAL LABORATORY
EST.1943

Storm Water Multi-Sector General Permit (MSGP) for Industrial Facilities

TA-60-1 Heavy Equipment Shop

SWPPP Training

2017

UNCLASSIFIED

Operated by Los Alamos National Security, LLC for the U.S. Department of Energy's NNSA

NNSA
National Nuclear Security Administration

MSGP Permit

- The Multi-Sector General Permit is a National Pollutant Discharge Elimination System (NPDES) Permit associated with the Clean Water Act (CWA) of 1973
  - Regulates storm water discharges from industrial facilities/activities
  - Objective is to minimize pollutants to surface waters
  - A new permit (with no.) is issued approx. every 5 years
    - **2015 MSGP** #NMR053915 (LANS)
    - Link to 2015 MSGP: https://www.epa.gov/sites/production/files/2015-10/documents/msgp2015_finalpermit.pdf
- Requires implementation of a Stormwater Pollution Prevention Plan (SWPPP)
  - SWPPP team comprised of ESH and applicable facility personnel
  - Requires implementation of Control Measures or Best Management Practices (BMPs) to maintain water quality standards
  - Requires periodic inspections and sampling (monitoring)

MSGP Regulated Facilities at LANL

- **Metals Fab Shop** – TA-03-38: Sector AA (Fabricated Metal Products)
- **Carpenter Shop** – TA-03-38: Sector A (Timber Products)
- **Asphalt Batch Plant** – TA-60-233: Sector D (Asphalt Paving)
- **Metal Recycling Facility (MRF)** – TA-60-311: Sector N (Scrap Recycling)
- **Roads & Grounds** – TA-60-250: Sector P (Land Transportation/Warehousing)
- **Power Plant** – TA-03-1790: Sector O (Steam Electric Generating)
- **Heavy Equipment** – TA-60-01: Sector P (Land Transportation/Warehousing)
- **Salvage Yard** – TA-60-02: Sector P (Land Transportation/Warehousing)
- **TA-3-39 & 102** – Sector AA (Fabricated Metal Products)
- **Sigma Complex Foundry** – TA-03-66: Sector AA & F (Fabricated & Primary Metals)
- **TA-54 -** TA-54-Area G, Area L & Rant: Sector K (Hazardous Waste TSDF)
- **Maint. Facility West** – TA-54-Area L: Sector P (Land Transportation/Warehousing)

Best Management Practices (BMPs)

- **Structural**
  - Installation, maintenance, replacement
- **Non-Structural**
  - Written Procedures (i.e. SOPs)
  - Preventive Maintenance
  - Training
  - Pollution Prevention Practices

TA-60-1 HEY SWPPP
Best Management Practices (BMPs)

- Covered/Enclosed Material Storage:
  - Storing industrial materials indoors eliminates exposure to storm water.
  - Covered storage racks and roll-off bins minimize storm water contact with materials and pollutants.







TA-60-1 HEY SWPPP
Best Management Practices (BMPs)

- Good Housekeeping:
  - Covered and enclosed trash bins minimize debris on site. Periodic sweeping of parking lots can reduce sediment build-up.
  - YOU can help reduce trash as well: keep truck beds clean, properly dispose of food trash and cigarette butts, keep dumpsters closed. Recycle water bottles, cans, plastic bags, etc..









TA-60-1 HEY SWPPP
Best Management Practices (BMPs)

- Run-on/Run-off Erosion Control:
  - Berming and bmps such as gravel bags, wattles, rock check dams and ecoblocks can be used to divert run-on, dissipate run-off flow and minimize sediment transport and erosion.
  - Asphalt run-downs and rock-lined channels/gabions can be used for stabilized stormwater drainage and erosion control.







TA-60-1 HEY SWPPP
Best Management Practices (BMPs)

- Spill Protection:
  - Secondary containment units provide extra spill protection for oil-filled equipment, tanks and drums as well as chemicals and waste drums/containers.





  - Oil Water Separator (OWS):

Prevents oil/oily water from being discharged to the environment. Filters out oil from steam clean pad and repair bays.



TA-60-1 HEY SWPPP
Best Management Practices (BMPs)

- Spill Protection, Cont'd:
  - Petro Barriers: Filter out oils that may be discharged through stormwater from the upper east lot. Prevents releases to the environment.



- Spill Clean-Up Materials:
  - Spill kits/clean-up materials (such as Micro-Blaze, dry absorbents and pig pads) can be used to mitigate spills and prevent releases to the environment.

Micro-Blaze®
Emergency Liquid Spill Control





TA-60-1 HEY SWPPP Spill Control/Reporting

Know where spill clean-up materials are located in your work areas.

Spill contacts are provided in the LOG-MSS Guidance:





Los Alamos National Laboratory – LOG-MSS Guidance

Do you know who to call in the event of a spill/leak?

Spills and leaks from vehicles, equipment and laboratory operations can accidentally occur. Oil, fuel, hydraulic fluids and other chemicals, once spilled or leaked to the environment are pollutants that require immediate clean-up and spill reporting. It is important to prevent pollutants from entering into a watercourse or storm drain and from coming into contact with storm water. If you have the ability and materials to contain a spill (i.e. spill kit—absorbent pads, booms, etc.) you may do so in order to prevent migration of the spilled material until additional help arrives. You are still required to report the spill and should be aware of who to contact.

Report a Spill

SEO (EM&R):
667-6211
EPC-CP:
667-0666
or Spill Pager
664-7722
Roads & Grounds:
667-6111
WMCs Spill Pager:
664-5864
LOG-MSS DEP:
665-1893

The appropriate spill contact should be listed in your Integrated Work Document (IWD). This can vary from your PIC to the Security & Emergency Operations Center (SEO), also known as EM&R, to your site access control office. The name and contact information for your Waste Management Coordinator (WMC) should also be listed in the IWD.

When in doubt, contact the SEO. They will respond, assess the situation, determine further actions required and will contact appropriate personnel. The Environmental Protection & Compliance (EPC-CP) group will also be contacted. EPC-CP will ensure a Spill Report is completed to document the spill. If the pollutant has reached a watercourse or storm drain, EPC-CP is responsible for reporting the spill to the state environment department - NMED and EPA.

A WMC will ensure that waste from a spill clean-up is properly managed and disposed. The LOG-MSS or FOD Deployed Environmental Professional (DEP) can help coordinate spill response and clean-up activities and can complete the Spill Report form.

-Jillian Burgin, Deployed Environmental Professional for LOG-MSS

TA-60-1 HEY SWPPP Samplers & Outfalls

- Samplers
  - Automated collection during storm events
  - Monitoring for pollutants
    - Benchmark (sector specific limits, i.e. metals)
    - Impaired Waters (receiving water degradation)
- Storm Drains (Outfalls)
  - Sample/discharge points
  - Evaluated during inspections
  - Each numbered for site map

TA-60-1 has one monitored Outfall #022.





TA-60-1 HEY SWPPP Sampling (Monitoring)

- There are two types of monitoring:
  - **Benchmark (Quarterly)**
    - Monitors for sector-specific pollutants (i.e. metals)
  - **Impaired Waters (Annual)**
    - Monitors for pollutants associated with receiving water limits or impairments.

Sampling parameters TA-60-1 HEY

Monitoring Type	Location	Parameters		Numeric Limitations	Schedule
Benchmark	None required for Sector P				Quarterly
Impaired Waters	Sampler: MSGP02201 Outfall #022 Sandia Canyon	Aluminum		0.681 mg/L	Annual
		Gross Alpha, adjusted		15 pCi/L	
		Copper		0.006 mg/L	
		Thallium, dissolved		0.47 ug/L	
		PCB in Water Column		0.00064 ug/L	

TA-60-1 HEY SWPPP Inspections

- **Monthly Routine Inspections**
  - Performed by DEP/Facility Personnel, annual with EPC-CP
    - Check for non-compliance issues/identify corrective actions
      - (i.e. housekeeping, uncovered materials, spills/pollutant discharge, BMP integrity)
- **Quarterly Visual Inspections**
  - Performed during a storm event each quarter at each outfall (if possible)
    - Storm water sample collected in a clean, clear glass (at outfalls)
    - Storm water sample evaluated for potential pollutants
      - (i.e. odor, oil sheen, suspended particles)
    - Additional BMPs may be required if pollutants are evident
- **Additional Reporting Requirements**
  - Annual reporting to EPA for corrective action status
  - Quarterly Discharge Monitoring Report (DMR) for sample results
  - Spill reporting to EPC-CP and potentially NMED if reportable

TA-60-1 HEY SWPPP Corrective Actions

- **MSGP Corrective Action Process**
  - Once identified – immediate reporting to appropriate facility personnel
  - Entered into CARs database/main-con. for EPC-CP reporting/tracking
  - Specific deadlines for completion:
    - Same day or next day if identified late in the day or after regular business hours (quick fixes)
    - 14 days (order parts, schedule labor) >must provide schedule to EPC-CP
    - 45 days maximum (temporary BMPs required in the meantime)
    - >45 days: Report to EPC-CP for EPA is required (schedule must be provided for completion). EPA must approve schedule.
  - FSRs with cost codes may be required
  - Anyone can report – not just inspector or EPC-CP
  - Exceedances from sampling can trigger corrective actions, applicable to the same deadlines as noted above.

TA-60-1 HEY SWPPP Documentation

- **Required Documentation for SWPP Plan**
  - **Site Maps**
    - Facility Specific
    - Receiving Waters
    - Endangered Species
  - **Completed Inspection Forms & Templates**
  - **Annual Reporting Data**
  - **Notice of Intent (NOI) to EPA**
  - **Non-Storm Water Discharge Certification**
  - **Spill Tracking Table**
  - **Amendment Log**
  - **Sampling Results**
  - **Training Records**
  - **Critical Habitat Documentation/Historic Properties/NEPA**
  - **Procedures Referenced in the SWPPP**

TA-60-1 HEY SWPPP Location and Contacts

- Electronic versions of SWPP Plans can be found online on the public reading room at: http://permalink.lanl.gov/object/tr?what=info:lanl-repo/lareport/LA-UR-17-20928
- Hard copies are kept at MSGP sites or in DEPs office

- **Environmental Contacts:**
  - Jillian Burgin, DESHS-UIS, DEP: 665-1893
  - Leonard Sandoval, DESHS-UIS, DEP: 667-3557
  - Russell Stone, DESHS-UIS, ESH Mgr.: 606-0017
  - Holly Wheeler, EPC-CP: 667-1312

full roster of attendees available through the 800-DIV. Office

Agenda

Logistics Division Craft All Hands

Tuesday, May 3, 2016 8 – 10 am and Wednesday, May 4, 2016 1 -3 pm

- John Merhege, Logistics Division Leader
- Orlando Griego, Craft Safety Representative 5 minutes
  - Evacuation
  - Directors Video
- Larry Simmons, Principal Associate Director of Capital Projects (PADCAP) 15 minutes
- Kim Cassara, Associate Director for Project Management (ADPM) 5 minutes

1. Craft Wellness 20 minutes
   - Orlando Griego, Craft Safety Representative
   - Jamie Aslin and Cynthia Sandin of Occupational Safety and Health-Occupational Health (OSH-OH)
2. Multi-Sector General Permit (MSGP) 10 minutes
   - Terrill Lemke of Environmental Protection and Compliance – Compliance Programs (EPC-CP)
3. Radiological Control Awareness 10 minutes
   - Phil Romero of Deployed Environmental , Safety and Health Services –Construction, Projects and Craft Support (DESHS-CPCS)
4. Materials of Trade Training 15 minutes
   - Phil Romero/Jillian Burgin of Deployed Environmental , Safety and Health Services – Construction, Projects and Craft Support (DESHS-CPCS)
5. Fall Protection Training 20 minutes
   - Randy Sandoval and Thomas Crespin of Occupational Safety and Health-Industrial Safety & Hygiene (OSH-ISH)

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Storm Water Multi-Sector General Permit Compliance

Terrill Lemke
Environmental Protection & Compliance

Water Quality History

- Cuyahoga River, Ohio
- 40 years ago…
  - Two-thirds of America's lakes, rivers and coastal waters were unsafe for fishing and swimming.



Water Quality Facts & History

- Approximately 117 million people – one in three Americans – get drinking water from systems relying in part on streams, rivers or lakes.
- Annually approximately 1.2 trillion gallons of household, restaurant, and industrial sewage is dumped into US waters.
- 1 cup of oil can put a sheen on 1 surface acre of water.

- 1970 – Environmental Protection Agency founded
- 1973 – Clean Water Act
  - Restore and maintain quality of America's waters
  - Establish water quality laws & permits



Multi-Sector General Permit

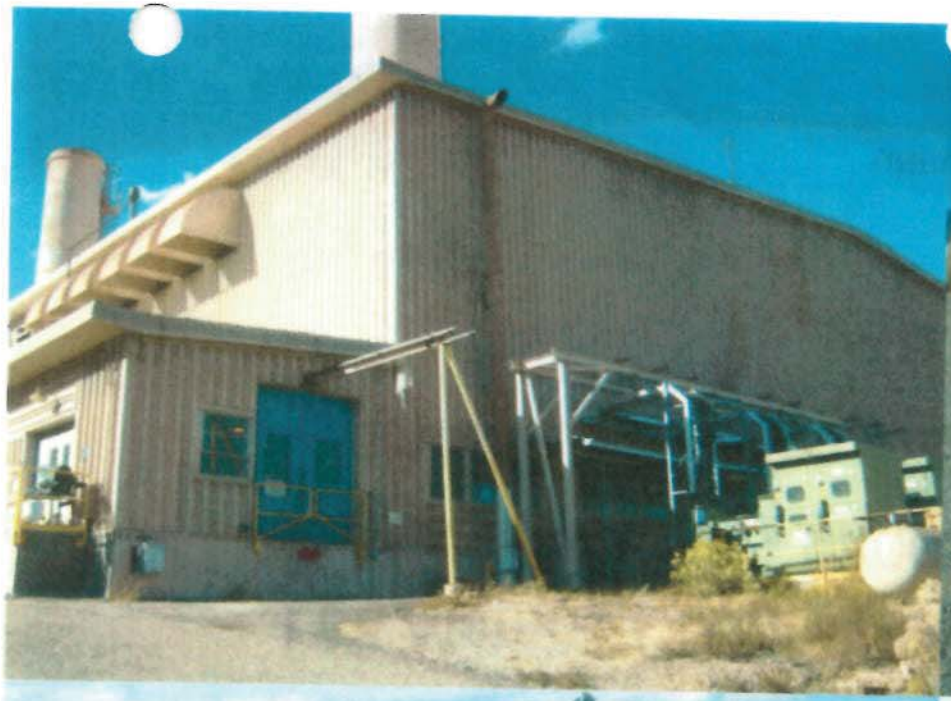
- EPA water quality permit
- Objective: minimize the discharge of pollutants to surface waters
- Regulates industrial activity (*Not only at LANL!)*
- At LANL:
  - Machine Shops
  - Asphalt Batch Plant
  - Power Plant
  - Material Recycling Facility
  - Roads & Grounds
  - Heavy Equipment Shop
  - TA-60 Warehouse
  - TA-54
  - Sigma Facility (TA-3-66)
  - Carpenter Shop (TA-3-38)

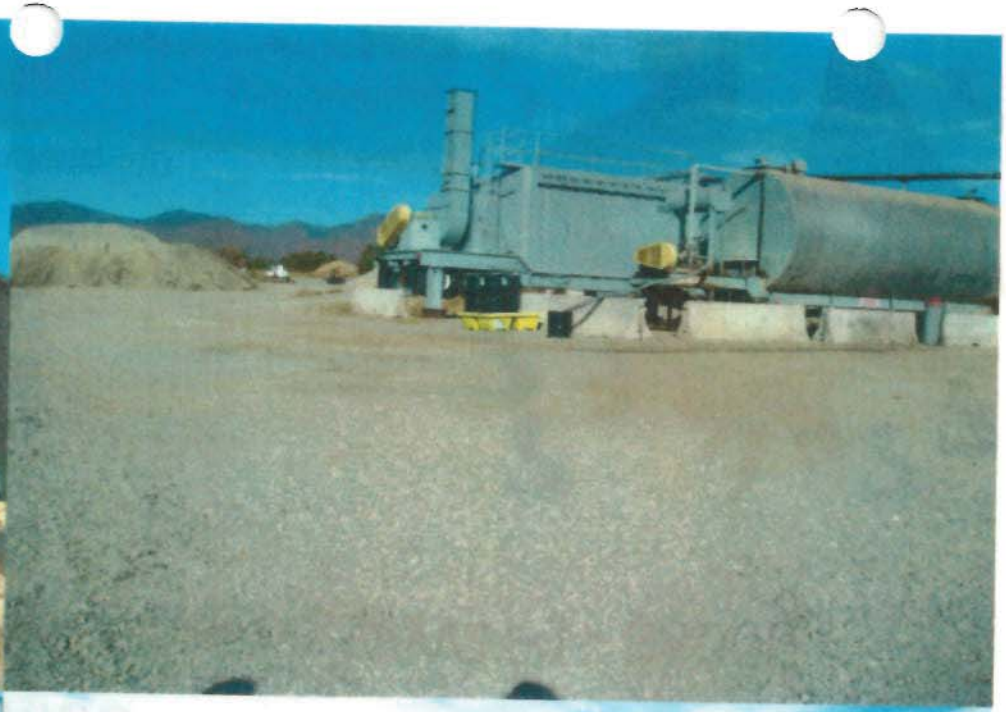
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Why Do We Care?

- Federal law
- Protect the environment
- Protect the reputation of LANL
- Potential fines & penalties
  - Los Alamos County (Bayo Canyon WWTP) - $6000
  - Santa Fe Airport - $4000
  - Walmart - $7 million



How Does This Impact You?

- MSGP facilities have specific:
  - Engineering controls
  - Administrative controls
  - Plans & procedures

- Be aware of controls and requirements



How Does This Impact You?

- Primary work related MSGP issues:
  - Housekeeping
  - Spills
  - Metal use/storage

- Think about how your work impacts storm water
- Your work affects MSGP compliance!




INSPECTION
Will
You
Pass?

Conclusion

- MSGP compliance must be part of your job!
  - Plan for it
  - Think about how your material & activities can affect storm water runoff

2015 MSGP Corrective Actions

Presented by
Terrill Lemke and Holly Wheeler

Environmental Protection Division
Compliance Programs (ENV-CP)

December 01, 2015

Agenda

- Definition of Corrective Action
- What triggers a corrective action
- Examples of issues requiring corrective actions
- Timeframes to address corrective actions
- 45 Day Extension
- Corrective action process
- Results of initial inspection
- Suggestions
- Expectations and questions
- Request for other topics

Corrective Action

Definition: “Any action taken, or required to be taken, to

(1) repair, modify, or replace any stormwater control used at the site;

(2) clean up and dispose of spills, releases, or other deposits found on the site;

(3) remedy a permit violation.

What Triggers A Corrective Action?

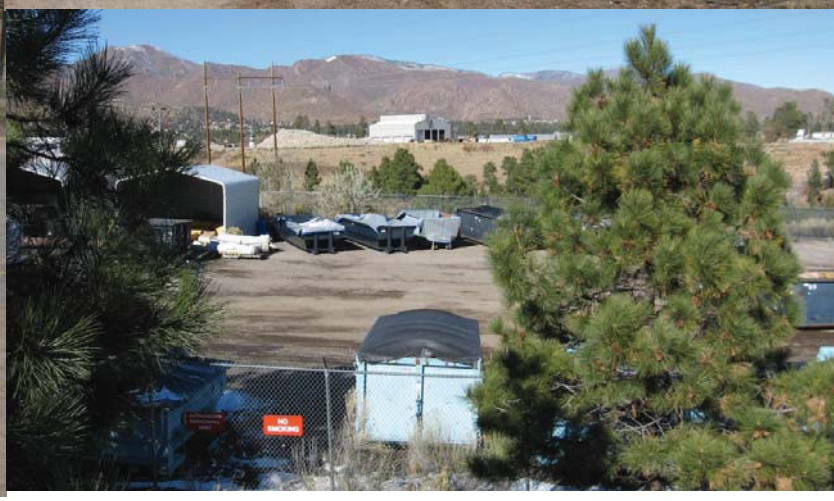
- Unauthorized release or discharge
- Discharge that violated a numeric effluent limit
- Control measures that are not stringent enough to ensure stormwater discharges meet Water Quality Standards.
  - These are the threshold values in your SWPPPs
- Visual assessment that shows evidence of stormwater pollution (e.g., color, odor, floating solids, settled solids, suspended solids, foam)
- Failure to meet any permit condition or those specified in the site specific SWPPP

Examples of Issues Requiring Corrective Action









Examples of Issues Requiring Corrective Action (continued)









Timeframes to address new corrective actions

- Shall *Immediately* take action upon identification of an issue
  - Immediately is the same day a condition is found
  - If found after 3:00 pm, action must be taken the next work day
- If follow-up action is needed – before the next storm event or within 14 calendar days
- If finalization of CA is *not feasible* within 14 days the following is required
  - Documentation of why it is not feasible to close the CA within this timeframe
  - A formal schedule for completion of the action A.S.A.P. but no longer than 45 days after discovery

45 Day Extension

- If a CA is expected to exceed the 45 day timeframe (as identified above) the DEP shall provide ENV-CP the following information
  - Rationale for an extension (e.g., a defensible position that does not put LANS at risk)
  - Provide a realistic completion date
  - Take the minimum additional time necessary to complete the corrective action.
- Where a corrective action results in a change to any control measure or procedure the SWPPP must be modified within 14 calendar days of the day the CA was closed.

Corrective Action Process

- Identification of an issue either during routine operations or during an inspection
  - Notify the Deployed Environmental Professional
  - Take immediate action
  - Record the issue and corrective action
    - Enter the issue into the MSGP Corrective Action Report (CAR) Database
    - Propose a completion date
    - System notifies FOD, DSESH Manager, and ENV-CP of new CA
  - Follow-up and completion of corrective action
    - Perform work and record completed activities and date of completion in the database
    - Database automatically sends e-mail notifications to key personnel every 30 days until corrective actions are closed (process may change/compress in the future)

Corrective Action Process (continued)

- Follow-up and completion of corrective action (continued)
  - If CA is expected to exceed 14 days, enter a schedule for completion in the database
  - At about day 30, ENV-CP will be contacting the DEP for the following information:
    - Rationale for a 45 day extension
    - Realistic completion date taking the minimum amount of time necessary
  - Letter will be sent to Region 6 EPA prior to the 45th day.
  - ENV-CP will track progress according to the schedule provided in the 45 day extension letter
  - If timeframes in the letter are exceeded, it is a permit non-compliance.

Results of initial inspection

- Started with 40 corrective actions with potential to exceed 45 day timeframe
- Corrective action initiated well into the 45-day period (not started immediately)
- Three CA's reported to Region 6 EPA with rationale and completion dates.
  - Took numerous phone calls and discussions up the management chain to the AD level to accomplish this
  - Not efficient use of resources
  - Must strive for proactivity, not reactivity
- One was closed within identified timeframe
- One has exceeded the completion date reported to EPA
- One must be addressed by this Friday
- EPA will consider the appropriateness and promptness of corrective action in determining enforcement response to permit violations

Suggestions for Improvements?

- How does the institution speed up the corrective action process?
  - Improve the FSR system?
    - Flag compliance driven work
    - Allow compliance driven work to move through system without cost code or automatically be assigned a specific cost code
  - Use Maintenance Connection to push out work order to DEPs with deadline and notification to managers
  - What are the barriers you face in taking immediate action and/or completing work within 14 days?
    - How do we improve this? Ideas?

Expectations

- Be timely and diligent in implementing 2015 MSGP requirements at your facilities
  - ***Plan ahead for budget & resources***
- Look for opportunities to streamline and improve processes
- Ask for help



Questions?

Requests for Other Topics?

ENV-CP

Training Topic: 2015 MSGP Corrective Action Training
Date: December 1, 2015
Place: TA-59-116-117
Training Called By: Sue Terp, ENV-ES DEP Monthly Meeting
Training Given By: Holly Wheeler and Terrill Lemke, ENV-CP

Name	Z#	Organization	Mail Stop	Phone	Cell	Pager
Stephen Cossey	122057	DSESH-TA55	K571	5-8893	500-6614	4-5791
David Paulson	193689	DSESH-LFO	H418	5-8884	930-7347	—
Sonya Cohen	296203	ENV-ES		5-8866	231-5385	—
Susan Terp	097044	ENV-ES	~~K478~~ J978	5-8889	—	—
Stephanie Hechmer	104588	DSESH-DO	K481	7-4774	695-0727	
Bill O'Neill	240098	DSESH-UI		412-5705 →		
Pattie Baucom	206967	DSESH-LFO	H418	7-3905		
Lauren Massengill	292621	DSESH-STO		7-2964		
Kari Schoenberg	243198	DSESH-STO		7-1623		
Marc Galleges	172470	DSESH-STO	[redacted]	5-9050	500-2466	—

Name	Z#	Organization	Mail Stop	Phone	Cell	Pager
Kelkenny Bilcen	178005	DSESH-WFO	C925	665-9306	699-0446	664-1296
Alethea Barnard	108243	ENV-CP	K-490	699-5836	699-5836	N/A
Holly Wheeler	118432	ENV-CP	K-490	7-1312	N/A	N/A
Terrill Lemke	120092	ENV-CP	K490	5-2397	699-0725	N/A

APPENDIX J

Corrective Action Reports
Documentation of Repairs & Maintenance of Control Measures

CAR #	Msgp Facility Cd	MSGP Facility Desc	Inspection Date	Specific Location	Inspector Name	Finding Category	Finding Category Description If Other	Problem Description	Inspection Type	Inspection Type Description If Other	Corrective Action Description	SIO	SIO Affected	Provide Action Taken at Affected SIOs	Swppp Modify	CA Initiate Date	CA Complete Date	Completed	CA Status Desc	EPA Notified Date (For ≥ 45 days)
1274	6	TA-60-1 Heavy Equipment Yard	12/19/2017 9:30	Lower lot of TA-60-1 Heavy Equipment Yard.	WHEELER HOLLY L	Control measures inadequate to meet non-numeric effluent limitations	-	At TA-60-1 Heavy Equipment Yard there is an oil stained rusted piece of equipment on a wooden pallet stored uncovered.	Routine facility inspection	-	Recycle, salvage or cover piece of equipment.	N	-	-	N	1/4/2018 0:00	1/19/2018 16:00	Y	Recycle, salvage or cover piece of equipment. The shop looked for tarps on the day of inspection 12/19/17 but they were out and wanted to order heavier tarps that will last longer. The heavy duty tarps were ordered on 1/04/18 however, the expected ship date was in Feb so the shop ordered locally sourced tarps in the meantime, which were installed on 1/19/18.	-
1273	6	TA-60-1 Heavy Equipment Yard	12/19/2017 9:30	Lower lot of TA-60-1 Heavy Equipment Yard.	WHEELER HOLLY L	Control measures inadequate to meet non-numeric effluent limitations	-	Rusted vehicle axles stored uncovered at TA-60-1 Heavy Equipment Yard.	Routine facility inspection	-	Cover, recycle or salvage the axles.	N	-	-	N	1/4/2018 0:00	1/19/2018 16:00	Y	Cover, recycle or salvage the axles. The shop looked for tarps on the day of inspection 12/19/17 but they were out and wanted to order heavier tarps that will last longer. The heavy duty tarps were ordered on 1/04/18 however, the expected ship date was in Feb so the shop ordered locally sourced tarps in the meantime, which were installed on 1/19/18.	-
1272	6	TA-60-1 Heavy Equipment Yard	12/19/2017 9:30	Lower lot at TA-60-1 Heavy Equipment Yard.	WHEELER HOLLY L	Control measures inadequate to meet non-numeric effluent limitations	-	Blades, metal pieces, diamond steel, rusted steel pipe and thick steel pieces were stored without cover in lower lot of TA-60-1 Heavy Equipment Yard.	Routine facility inspection	-	Cover blades, metal pieces and diamond steel.	N	-	-	N	1/4/2018 8:00	1/19/2018 16:00	Y	Cover blades, metal pieces and diamond steel. The shop looked for tarps on the day of inspection 12/19/17 but they were out and wanted to order heavier tarps that will last longer. The heavy duty tarps were ordered on 1/04/18 however, the expected ship date was in Feb so the shop ordered locally sourced tarps in the meantime, which were installed on 1/19/18.	-
1271	6	TA-60-1 Heavy Equipment Yard	12/19/2017 9:30	South of shed 60-314 at TA-60-1 Heavy Equipment Yard	WHEELER HOLLY L	Control measures inadequate to meet non-numeric effluent limitations	-	Rusted steal poles were stored uncovered south of shed 60-314 at TA-60-1 Heavy Equipment yard.	Routine facility inspection	-	Either cover, recycle or salvage the poles.	N	-	-	N	1/4/2018 8:00	1/19/2018 16:00	Y	Either cover, recycle or salvage the poles. The shop looked for tarps on the day of inspection 12/19/17 but they were out and wanted to order heavier tarps that will last longer. The heavy duty tarps were ordered on 1/04/18 however, the expected ship date was in Feb so the shop ordered locally sourced tarps in the meantime, which were installed on 1/19/18.	-
1270	6	TA-60-1 Heavy Equipment Yard	12/19/2017 9:30	South portion of upper yard at TA-60-1 Heavy Equipment Yard.	WHEELER HOLLY L	Control measures inadequate to meet non-numeric effluent limitations	-	Two uncovered roll-off bins at TA-60-1 Heavy Equipment Yard. One for tires and one for recycled metal.	Routine facility inspection	-	Roll-off bins need to be covered.	N	-	-	N	12/19/2017 10:00	############	Y	Roll-off bins need to be covered. *Bins were sent off to MRF on 12/20/17.	-
1269	6	TA-60-1 Heavy Equipment Yard	12/19/2017 9:30	East of TA-60-1.	WHEELER HOLLY L	Unauthorized release or discharge	-	Polaris 6 wheeler with leaking deicer at TA-60-1 Heavy Equipment Yard.	Routine facility inspection	-	Clean up the leak and fix leaking equipment.	N	-	-	N	12/19/2017 9:30	12/20/2017 0:00	Y	Clean up the leak and fix leaking equipment. *The equipment was repaired and leak cleaned up on 12/19/2017.	-
1268	6	TA-60-1 Heavy Equipment Yard	12/19/2017 9:30	East of TA-60-1 Heavy Equipment Yard	WHEELER HOLLY L	Unauthorized release or discharge	-	Numerous small oil spills throughout TA-60-1 Heavy Equipment Yard were evident.	Routine facility inspection	-	Clean up the spills and spray them with Micro-Blaze.	N	-	-	N	12/19/2017 0:00	12/20/2017 0:00	Y	Clean up the spills and spray them with Micro-Blaze. *All spill areas have been cleaned with MicroBlaze 12/20/2017.	-

1181	6	TA-60-1 Heavy Equipment Yard	9/20/2017 0:00	3 Areas Need Microblaze	BURGIN JILLIAN E	Unauthorized release or discharge	-	3 areas need clean-up with Microblaze or oil absorbent: 1) There is an empty oil drum in the secondary containment area on the SE side that looks like it seeped oil out of the top. 2) There was a portable Ingersoll Rand compressor outside of the bay next to the drum containment that was leaking an oily substance. 3) There was an oily spot in the parking area east of the yellow poly drum containment units.	Routine facility inspection	-	Areas listed need to be Microblazed or cleaned up with oil absorbent.	N	-	-	N	9/20/2017 0:00	9/20/2017 0:00	Y	Facility personnel were notified of corrective action shortly after inspection. The areas were Microblazed and cleaned up the same day as notification.	-
1167	6	TA-60-1 Heavy Equipment Yard	9/11/2017 0:00	Upper East Lot of Yard	BURGIN JILLIAN E	Unauthorized release or discharge	-	Approximately 50 gallons of water contained inside a tire from a piece of heavy equipment discharged when the tire was removed at the shop. Water can be added to heavy equipment tires to improve operational traction and stability, but the mechanics were unaware this tire contained any water. The water is believed to contain calcium chloride which can be added to the water to prevent freezing. There was also evidence of some particulates from inside the tire discharged with the water as well. The water flowed through the parking lot and reached the basecourse on the east side yard, but did not leave the site.	Other (describe) :	WMC Reported	Site personnel immediately used absorbent to contain the release and remove as much of the discharged liquid as possible. The top layer of the impacted soil/basecourse was also removed. Additionally, a street sweeper was brought on site to collect and remove as much of the particulates transported from the discharge in the parking lot as possible. The impacted asphalt was also Microblazed on 9/12/17.	N	-	-	Y	9/11/2017 0:00	9/12/2017 0:00	Y	Spill report was provided to EPC and will be documented in the SWPPP. Spill clean up was completed 9/11-9/12/17.	-
1150	6	TA-60-1 Heavy Equipment Yard	7/27/2017 0:00	Upper East Lot Above Outfall 022	BURGIN JILLIAN E	Control measures not properly operated or maintained	-	A rusty metal cage is in the runoff path above outfall.	Routine facility inspection	-	Remove the rusty cage from the area or cover.	N	-	-	N	7/27/2017 0:00	8/15/2017 0:00	Y	Reported to facility personnel at the time of inspection. Cage was moved 8/15/17.	-

1122	6	TA-60-1 Heavy Equipment Yard	6/15/2017 0:00	Outfall 022 at the TA-60 Heavy Equipment Yard	WHEELER HOLLY L	Other (describe) :	Impaired water quality standard exceedance.	Discharge from outfall 022 at the TA-60 Heavy Equipment Yard exceeded the New Mexico water quality standard for total recoverable Aluminum and dissolved Copper. This occurred during the storm event on 4/01/2017.	Other (describe) :	Impaired waters monitoring	Facility personnel must immediately take action to minimize off site discharge of total recoverable Aluminum and dissolved Copper at outfall 022 followed by implementation of specific follow-up actions within 14 days (if additional action is needed). If finalization of corrective action(s) exceeds 14 days, documentation of why it is infeasible to complete the corrective action within the 14 day timeframe must be provided along with a schedule for completion. Since outfall 022 has associated substantially identical outfalls (SIOs), facility personnel must also assess the need for corrective action for all related SIOs (outfalls 021, 023, 024 and 025). SWPPP modifications required as a result of this exceedance must be implemented within 14 days of completing corrective action	N	-	-	Y	6/15/2017 0:00	7/15/2017 0:00	Y	Facility personnel need to evaluate potential pollutant sources of total recoverable Aluminum and dissolved copper and implement additional controls to ensure discharge of these pollutants in stormwater is minimized. *6/16/17 - Recommendations were made to sweep HEY upper lot. Work was scheduled to be performed the week of 6/19 however, the sweeper broke down and is in the Heavy Equipment Shop awaiting parts for repairs. *7/5 - sweeper is still in HES for parts/repairs. *7/12 - sweeping is scheduled to be performed on Saturday, 7/15/17. *7/17 the sweeper broke down again on 7/14. Alternative BMPs were implemented on 7/15. metallox wattles were installed at edges of rock gabions in the outfall swale. The upper lot/discharge area of the outfall was cleaned out behind 60-1913 and metallox wattle was replaced.	-
1118	6	TA-60-1 Heavy Equipment Yard	6/14/2017 0:00	TA-60-1-0126 Storage Shed	BURGIN JILLIAN E	Control measures not properly operated or maintained	-	Grout filler is spilled on the ground outside of the storage shed TA-60-1-0126.	Routine facility inspection	-	Clean up grout filler spilled near the storage shed.	N	-	-	N	6/14/2017 0:00	6/16/2017 0:00	Y	CAR was reported to facility personnel at the time of inspection. C/A complete 6/16/17.	-
1110	6	TA-60-1 Heavy Equipment Yard	5/24/2017 0:00	South of Metal Roll-Off Bin	BURGIN JILLIAN E	Other (describe) :	Soil Staining	Orange soil staining (from rust) has occurred next to the metal roll-off bin in the lower east lot.	Routine facility inspection	-	Remove soil where soil staining has occurred.	N	-	-	N	5/24/2017 0:00	6/14/2017 0:00	Y	CAR was reported at the time of inspection. C/A was noted as done during routine inspection on 6/14/17 but was completed prior to this date.	-
1109	6	TA-60-1 Heavy Equipment Yard	5/24/2017 0:00	Outfall 023 Lower East Lot	BURGIN JILLIAN E	Control measures not properly operated or maintained	-	Gravel bag is torn at storm drain. Brush needs to be removed from around gravel bags and ecoblocks.	Routine facility inspection	-	Replace torn gravel bag on north side of drain. Clean out brush from gravel bags and ecoblocks.	N	-	-	N	5/24/2017 0:00	5/26/2017 0:00	Y	CAR was reported to facility personnel at the time of inspection. C/A completed 5/26/17.	-
1108	6	TA-60-1 Heavy Equipment Yard	5/24/2017 0:00	Metals Rack North of 60-330	BURGIN JILLIAN E	Control measures not properly operated or maintained	-	Tarp covering materials has come loose on the east side.	Routine facility inspection	-	Resecure tarp to cover materials.	N	-	-	N	5/24/2017 0:00	5/24/2017 0:00	Y	CAR was reported at the time of inspection. HEY personnel promptly secured the tarp after the CAR was reported.	-
1107	6	TA-60-1 Heavy Equipment Yard	5/24/2017 0:00	N Side of Trench Drain at East Lower Bay	BURGIN JILLIAN E	Unauthorized release or discharge	-	An oil spill was found on the lower bay area near the trench drain.	Routine facility inspection	-	Remediate the oil spill and impacted area.	N	-	-	N	5/24/2017 0:00	5/24/2017 0:00	Y	The CAR was reported at the time of inspection. HEY personnel cleaned up the oil spill immediately with floor dry absorbent and then applied MicroBlaze.	-

1104	6	TA-60-1 Heavy Equipment Yard	5/19/2017 0:00	Trench drain east of the high bay that drains to the oil water seperator at TA-60 HEY	WHEELER HOLLY L	Control measures not properly operated or maintained	-	East of the high bay at the TA-60 Heavy Equipment Yard, the trench drain that drains to an oil/water seperator was not draining during a precipitation event. This is an ongoing problem as this issue was previously identified on 3/22/2017 (see CAR #1067)	Other (describe) :	During monitoring after a storm event.	mDocumentation of actual maintenance done on the trench drain and oil/water seperator is required to close this corrective action. Part 2.1.2.3 of the MSGP indicates you must maintain all control measures that are used to achieve the effluent limits in this permit in effective operating condition, as well as all industrial equipment and systems, in order to minimize pollutant discharges. This includes performing inspections and preventative maintenance of stormwater drainage source controls, treatment systems, and plant equipment and systems that could fail and result in contamination of stormwater. Additional controls may need to be implemented until maintenance is complete to ensure that oil is not discharged into the drainage	N	-	-	Y	5/19/2017 0:00	6/5/2017 0:00	Y	Document action taken to complete repair/maintenance of the trench drain and associated oil/water seperator and modify the SWPPP to include a preventative maintenance schedule and procedure for the oil/water seperator and associated trench drain. Trench drain was cleaned out 5/26, clogged inlet pipe was jet-rodded and unplugged 5/31. Maintenance documentation finalized and added to SWPPP 6/5.	-
1094	6	TA-60-1 Heavy Equipment Yard	4/25/2017 0:00	Various Locations Throughout the Facility	BURGIN JILLIAN E	Control measures not properly operated or maintained	-	Housekeeping needed at various locations.	Routine facility inspection	-	Clean up trash on the SE perimeter of the facility, in the oil drum secondary containment unit SE of the building, and pick up materials on the ground around the metal roll-off bin in the lower east lot. Remove tarp from eastern drainage channel.	N	-	-	N	4/25/2017 0:00	5/5/2017 0:00	Y	CAR was reported to facility personnel at the time of inspection. C/A completed 5/5/17.	-
1093	6	TA-60-1 Heavy Equipment Yard	4/25/2017 0:00	Metal Rack North of 60-33 & Lower Southeast Lot	BURGIN JILLIAN E	Control measures not properly operated or maintained	-	Tarps have come undone at the metal storage rack near 60-33 and metals stored at the lower southeast lot. The tarp from the SE lot is in the drainage channel east of the facility.	Routine facility inspection	-	Replace/resituate tarps over materials.	N	-	-	N	4/25/2017 0:00	5/5/2017 0:00	Y	CAR was reported to facility personnel at the time of inspection. C/A completed 5/5/17.	-
1092	6	TA-60-1 Heavy Equipment Yard	4/25/2017 0:00	Asphalt Swale at Outfall 024	BURGIN JILLIAN E	Control measures not properly operated or maintained	-	The asphalt swale needs to be cleaned out.	Routine facility inspection	-	Clean out swale and around gravel bags. Restack current gravel bags and/or add new row of gravel bags.	N	-	-	N	4/25/2017 0:00	5/11/2017 0:00	Y	CAR reported to facility personnel at the time of inspection. An FSR and EXID will need to be placed for corrective action to be complete. This is expected to exceed 14 days. FSR 169927 was entered 5/5/17. C/A completed 5/11/17.	-

1085	6	TA-60-1 Heavy Equipment Yard	4/4/2017 0:00	OUtfall 024 at the TA-60 Heavy Equipment Yard	WHEELER HOLLY L	Unauthorized release or discharge	Sheen identified during a visual assessment	At 5:05 pm on April 4, 2017 a sheen was identified at outfall 024 during a visual assessment. Sleet and snow were prevalent throughout the afternoon.	Quarterly visual assessment	-	The sheen was rainbow colored and sticky. Likely an oil source.	N	-	-	N	4/4/2017 0:00	4/24/2017 0:00	Y	Facility personnel must identify and mitigate the source of the spill within 24 hours. The area was walked down on 4/5/17 and no specific oil spill was found. The shop bay area above the outfall was microblazed on 4/5/17 and again on 4/24/17 during the routine inspection. It is unknown if the oil sheen came from a release at the clogged trench drain on the northeast side of the shop. Facility personnel have not reported a release from that area. A release from the trench drain was not evident on 4/24/17 during the routine inspection. This outfall receives drainage from the entire lower west bay area as well as upper parking lots and the adjacent warehouse facility.	-
1070	6	TA-60-1 Heavy Equipment Yard	3/22/2017 0:00	Lower East Lot at Storm Drain Outfall #23	BURGIN JILLIAN E	Control measures not properly operated or maintained	-	A tarp had blown onto the storm drain at Outfall #023.	Routine facility inspection	-	Remove the tarp from the storm drain.	N	-	-	N	3/22/2017 0:00	3/27/2017 0:00	Y	CAR was reported at the time of inspection. Tarp was removed 3/27/17.	-
1069	6	TA-60-1 Heavy Equipment Yard	3/22/2017 0:00	Fuel Truck Parking Area Upper East Lot	BURGIN JILLIAN E	Control measures not properly operated or maintained	-	A few oil spots were noticed underneath the ethanol refueling truck E29904.	Routine facility inspection	-	Microblaze oil spots under truck.	N	-	-	N	3/22/2017 0:00	3/22/2017 0:00	Y	CAR was reported at the time of inspection and also noted on the SPCC inspection report. Area was microblazed on 3/22/17.	-
1068	6	TA-60-1 Heavy Equipment Yard	3/22/2017 0:00	Metal Roll-Off Bin Lower East Lot	BURGIN JILLIAN E	Control measures not properly operated or maintained	-	Metal and other materials are lying on the ground around the metal roll-off bin.	Routine facility inspection	-	Pick up and properly dispose of materials around the roll-off bin.	N	-	-	N	3/22/2017 0:00	3/27/2017 0:00	Y	CAR was reported at the time of inspection. Materials were removed 3/27/17.	-
1067	6	TA-60-1 Heavy Equipment Yard	3/22/2017 0:00	Trench Drain to OWS East of Shop	BURGIN JILLIAN E	Control measures not properly operated or maintained	-	The trench drain that discharges to the OWS is clogged.	Routine facility inspection	-	Pump excess standing water and/or unclog drain at OWS to prevent release. No vehicle washing will be performed until drain is unclogged.	N	-	-	N	3/22/2017 0:00	3/27/2017 0:00	Y	CAR reported at time of inspection. HEY personnel were already aware of the issue and working to get it resolved. 3/27/17- water had drained enough to not be an issue with potential rainfall. The amount of rainfall in the area over the weekend was ~0.12". The shop supervisor reported on 3/27 that there were no signs of a release over the weekend. DEP verified the water in the trench drain had subsided. A subcontract is in process to remove sludge from the OWS on a periodic basis. A berm was installed east of the trench drain to help retain water as an intermediate control measure. All vehicle washing has been stopped. Any oil spills near the trench drain will be immediately remediated.	-
1066	6	TA-60-1 Heavy Equipment Yard	3/22/2017 0:00	Secondary Containment Unit for Oil Drum Storage	BURGIN JILLIAN E	Control measures not properly operated or maintained	-	The lid on a drum of Chevron grease P/N 238011/873 was open and unsecured.	Routine facility inspection	-	Secure lid on grease drum.	N	-	-	N	3/22/2017 0:00	3/22/2017 0:00	Y	CAR reported at the time of inspection and also noted on the SPCC inspection report. The lid on drum was secured 3/22/17.	-
1065	6	TA-60-1 Heavy Equipment Yard	3/22/2017 0:00	Upper Lot SE Corner	BURGIN JILLIAN E	Control measures not properly operated or maintained	-	The center section of the asphalt berm [BMP# 6000403040028] that is located west of the storm drain is broken in half.	Routine facility inspection	-	Repair/replace asphalt berm.	N	-	-	N	3/22/2017 0:00	4/13/2017 0:00	Y	CAR was reported at the time of inspection. 3/27/17: an FSR has been placed to repair berm. The berm replacement was complete 4/13/17.	-

1028	6	TA-60-1 Heavy Equipment Yard	12/19/2016 0:00	TA-60 Heavy Equipment Yard lower lot	WHEELER HOLLY L	Control measures inadequate to meet non-numeric effluent limitations	-	The metal for recycle roll off bin was not covered in the lower lot of the TA-60 Heavy Equipment Yard. In addition, there were several pieces of metal equipment that should be evaluated as they were rusting and not covered. In addition, metal pieces and metal raw material were also not covered.	Routine facility inspection	-	Cover the metal for recycle roll off bin. The rusted Caterpiller steps and ladder by the metal recycle bin are to damaged to be usable. Recycle or dispose of them. There are also metal pieces and plastic grating(presumably from secondary containment) stored uncovered in the bushes by the tongue of the trailer (structure #60-8). Determine if the metal and plastic is still usable. If not, recyle or dispose. Cover the rusted blades and hook stored on the north side of the lower lot. The metal raw material stock needs to be covered on the far east side of the lower lot. There is a rusted piece of yellow equipment with rotted hoses on the far east end of the lot by the loader bucket and snow plow blades that does not look usable. Dispose of it or recycle it. There are several black pieces of metal on the far	N	-	-	N	12/19/2016 0:00	1/6/2017 0:00	Y	Cover the metal for recycle roll off bin. The rusted Caterpiller steps and ladder by the metal recycle bin are to damaged to be usable. Recycle or dispose of them. There are also metal pieces and plastic grating(presumably from secondary containment) stored uncovered in the bushes by the tongue of the trailer (structure #60-8). Determine if the metal and plastic are still usable. If not, recyle or dispose. Cover the rusted blades and hook stored on the north side of the lower lot. The metal raw material stock needs to be covered on the far east side of the lower lot. There is a rusted piece of yellow equipment with rotted hoses on the far east end of the lot by the loader bucket and snow plow blades that does not look usable. Dispose of it or recycle it. There are several black pieces of metal on the far east end of the lot and a Key Watcher metal box between structures #60-11 and 60-70 that need to be recycled. The trench boxes are in poor shape and the tarp is not fully covering them.	-
1027	6	TA-60-1 Heavy Equipment Yard	12/19/2016 0:00	TA-60 Heavy Equipment Yard, lower lot, roofers storage area.	WHEELER HOLLY L	Control measures inadequate to meet non-numeric effluent limitations	-	At the TA-60 Heavy Equipment Yard in the lower east yard, the roofers store some of their supplies. There is an uncovered metal storage rack in this area (between Structures #60-8 and 60-9. Also, there are apx. 50 empty 5 galllon plastic buckets that need to be disposed of.	Routine facility inspection	-	Dispose of the 5 gallon plastic buckets. Determine whether the metal in the storage rack between structures #60-8 and 60-9 is still usable. If it is product, it must be covered as a portion of it is rusted and in poor shape. If it is not usable, it should be recycled.	N	-	-	N	12/19/2016 0:00	1/4/2017 0:00	Y	Dispose of the 5 gallon plastic buckets. Determine whether the metal in the storage rack between structures #60-8 and 60-9 is still usable. If it is product, it must be covered as a portion of it is rusted and in poor shape. If it is not usable, it should be recycled. *Completed 1/4/17.	-
1026	6	TA-60-1 Heavy Equipment Yard	12/19/2016 0:00	Lower lot east of the TA-60 Heavy Equipment Yard	WHEELER HOLLY L	Control measures inadequate to meet non-numeric effluent limitations	-	At the TA-60 Heavy Equipment Yard, there were several small metal tanks (apx. 5 or 6) labelled as having once contained antifreeze, diesel, motor oil, etc. It appears that all tanks may be empty.	Routine facility inspection	-	Determine if the tanks are still usable or need to be recycled or disposed of.	N	-	-	N	12/19/2016 0:00	1/24/2017 0:00	Y	Determine if the tanks are still usable or need to be recycled or disposed of. *Disposal path determined 1/24/17.	-
1025	6	TA-60-1 Heavy Equipment Yard	12/19/2016 0:00	TA-60 Heavy Equipment Yard upper and lower lots.	WHEELER HOLLY L	Unauthorized release or discharge	-	At the TA-60 Heavy Equipment Yard in the upper and lower lot (in fromt of structure #60-0332) there were oil spills.	Routine facility inspection	-	Clean up the oil spill in front of structure #60-0332 and the small spill in the upper lot on the east side of TA-60-2.	N	-	-	N	12/19/2016 0:00	12/20/2016 0:00	Y	Clean up the oil spill in front of structure #60-0332 and the small spill in the upper lot on the east side of TA-60-2. *Corrective action was complete 12/20/16.	-
1024	6	TA-60-1 Heavy Equipment Yard	12/19/2016 0:00	TA-60 Heavy Equipment Yard east side by trench drain.	WHEELER HOLLY L	Control measures inadequate to meet non-numeric effluent limitations	-	On the east side of TA-60-1, there is a pump staged on a plastic tray that is full of ice and possibly oil. The oil covered pump and tray need to be moved inside the bay to melt so the tray can be emptied.	Routine facility inspection	-	Move the tray and oil covered pump into the bay to melt the ice/oil mixture so the contents can be send to the oil water separator. The tray is almost full and if left outside may overflow during the next storm event.	N	-	-	N	12/19/2016 0:00	12/19/2016 0:00	Y	Move the tray and oil covered pump into the bay to melt the ice/oil mixture so the contents can be send to the oil water separator. *Corrective action taken at the time of inspection.	-

1007	6	TA-60-1 Heavy Equipment Yard	12/14/2016 0:00	Front Middle Bay	BURGIN JILLIAN E	Unauthorized release or discharge	-	A John Deere 670 Grader was being taken into the shop for repairs when a valve broke, releasing 2-4 gallons of hydraulic fluid. The fluid leaked onto the asphalt - from the east vehicle staging area into the front middle bay - where the vehicle was taken for repairs.	Other (describe) :	Facility Personnel Reported	The spill was cleaned up immediately with Floor Dry absorbent and Microblaze, which was then containerized for disposal. DEP, WMC and EPC were notified. The vehicle is in the process of being repaired.	N	-	-	N	12/14/2016 0:00	12/14/2016 0:00	Y	*Corrective action was taken at the time of the spill.	-
1000	6	TA-60-1 Heavy Equipment Yard	11/9/2016 0:00	Upper East Lot	BURGIN JILLIAN E	Unauthorized release or discharge	-	A refueling truck (G82-01079) leaked approximately 1 gallon of diesel fuel onto the asphalt parking lot. The leak was caused by a faulty pump vent on the truck.	Other (describe) :	Heavy Equipment Shop Reported	Floor dry was applied to spill area. The refueling truck is in the process of being decomissioned since a new one has been put into service.	N	-	-	N	11/9/2016 0:00	11/9/2016 0:00	Y	The spill was cleaned up immediately. A spill reported was completed and provided to EPC.	-
997	6	TA-60-1 Heavy Equipment Yard	11/8/2016 0:00	Outfalls 021 and 022 at the TA-60 Heavy Equipment Yard	WHEELER HOLLY L	Unauthorized release or discharge	-	During a visual assessment conducted on 11/04/2016, flecks of a petroleum based pollutant caused a sheen in the sample collected at outfall 021 at the TA-60 Heavy Equipment Yard. Foam was present at outfalls 021 and 022. The sample was collected on 11/04/2016 at 12:08. The visual assessment was conducted on 11/04/2016 at 14:26.	Quarterly visual assessment	-	The site must be evaluated to identify the probable source of the observed sheen and foam. Facility personnel must immediately take action to prevent off site discharge of the pollutant at outfall 024 followed by implementation of specific follow-up actions within 14 days (if additional action is needed).	N	-	-	N	11/8/2016 0:00	11/23/2016 0:00	Y	The site must be evaluated to identify the probable source of the observed sheen and foam. Facility personnel must immediately take action to prevent off site discharge of the pollutant at outfall 024 followed by implementation of specific follow-up actions within 14 days (if additional action is needed). *11/09/2016: The area was walked down by EPC, DEP and HE Staff. It was determined that the Petro Plug filters had become torn during the recent storm and overloaded with sediment, which may have caused the oily sheen release. The filters will be replaced under FSR# 161565. The cause of the foam is uncertain and suspected to be natural occurring since there are no sources of detergents or other chemicals used in the area that would cause foam to be released in stormwater from the facility. *11/18/16: Email has been sent to Roads & Grounds to replace filters under FSR. Requesting work be performed week of 11/21/16. *11/23/16: Work completed by R&G.	-

996	6	TA-60-1 Heavy Equipment Yard	11/8/2016 0:00	Outfall 024 at the TA-60 Heavy Equipment Yard	WHEELER HOLLY L	Unauthorized release or discharge	-	During a visual assessment conducted on 11/04/2016, flecks of a petroleum based pollutant caused a sheen in the sample collected at outfall 024 at the TA-60 Heavy Equipment Yard. Foam was present in the sample as well. The sample was collected on 11/04/2016 at 12:04. The visual assessment was conducted at 11/04/2016 at 14:18.	Quarterly visual assessment	-	The site must be evaluated to identify the probable source of the observed sheen and foam. Facility personnel must immediately take action to prevent off site discharge of the pollutant at outfall 024 followed by implementation of specific follow-up actions within 14 days (if additional action is needed).	N	-	-	N	11/8/2016 0:00	11/8/2016 0:00	Y	The site must be evaluated to identify the probable source of the observed sheen and foam. Facility personnel must immediately take action to prevent off site discharge of the pollutant at outfall 024 followed by implementation of specific follow-up actions within 14 days (if additional action is needed). *11/08/16: The outfall and surrounding area were walked down. There was oil staining discovered outside of the northernmost lower bay located east of the outfall. The oil staining had originated from a piece of equipment that had been parked over the weekend. Shop personnel immediately sprayed the oil stained area with Microblaze.	-
992	6	TA-60-1 Heavy Equipment Yard	10/26/2016 0:00	Sheet Metal Racks at Lower East Lot	BURGIN JILLIAN E	Control measures not properly operated or maintained	-	A tarp covering the sheet metal rack has come loose.	Routine facility inspection	-	Resecure tarp over sheet metal rack.	N	-	-	N	10/26/2016 0:00	10/26/2016 0:00	Y	Reported corrective action at the time of inspection.	-
974	6	TA-60-1 Heavy Equipment Yard	9/20/2016 0:00	Upper East Vehicle Lot	BURGIN JILLIAN E	Unauthorized release or discharge	-	A diesel fuel leak occurred from a personnel security mobile testing unit [GOV# E29922] that was waiting for repairs.	Other (describe) :	Heavy Equipment Shop Personnel	The parking lot area where the fuel leak occurred needs to be cleaned-up. Vehicle fuel tank needs repair.	N	-	-	N	9/20/2016 0:00	9/20/2016 0:00	Y	The leaked diesel fuel (approximately 1/2 gallon) was cleaned up immediately with floor dry absorbent and the vehicle was taken into the shop for repairs. A spill report was submitted to EPC on 9/21/16.	-
964	6	TA-60-1 Heavy Equipment Yard	9/7/2016 0:00	Outfall 024 at the TA-60-1 Heavy Equipment Yard	WHEELER HOLLY L	Unauthorized release or discharge	-	During a visual assessment conducted on September 7, 2016 at 11:10, a sheen with a petroleum odor was documented from a sample collected at outfall 024 at the TA-60-1 Heavy Equipment Yard. The sample was collected during the storm event on September 6, 2016 at apx. 17:04.	Quarterly visual assessment	-	The source of the sheen must be identified immediately and control measures to prevent further discharge of the pollutant causing the sheen much also be put in place immediately. If implementation of specific follow-up actions are needed, they must be completed within 14 days. If finalization of corrective action(s) exceeds 14 days, documentation of why it is infeasible to complete the corrective action within the 14 day timeframe must be provided along with a schedule for completion. Since outfall 024 has associated substantially identical outfalls (SIOs), the facility must assess the need for corrective action for all related SIOs (outfalls 021, 022, 023 and 025). SWPPP modifications, if necessary as a result of this sheen, must be implemented within 14 days of	N	-	-	N	9/7/2016 0:00	9/16/2016 0:00	Y	On 9/1/2016 approximately 1.5 gallons of hydraulic fluid spilled onto asphalt from a broken hydraulic line on a forkift on the north side of TA-60 building 2 Warehouse and is believed to be the source of the sheen. EO and HAZMAT responded to the spill and as part of the clean-up applied oil sponge and micro-blaze to the impacted area.	-

952	6	TA-60-1 Heavy Equipment Yard	8/4/2016 0:00	Outfall 022 at the TA-60-1 Heavy Equipment Yard	WHEELER HOLLY L	Other (describe) :	Impaired water quality standard exceedance	Discharge from outfall 022 at the TA-60-1 Heavy Equipment Yard exceeded the New Mexico water quality standard for total recoverable Aluminum. This occurred during the storm event on 06/04/2016.	Other (describe) :	Impaired water monitoring	The facility must immediately take action to minimize off site discharge of total recoverable Aluminum at outfall 022 followed by implementation of specific follow-up actions within 14 days (if additional action is needed). If finalization of corrective action(s) exceeds 14 days, documentation of why it is infeasible to complete the corrective action within the 14 day timeframe must be provided along with a schedule for completion. Since outfall 022 has associated substantially identical outfalls (SIOs), the facility must assess the need for corrective action for all related SIOs (i.e., outfalls 021, 023, 024 and 025). SWPPP modifications required as a result of this exceedance must be implemented within 14 days of completing corrective action work.	N	-	-	Y	8/4/2016 0:00	8/5/2016 0:00	Y	The facility needs to evaluate potential pollutant sources of total recoverable Aluminum and implement additional controls to ensure discharge of this pollutant source in stormwater is minimized. Metal loxx has been installed.	-
950	6	TA-60-1 Heavy Equipment Yard	8/3/2016 0:00	Lower lot, East of main building	HEINTSCHEL CLIFF L	Control measures inadequate to meet applicable water quality standards	-	Torn gravel bags need to be replaced	Routine facility inspection	-	Bags were replaced same day.	N	-	-	N	8/3/2016 0:00	8/3/2016 0:00	Y	Gravel bags replaced. CA closed	-
939	6	TA-60-1 Heavy Equipment Yard	7/21/2016 0:00	Yard east of the main building.	HEINTSCHEL CLIFF L	Control measures inadequate to meet applicable water quality standards	-	At the TA-60 Heavy Equipment Yard, housekeeping is needed. Discard old tarps and pick up trash.	Routine facility inspection	-	Housekeeping efforts completed.	N	-	-	N	7/21/2016 0:00	7/21/2016 0:00	Y	N/A	-
938	6	TA-60-1 Heavy Equipment Yard	7/21/2016 0:00	Yard east of the main building.	HEINTSCHEL CLIFF L	Control measures inadequate to meet applicable water quality standards	-	Tarps need to be repositioned on metal storage at the TA-60 Heavy Equipment Yard.	Routine facility inspection	-	Tarps were repositioned onto metal storage.	N	-	-	N	7/21/2016 0:00	7/21/2016 0:00	Y	N/A	-
937	6	TA-60-1 Heavy Equipment Yard	7/21/2016 0:00	Yard east of the main building.	HEINTSCHEL CLIFF L	Control measures inadequate to meet applicable water quality standards	-	At the TA-60 Heavy Equipment Yard, several gravel bags at the drain in the lower lot need to be replaced.	Routine facility inspection	-	The gravel bags were replaced.	N	-	-	N	7/21/2016 0:00	7/25/2016 0:00	Y	N/A	-

932	6	TA-60-1 Heavy Equipment Yard	7/14/2016 0:00	Outfall 022 at the TA-60 Heavy Equipment Yard	WHEELER HOLLY L	Other (describe) :	Impaired water quality standard exceedance	Discharge from outfall 022 at the TA-60 Heavy Equipment Yard exceeded the New Mexico water quality standard for dissolved Copper. This occurred during the storm event on 5/15/2016.	Other (describe) :	Impaired waters monitoring	The facility must immediately take action to minimize off site discharge of the dissolved Copper at outfall 022 followed by implementation of specific follow-up actions within 14 days (if additional action is needed). If finalization of corrective action(s) exceeds 14 days, documentation of why it is infeasible to complete the corrective action within the 14 day timeframe must be provided along with a schedule for completion. Since outfall 022 has associated substantially identical outfalls (SIOs), the facility must assess the need for corrective action for all related SIOs (i.e., outfalls 021, 023, 024 and 025). SWPPP modifications required as a result of this exceedance must be implemented within 14 days of completing corrective action work.	N	-	-	Y	7/14/2016 0:00	8/5/2016 0:00	Y	N/A	-
918	6	TA-60-1 Heavy Equipment Yard	6/15/2016 0:00	Storage area, lower lot.	HEINTSCHEL CLIFF L	Control measures not properly operated or maintained	-	Truck awaiting maintenance was parked in lower lot adjacent to storm drain. Vehicles are not to be stored on lower lot.	Routine facility inspection	-	Discussed with Tim Walker Foster. He had unit moved to upper storage.	N	-	-	N	6/15/2016 0:00	6/15/2016 0:00	Y	Corrective action complete.	-
917	6	TA-60-1 Heavy Equipment Yard	6/15/2016 0:00	Equipment staging area, upper lot, E of main building	HEINTSCHEL CLIFF L	Control measures not properly operated or maintained	-	Truck awaiting maintenance had large oil spot underneath.	Routine facility inspection	-	Large oil spot under truck had not been addressed. Had Tim Walker Foster bring crew that had been working on unit to the unit to discuss. Made sure everyone was aware of proper procedures. Spot was addressed and cleaned.	N	-	-	N	6/15/2016 0:00	6/15/2016 0:00	Y	Corrective action completed. Spill report sent to water quality.	-
916	6	TA-60-1 Heavy Equipment Yard	6/15/2016 0:00	Lower lot storage area	HEINTSCHEL CLIFF L	Control measures not properly operated or maintained	-	Wind had blown tarps off some metal storage.	Routine facility inspection	-	Repositioned tarps	N	-	-	N	6/15/2016 0:00	6/15/2016 0:00	Y	Corrective action completed	-
912	6	TA-60-1 Heavy Equipment Yard	6/13/2016 0:00	Storm Drain on upper lot	HEINTSCHEL CLIFF L	Control measures inadequate to meet applicable water quality standards	-	Filters in storm drain need to be replaced. Drain needs to be cleaned.	Other (describe) :	Rain water pooled	Pulled out old filters and cleaned area. Covered drain. Issued FSR to R&G to clean drain. Ordered filters for drain. Filters have been installed	N	-	-	N	6/13/2016 0:00	7/1/2016 0:00	Y	N/A	-
911	6	TA-60-1 Heavy Equipment Yard	5/17/2016 0:00	Various oil spots on asphalt	HEINTSCHEL CLIFF L	Control measures not properly operated or maintained	-	Leaky vehicles	Routine facility inspection	-	Need to microblaze oil spots	N	-	-	N	5/17/2016 0:00	5/17/2016 0:00	Y	Corrective action completed.	-
910	6	TA-60-1 Heavy Equipment Yard	5/17/2016 0:00	East lower lot	HEINTSCHEL CLIFF L	Control measures not properly operated or maintained	-	Wind had blown tarps off some metals	Routine facility inspection	-	Reposition tarps	N	-	-	N	5/17/2016 0:00	5/18/2016 0:00	Y	Will reposition tarps when 'tarp person' gets back to shop.	-
909	6	TA-60-1 Heavy Equipment Yard	5/17/2016 0:00	Metal dumpster on lower lot	HEINTSCHEL CLIFF L	Control measures not properly operated or maintained	-	Metal dumpster is full and needs to be replaced	Routine facility inspection	-	Justin Teo will make call to replace dumpster.	N	-	-	N	5/17/2016 0:00	5/17/2016 0:00	Y	Metal dumpster replaced.	-

907	6	TA-60-1 Heavy Equipment Yard	5/17/2016 0:00	Waste storage area, East of main building	HEINTSCHEL CLIFF L	Control measures not properly operated or maintained	-	Empty 55 gallon drum was not labeled.	Routine facility inspection	-	Place 'empty' label on drum	N	-	-	N	5/17/2016 0:00	5/17/2016 0:00	Y	Drum was properly labeled.	-
897	6	TA-60-1 Heavy Equipment Yard	4/15/2016 0:00	Asphalt area around shop parking; east side	HEINTSCHEL CLIFF L	Control measures not properly operated or maintained	-	Several oil spots need to be cleaned/micro blazed	Routine facility inspection	-	Clean; micro blaze oil spots	N	-	-	N	4/15/2016 0:00	4/15/2016 0:00	Y	Spots cleaned and micro blazed. Close CA	-
896	6	TA-60-1 Heavy Equipment Yard	4/15/2016 0:00	East in lower lot	HEINTSCHEL CLIFF L	Control measures inadequate to meet applicable water quality standards	-	Need to clean sediment from in front of gravel bags	Routine facility inspection	-	Cleaned sediment	N	-	-	N	4/15/2016 0:00	4/15/2016 0:00	Y	Completed/closed	-
890	6	TA-60-1 Heavy Equipment Yard	3/11/2016 0:00	Heavy Equipment Yard	HEINTSCHEL CLIFF L	Control measures not properly operated or maintained	-	Several oil spots need to be cleaned up and microblazed.	Routine facility inspection	-	Resupplied shop person with needed microblaze. Spots will be microblazed.	N	-	-	N	3/11/2016 0:00	3/11/2016 0:00	Y	Discussed with Justin Teo and Shop persons. Corrective Action item was resolved and CA closed	-
889	6	TA-60-1 Heavy Equipment Yard	3/11/2016 0:00	Heavy Equipment Storage Yard	HEINTSCHEL CLIFF L	Control measures not properly operated or maintained	-	Yard needs a Housekeeping walk down. Mainly waste lumber and wooden palets.	Routine facility inspection	-	Discussed with Justin Teo. Assigned individual to walk site and resolve housekeeping issues.	N	-	-	N	3/11/2016 0:00	3/11/2016 0:00	Y	Housekeeping walkdown performed. Waste wood stacked in area, waiting for salvage.	-
888	6	TA-60-1 Heavy Equipment Yard	3/11/2016 0:00	Heavy Equipment Storage Yard	HEINTSCHEL CLIFF L	Control measures not properly operated or maintained	-	Tarps need to be placed on stored metals	Routine facility inspection	-	Overall, tarps look very good on major items. Several single smaller items need to be covered.	N	-	-	N	3/11/2016 0:00	11-MAR-0016 00:00	Y	Discussed with Justin Teo. Correction Action resolved and closed.	-
878	6	TA-60-1 Heavy Equipment Yard	2/18/2016 0:00	E of Main Facility @ TA 60-1	HEINTSCHEL CLIFF L	Control measures not properly operated or maintained	-	Wind had blown tarp off metal storage rack	Routine facility inspection	-	Discussed with Justin Teo and tarp replaced on the spot.	N	-	-	N	2/18/2016 0:00	2/18/2016 0:00	Y	Corrective action completed and closed	-
877	6	TA-60-1 Heavy Equipment Yard	2/18/2016 0:00	Concrete pad just E of Main facility @ TA 60-1	HEINTSCHEL CLIFF L	Other (describe) :	Salvage metal with oil lines exposed	Salvage material with oil lines exposed to the environment. Potential for oil runoff	Routine facility inspection	-	Discussed with Justin Teo. Materials were placed in dumpster.	N	-	-	N	2/18/2016 0:00	2/18/2016 0:00	Y	Corrective action completed and closed	-
876	6	TA-60-1 Heavy Equipment Yard	2/18/2016 0:00	Secondary containment area just E of main facility @ TA60-1	HEINTSCHEL CLIFF L	Other (describe) :	New 55 gallon drum not in secondary containment	Drum should be in secondary containment	Routine facility inspection	-	Discussed with Justin Teo and drum placed in secondary containment	N	-	-	N	2/18/2016 0:00	2/18/2016 0:00	Y	Corrective action corrected and closed	-
875	6	TA-60-1 Heavy Equipment Yard	2/18/2016 0:00	TA 60-1 Lower Lot	HEINTSCHEL CLIFF L	Other (describe) :	Exposed metal not in metal dumpster	Waste metals had been placed next to the dumpster and should be in the dumpster	Routine facility inspection	-	Metal was placed in dumpster.	N	-	-	N	2/18/2016 0:00	2/18/2016 0:00	Y	Corrective action completed	-
870	6	TA-60-1 Heavy Equipment Yard	1/27/2016 0:00	Throughout facility	HEINTSCHEL CLIFF L	Control measures not properly operated or maintained	-	At the TA-60 Heavy Equipment Yard, wind storms have blown tarps off metal.	Routine facility inspection	-	Discussed with shop folks. Tarps to be replaced.	N	-	-	N	1/27/2016 0:00	2/3/2016 0:00	Y	Shop folks have been informed to replace tarps. Very busy, but they will do it. Tarps replaced.	-
869	6	TA-60-1 Heavy Equipment Yard	1/27/2016 0:00	Heavy Vehicle park area West of shop	HEINTSCHEL CLIFF L	Control measures inadequate to meet non-numeric effluent limitations	Housekeeping issue	At the TA-60 Heavy Equipment Yard, a trash dumpster was located West of the shop and not dumped on a regular basis. Need to remove and not replace the dumpster.	Routine facility inspection	-	Discussed with shop folks. They made phone calls on the spot and requested dumpster be removed.	N	-	-	N	1/27/2016 0:00	2/3/2016 0:00	Y	Phone call was made to remove dumpster. Waiting on response. Dumpster removed.	-
868	6	TA-60-1 Heavy Equipment Yard	1/27/2016 0:00	Secondary Containment for drums East of shop	HEINTSCHEL CLIFF L	Control measures inadequate to meet non-numeric effluent limitations	-	At the TA-60 Heavy Equipment Yard, a 55 gallon drum of hydraulic fluid was located outside the secondary containment.	Routine facility inspection	-	Discussed with maintenance persons. They placed drum back in secondary containment	N	-	-	N	1/27/2016 0:00	1/27/2016 0:00	Y	Drum was placed back in secondary containment.	-
867	6	TA-60-1 Heavy Equipment Yard	11/20/2015 0:00	Metal dumpster on lower lot, on East side	HEINTSCHEL CLIFF L	Control measures inadequate to meet non-numeric effluent limitations	-	At the TA-60 Heavy Equipment Yard, the metal dumpster does not have a cover.	Routine facility inspection	-	Obtained cover.	N	-	-	N	11/20/2015 0:00	11/22/2015 0:00	Y	N/A	-

866	6	TA-60-1 Heavy Equipment Yard	10/22/2015 0:00	Upper and Lower lot on East side	HEINTSCHEL CLIFF L	Control measures inadequate to meet non-numeric effluent limitations	-	At the TA-60 Heavy Equipment Yard, snow plow blades are located in several locations. Need to consolidated and covered.	Routine facility inspection	-	Need to consolidate blades in central locations so that they can be managed.	N	-	-	N	10/22/2015 0:00	12/11/2015 0:00	Y	Blades have been moved to unique locations. Some blades and racks have been painted. Blades have been covered with tarps.	-
865	6	TA-60-1 Heavy Equipment Yard	10/22/2015 0:00	Lower lot to the East	HEINTSCHEL CLIFF L	Control measures inadequate to meet non-numeric effluent limitations	-	At the TA-60 Heavy Equipment Yard in lower lot, shoring material needs to be reorganized. Need to continue clean up and cover metals.	Routine facility inspection	-	Metals have been covered with tarps. Shoring material is stacked.	N	-	-	N	10/22/2015 0:00	12/11/2015 0:00	Y	Metals have been organized and covered	-
853	6	TA-60-1 Heavy Equipment Yard	12/8/2015 0:00	TA-60 Heavy Equipment Yard between the upper and lower yard.	WHEELER HOLLY L	Control measures not properly operated or maintained	-	At the TA-60 Heavy Equipment Yard just south of the angled rock rip rap, three rock check dams need maintenance. Sediment needs to be removed as it is either at the top of them or close to the top.	Other (describe) :	Site visit	Sediment needs to be removed from around the rock check dams.	N	-	-	N	12/8/2015 0:00	12/16/2015 0:00	Y	Sediment needs to be removed from around the rock check dams. Walked the area. Cannot find any areas that need attention. Will check with Holly. Walked site with Jack Caldwell. Won't be able to dig into frozen ground, so we will add rock and build up dams. Will close this CA and open another in spring to replace with rock rundown.	-
852	6	TA-60-1 Heavy Equipment Yard	12/8/2015 0:00	NE corner of the lower lot at the TA-60 Heavy Equipment Yard	WHEELER HOLLY L	Control measures not properly operated or maintained	-	The tarp used to cover metal stored in the northeast corner of the lower lot at the TA-60 Heavy Equipment Yard is partially off.	Other (describe) :	Site visit	Replace the tarp on the metal.	N	-	-	N	12/8/2015 0:00	12/8/2015 0:00	Y	Replace the tarp on the metal. Replaced	-
851	6	TA-60-1 Heavy Equipment Yard	12/8/2015 0:00	TA-60- Heavy Equipment Yard, south of outfall 025	WHEELER HOLLY L	Control measures not properly operated or maintained	-	At the TA-60 Heavy Equipment Yard, two rock check dams directly south of outfall 025 need maintanance.	Other (describe) :	Site visit.	The two rock check dams were repaired.	N	-	-	N	12/8/2015 0:00	12/14/2015 0:00	Y	N/A	-
846	6	TA-60-1 Heavy Equipment Yard	11/19/2015 0:00	TA-60 Heavy Equipment Yard (lower yard)	WHEELER HOLLY L	Control measures inadequate to meet non-numeric effluent limitations	-	At the TA-60 Heavy Equipment Yard, in the lower yard, there is a 30 cubic yard roll off bin containing metal for recycle that is not covered. In addition, a dumpster along the south fence was not closed.	Other (describe) :	Site visit.	Cover the 30 cubic yard roll off bin containing metal for recycle in the lower yard and close the dumpster along the south fence.	N	-	-	N	11/19/2015 0:00	11/23/2015 0:00	Y	Cover the 30 cubic yard roll off bin containing metal for recycle in the lower yard and close the dumpster along the south fence. Removed uncovered dumpster and replaced with covered dumpster.	-

CERTIFICATION FOR CORRECTIVE ACTIONS

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed Name: Russell Stone **Title:** UI ESH Manager 4

Signature: Russell Stone Digitally signed by Russell Stone DN: cn=Russell Stone, o=DSESH-UI, ou=ADESH, email=rdstone@lanl.gov, c=US Date: 2018.02.09 10:19:05 -07'00' **Date:** _____

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10	Used Oil Recycling	ORD0870006	698,422	1/18/17	INV0836554	325
10	Used Oil Recycling	ORD0871686	700,112	2/15/17	INV0837953	655
10	Used Oil Recycling	ORD0873267	701,705	3/15/17	INV0839600	414
10	Used Oil Recycling	ORD0874866	703,313	4/12/17	INV0840913	483
10	Used Oil Recycling	ORD0876502	704,958	5/10/17	INV0842585	550
10	Used Oil Recycling	ORD0878184	706,654	6/7/17	INV0844056	1322
10	Used Oil Recycling	ORD0881154	709,645	8/3/17	INV0847019	803
10	Used Oil Recycling	ORD0884344	712,855	9/28/17	INV0850045	340
10	Used Oil Recycling	ORD0885958	714,490	10/26/17	INV0851583	502
10	Used Oil Recycling	ORD0888946	717,508	12/20/17	INV0854513	792
10	Used Oil Recycling		718,548	12/20/17	INV0855243	792
						6,978
11	Service Fee	ORD0870006	698,422	1/18/17	INV0836554	1
11	Service Fee	ORD0871686	700,112	2/15/17	INV0837953	1
11	Service Fee	ORD0873267	701,705	3/15/17	INV0839600	1
11	Service Fee	ORD0874866	703,313	4/12/17	INV0840913	1
11	Service Fee	ORD0876502	704,958	5/10/17	INV0842585	1
11	Service Fee	ORD0878184	706,654	6/7/17	INV0844056	1
11	Service Fee	ORD0881154	709,645	8/3/17	INV0847019	1
11	Service Fee	ORD0884344	712,855	9/28/17	INV0850045	1
11	Service Fee	ORD0885958	714,490	10/26/17	INV0851583	1
11	Service Fee	ORD0888946	717,508	12/20/17	INV0854513	1
11	Service Fee		718,548	12/20/17	INV0855243	1
						11
20	Used Oily Water Recycling	ORD0870006	698,422	1/18/17	INV0836554	1232
20	Used Oily Water Recycling	ORD0871686	700,112	2/15/17	INV0837953	1424
20	Used Oily Water Recycling	ORD0873267	701,705	3/15/17	INV0839600	1198
20	Used Oily Water Recycling	ORD0878184	706,654	6/7/17	INV0844056	1293
20	Used Oily Water Recycling	ORD0881154	709,645	8/3/17	INV0847019	1282
20	Used Oily Water Recycling	ORD0884344	712,855	9/28/17	INV0850045	1322
20	Used Oily Water Recycling	ORD0885958	714,490	10/26/17	INV0851583	655
20	Used Oily Water Recycling	ORD0888946	717,508	12/20/17	INV0854513	1198
20	Used Oily Water Recycling		718,548	12/20/17	INV0855243	1198
						10,802
30	Used Oil Coolant Recycling	ORD0871686	700,112	2/15/17	INV0837953	45
30	Used Oil Coolant Recycling	ORD0873267	701,705	3/15/17	INV0839600	50
30	Used Oil Coolant Recycling	ORD0881154	709,645	8/3/17	INV0847019	55
30	Used Oil Coolant Recycling	ORD0888946	717,508	12/20/17	INV0854513	20
30	Used Oil Coolant Recycling		718,548	12/20/17	INV0855243	20
						190

Appendix K

Critical Habitat Documentation for LANL

K-1, Threatened and Endangered Species Habitat Management Plan (HMP) for LANL

K-2, U.S. Fish & Wildlife Concurrence
(Biological Assessment of Jemez Mtn Salamander Site Plan)

K-3, TA-3 and TA-60 IPac Trust Resource Report

K-1, Threatened and Endangered Species Habitat Management Plan (HMP) for LANL

LA-UR-14-21863
Approved for public release;
distribution is unlimited.

Title: **Threatened and Endangered Species Habitat Management Plan for Los Alamos National Laboratory**

Author(s): Environmental Protection Division
Resources Management Team

Intended for: Reference purposes

Date: March 2014



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ACRONYMS

AEI	Area of Environmental Interest
BA	biological assessment
Bd	Batrachochytrium dendrobatidis
BSL-3	Biosafety Level 3
COPCs	chemicals of potential concern
DARHT	Dual-Axis Radiographic Hydrodynamic Test (Facility)
dB	Decibel
DDT	(dichloro-diphenyl-trichloroethane)
DOE	U.S. Department of Energy
EPA	Environmental Protection Agency
ESA	Endangered Species Act of 1973
fc	foot candles
FR	Federal Register
GIS	geographic information system
HMP	Threatened and Endangered Species Habitat Management Plan
HVAC	heating, ventilation, and air conditioning
LANL	Los Alamos National Laboratory
NEPA	National Environmental Policy Act
NMED	New Mexico Environment Department
NPDES	National Pollutant Discharge Eliminations System
PCBs	polychlorinated biphenyls
PR-ID	Permits and Requirements Identification
SME	subject matter expert
USFWS	U.S. Fish and Wildlife Service

I. THREATENED AND ENDANGERED SPECIES HABITAT MANAGEMENT PLAN GENERAL OVERVIEW

1.0 INTRODUCTION

Los Alamos National Laboratory's (LANL) Threatened and Endangered Species Habitat Management Plan (HMP) was prepared to fulfill a commitment made in the U.S. Department of Energy's (DOE) "Final Environmental Impact Statement for the Dual-Axis Radiographic Hydrodynamic Test Facility Mitigation Action Plan" (DOE 1996). The HMP received concurrence from the U.S. Fish and Wildlife Service (USFWS) in 1999 (USFWS consultation numbers 2-22-98-I-336 and 2-22-95-I-108). In this 2014 update, we retained the management guidelines from the 1999 HMP for listed species, updated some descriptive information, and added the Jemez Mountains salamander (*Plethodon neomexicanus*), which was federally listed in September 2013 (USFWS consultation number 02ENNM00-2014-I-0014).

2.0 ROLE OF SITE PLANS IN THE HMP

The purpose of the HMP is to provide a management strategy for the protection of threatened and endangered species and their habitats on LANL property. The HMP consists of site plans for federally listed threatened or endangered species with a moderate or high probability of occurring at LANL. The following federally listed threatened or endangered species currently have site plans at LANL: Mexican Spotted Owl (*Strix occidentalis lucida*), Southwestern Willow Flycatcher (*Empidonax trailii extimus*), and the Jemez Mountains salamander. Site plans provide guidance to ensure that LANL operations do not adversely affect threatened or endangered species or their habitats.

3.0 DESCRIPTION OF AREAS OF ENVIRONMENTAL INTEREST

Suitable habitats for federally listed threatened and endangered species have been designated as Areas of Environmental Interest (AEIs). AEIs are geographical units at LANL that are managed for the protection of federally listed species and consist of core habitat areas and buffer areas. The purpose of the core habitat is to protect areas essential for the existence of the specific threatened or endangered species. This includes the appropriate habitat type for breeding, prey availability, and micro-climate conditions. The purpose of buffer areas is to protect core areas from undue disturbance and habitat degradation.

Site plans identify restrictions on activities within the AEIs. Allowable activities are activities that the USFWS has reviewed and provided concurrence that these activities are not likely to adversely affect federally listed species. Activities discussed in site plans include day-to-day activities causing disturbance (hereafter referred to as "disturbance activities"), such as access into an AEI, and long-term impacts, such as habitat alteration.

3.1 Definition and Role of Developed Areas in AEI Management

Summary: Habitat alteration is not restricted in developed areas unless it impacts undeveloped core areas of an AEI (e.g., noise and light impacts on a core area). Current ongoing disturbance activities are not restricted in developed areas. Disturbance activities not currently ongoing are

restricted when impacts occur to undeveloped core areas of an AEI that are occupied by a threatened or endangered species.

Developed areas include all building structures, paved roads, improved gravel roads, paved and unpaved parking lots, and firing sites. The extent of developed areas in each AEI was determined using two methods. First, LANL geographic information system (GIS) analysts placed a 15 m (49 ft) border around all buildings and parking lots. For paved and improved gravel roads, the developed area was defined as the area to a roadside fence, if one exists within 9 m (30 ft) of the road, or 5 m (15 ft) on each side of the road, if there is no fence within 9 m (30 ft). If an area of highly fragmented habitat was enclosed by roads, a security fence, or connected buildings, that area was also classified as developed. Developed areas at firing sites were defined as a circle with a 91-m (300-ft) radius from the most centrally located firing pad. Second, LANL GIS analysts overlaid scanned orthophotos onto a map of the Los Alamos area and digitized all areas that appeared developed. These two information sources were overlaid and combined, so that areas classified as developed by either method were considered developed in final maps and analyses. Some areas were confirmed by ground surveys, such as the firing sites. Developed areas are contained in the HMP GIS database.

Developed areas are located in the core and/or buffer of some AEIs. However, developed areas do not constitute suitable habitat for federally listed species. Current ongoing activities in developed areas constitute a baseline condition for the AEIs and are not restricted. New activities including further development within already existing developed areas are not restricted unless they impact undeveloped portions of an AEI core. For example, if light or noise from a new office building in a developed area were to raise levels in an undeveloped core area, those light and noise levels would be subject to the guidelines on habitat alterations. If a proposed action within a developed area does not meet site plan guidelines, it must be individually reviewed for compliance with the Endangered Species Act of 1973 (ESA).

Building a new structure or clearing land within a previously designated developed area in an AEI core does not add to the size of the developed area. New structures in core areas will not be given any developed-area border unless they are individually reviewed for ESA compliance.

Development occurring in the developed area in an AEI buffer can be given a 15 m (49 ft) developed-area border at the discretion of the project leader or facility manager. To expand the size of a developed area in a buffer based on new developments, please contact a LANL biological resources subject matter expert (SME) (http://int.lanl.gov/environment/bio/controls/index.shtml).

3.2 General Description of Buffer Areas and Allowable Buffer Area Development

Summary: Limited future development is allowed in the currently undeveloped DOE-controlled buffer area under the guidelines of this HMP as long as it does not alter habitat in the undeveloped AEI core (including light and noise guidelines). Development beyond the cap established for each AEI, or greater than 2 ha (5 ac) in size including the developed-area border, requires independent review for ESA compliance.

The purpose of buffer areas is to protect core areas from undue disturbance or habitat degradation. The current levels of development in buffer and core areas represent baseline conditions for this

HMP. No further development is allowed in the core area under the guidelines of this HMP. A limited amount of development is allowed in buffer areas. Under the guidelines of this HMP, individual development projects are limited to 2 ha (5 ac) in size, including a 15 m (49 ft) developed-area border around structures and a 5 m (15 ft) developed-area border around paved and improved gravel roads. Projects greater than 2 ha (5 ac) in area require individual review for ESA compliance (see exceptions for fuels management activities and utility corridor maintenance). New development projects in AEI buffer areas must be reported to LANL biological resources SMEs for tracking (http://int.lanl.gov/environment/bio/controls/index.shtml). Descriptions of each of the AEIs give the total area in each buffer area available for development.

3.3 Emergency Actions

Summary: Contact DOE and LANL biological resources SMEs as soon as possible.

If safety and/or property is immediately threatened by something occurring within an AEI (for example, wildfire, water line breakage, etc.) managers may activate emergency actions. Contact a LANL biological resources SME (http://int.lanl.gov/environment/bio/controls/index.shtml), the Environmental Stewardship Group (1-505-665-8855), or the DOE Los Alamos Field Office (Field Office; 1-505-667-6819) as soon as possible. If the emergency occurs outside of regular business hours, contact the Emergency Management Office (1-505-667-6211). This office will then communicate with the appropriate LANL and DOE Field Office personnel.

4.0 IMPLEMENTATION OF SITE PLANS

4.1 Roles and Responsibilities

Summary: LANL's facility managers and operational staff are responsible for ensuring that activities are reviewed for compliance with all applicable site plans. Figure 1 illustrates the process for utilizing site plans. If activities follow approved guidance, there is no requirement for additional ESA regulatory compliance. However, additional National Environmental Policy Act (NEPA), cultural resources, wetlands, or other regulatory compliance actions may be required.

If an activity or project occurs outside of all LANL AEIs and will not impact habitat within an AEI, it does not have to be reviewed for ESA compliance, unless it is a large project. Projects that are larger than 2 ha (5 ac) or cost more than $5 million require an individual ESA compliance review, even if they are not located within an AEI.

LANL's facility managers are responsible for determining if operations within their geographic and/or programmatic area of responsibility comply with the guidelines in these site plans. Submission of a Permits and Requirements Identification (PR-ID) for a new or modified project is required under Program Description 400 (LANL 2013) and allows managers to identify the requirements within their project area. Deployed environmental professionals and core LANL biological resources SMEs are available to support facility managers. If activities follow site plan guidelines, they do not require any additional ESA regulatory compliance action. However, NEPA, cultural resources, wetlands, or other regulatory compliance actions are not addressed in site plans and additional compliance actions may be required. It is the responsibility of the project leader or facility management staff to ensure that all requirements are satisfied. If you have

questions, contact biological, cultural, NEPA, or other environmental SMEs. Contacts can be found at http://int.lanl.gov/environment/compliance/ier/index.shtml.

A single facility may have one or more AEIs within its boundary and the AEIs may be for different species. Some AEIs overlap. In areas where overlap occurs, project managers must follow the guidelines for AEIs of all involved species.

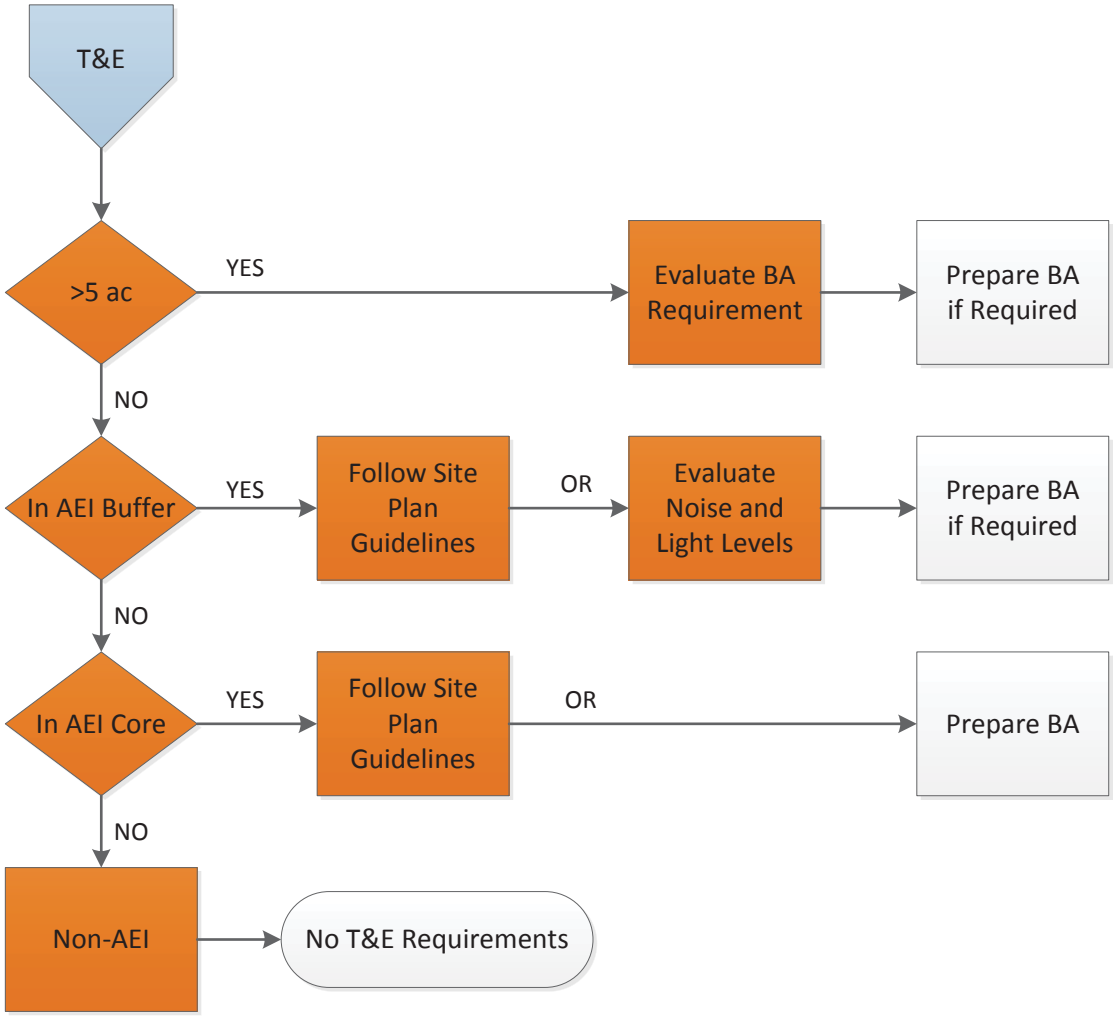


Figure 1. Process flowchart for determining site plan requirements.

4.2 If an Activity Does Not Meet Site Plan Guidelines

Summary: Activities or projects that do not meet all applicable site plan guidelines must be evaluated individually for compliance with the ESA.

If a project reviewer determines that an activity or project cannot meet the guidelines in applicable site plans, LANL biological resources SMEs evaluate that activity individually for compliance with the ESA. Results of the evaluation of potential impacts allow LANL biological resources SMEs to make recommendations to the DOE Field Office Biological Resources Program Manager

regarding the need for USFWS consultation. An evaluation may result in 1) a DOE Field Office determination that there is no possibility of adverse effects and the activity can proceed, 2) a DOE Field Office suggestion for modifications of the action to avoid adverse effects so that it can proceed, or 3) a DOE Field Office decision to prepare a biological assessment (BA) for the activity and submit it to the USFWS for concurrence. Fieldwork and preparation of a BA can take a few months with an additional 2 to 12 months for DOE Field Office review and then final USFWS concurrence.

4.3 Dissemination of Information

Although information about threatened and endangered species is not classified, it is considered sensitive information. It is in the best interest of threatened and endangered species to restrict specific knowledge about their locations. Habitat locations of threatened and endangered species are not considered sensitive.

5.0 CHANGES IN THE HMP SINCE IMPLEMENTION

The HMP received concurrence from USFWS and was first implemented in 1999. Since that time, both the Peregrine Falcon (*Falco peregrinus*) and the Bald Eagle (*Haliaeetus leucocephalus*) have been delisted. Site plans for those species have been removed from LANL's HMP. Both species are protected at LANL under the Migratory Bird Treaty Act, and the Bald Eagle is also protected under the Bald and Golden Eagle Protection Act.

The black-footed ferret (*Mustela nigripes*) is federally listed as endangered. However, no sightings of black-footed ferrets have been reported in Los Alamos County for more than 50 years. In addition, no large prairie dog towns, which are prime habitat for black-footed ferrets, have been observed on DOE property around LANL. Therefore, there is no site plan for this species.

In 2005, the USFWS concurred with DOE's proposal for new Mexican Spotted Owl habitat boundaries based on a revised analysis of Mexican Spotted Owl habitat quality within DOE property around LANL (USFWS consultation number22420-2006-I-0010).

In 2012, the USFWS concurred with DOE's proposal to modify the habitat boundaries for the Los Alamos Canyon Mexican Spotted Owl AEI due to changes from the fire response activities after the Las Conchas wildfire (USFWS consultation number 02ENNM00-2012-IE-0088).

In 2013, the USFWS concurred with the DOE's new site plan for the Jemez Mountains salamander and its addition to LANL's HMP (USFWS consultation number 02ENNM00-2014-I-0014).

6.0 DATA MANAGEMENT

The data used in the implementation of the HMP is stored in a GIS database at LANL.

II. AREA OF ENVIRONMENTAL INTEREST SITE PLAN FOR THE MEXICAN SPOTTED OWL

1.0 SPECIES DESCRIPTION—MEXICAN SPOTTED OWL

1.1 Status

In 1993, the USFWS determined the Mexican Spotted Owl to be a threatened species under the authority of the ESA, as amended (58 Federal Register [FR] 14248). In 1995, the USFWS released its final recovery plan for the owl (USFWS 1995), which was revised in 2012 (USFWS 2012). The USFWS most recently designated critical habitat for Mexican Spotted Owl in 2004 (69 FR 53181).

1.2 General Biology

The Mexican Spotted Owl is found in northern Arizona, southeastern Utah, and southwestern Colorado south through New Mexico, west Texas, and into Mexico. It is the only subspecies of Spotted Owl recognized in New Mexico (USFWS 1995).

The Mexican Spotted Owl generally inhabits mixed conifer and ponderosa pine (*Pinus ponderosa;* Lawson & C. Lawson) - Gambel oak (*Quercus gambelli;* Nutt.) forests in mountains and canyons. High canopy closure, high stand diversity, multilayered canopy resulting from an uneven-aged stand, large, mature trees, downed logs, snags, and stand decadence as indicated by the presence of mistletoe are characteristic of Mexican Spotted Owl habitat. Some owls have been found in second-growth forests (i.e., younger forests that have been logged); however, these areas were found to contain characteristics typical of old-growth forests. Mexican Spotted Owls in the Jemez Mountains seem to prefer cliff faces in canyons for their nest sites (Johnson and Johnson 1985). The recovery plan for the Mexican Spotted Owl recommends that mixed conifer and pine-oak woodland types on slopes greater than 40 percent be protected for the conservation of this owl.

A mated pair of adult Spotted Owls may use the same home range and general nesting areas throughout their lives. A pair of owls requires approximately 800 ha (1,976 ac) of suitable nesting and foraging habitat to ensure reproductive success. Incubation is carried out by the female. The incubation period is approximately 30 days, and most eggs hatch by the end of May. Most owlets fledge in June, 34 to 36 days after hatching (USFWS 1995). The owlets are "semi-independent" by late August or early September, although juvenile begging calls have been heard as late as September 30. Young are fully independent by early October. The non-breeding season runs from September 1 through February 28. Although seasonal movements vary among owls, most adults remain within their summer home ranges throughout the year.

The diet of Mexican Spotted Owls nesting in canyons consists primarily of woodrats (*Neotoma* spp.) and mice (*Peromyscus* spp.) with lesser amounts of rabbits, birds, reptiles, and arthropods (Willey 2013). The relative abundance of prey types in Mexican Spotted Owl pellets collected at LANL are listed in Table A-1 in the Appendix. Ganey and Balda (1994) found core areas of individuals (i.e., where owls spent 60 percent of their time) averaged 134 ha (331 ac), and core areas for pairs averaged 160 ha (395 ac).

1.3 Threats

The Mexican Spotted Owl was listed as threatened because of destruction and modification of habitat caused by timber harvest and fires, increased predation on owls associated with habitat fragmentation, and a lack of adequate protective regulations.

2.0 IMPACT OF HUMAN ACTIVITIES

2.1 Introduction

The primary threats to Mexican Spotted Owls on DOE property around LANL property are 1) impacts to habitat quality from LANL operations and 2) disturbance of nesting owls. This section provides a review and summary of scientific knowledge of the effects of various types of human activities on the Mexican Spotted Owl and provides an overview of the current levels of activities at LANL.

2.2 Impacts on Habitat Quality

2.2.1 Development

The type of habitat used by Mexican Spotted Owls, late seral stage forests with large trees, are usually not found in large quantities near developed areas or near areas that have had recent agricultural or forest product extraction land uses. Therefore, Mexican Spotted Owls are generally not found near developments. Whether it is the development itself or a lack of suitable habitat that discourages colonization of these areas by Mexican Spotted Owls is unknown.

Areas of LANL vary from remote undeveloped areas to heavily developed and/or industrialized facilities. Most LANL facilities are situated atop mesas, primarily in the northern and western portion of the DOE property. LANL is bounded by developed residential, industrial, and retail areas along its northern boundary (the town of Los Alamos) and by residential and retail development along a portion of its eastern boundary (the town of White Rock). Three major paved roads traverse LANL from northeast to southwest. Sandia, Pajarito, and Los Alamos canyons have paved roads within AEIs, and several AEIs have dirt roads along at least a portion of the canyon bottom. AEIs containing paved or dirt roads in the canyon bottoms have not been occupied at LANL (Hathcock et al. 2010).

2.2.2 Ecological Risk

There is no specific information on the impact of chemicals on the Mexican Spotted Owl, although experience with other raptor species suggests that exposure to polychlorinated biphenyls (PCBs), dichloro-diphenyl-trichloroethane (DDT) and its derivatives, and other organophosphate or organochlorine pesticides would probably be harmful. Exposure to other chemicals could also be harmful (Cain 1988).

LANL completed three ecological risk assessments that included the Mexican Spotted Owl between 1997 and 2009. The ecological risk assessment process involves using computer modeling to assess potential effects to animals from chemicals of potential concern (COPCs) that have been detected in the environment. All of the following ecological risk assessments concluded that, on average, no appreciable impact is expected to Mexican Spotted Owls from COPCs (Gallegos et al. 1997; Gonzales et al. 2004; Gonzales et al. 2009).

2.2.3 Disturbance

2.2.3.1 Pedestrians and Vehicles

Based on work with other raptors, LANL biological resources SMEs assume that Mexican Spotted Owls would likely be disturbed by the approach of either pedestrians or vehicles. At an equal distance, pedestrians are frequently more disturbing to raptors than vehicles (Grubb and King 1991). Brown and Stevens (1997) reported that during surveys in Grand Canyon National Park, 22 times more Bald Eagles were found in canyon reaches with low human recreational use compared to reaches with moderate to high human recreational use. Human activity 100 m (328 ft) from Bald Eagle nests in Alaska caused clear and consistent changes in behavior of breeding eagles (Steidl and Anthony 2000).

Swarthout and Steidl (2001) found that both juvenile and adult roosting Mexican Spotted Owls were unlikely to alter their behavior in the presence of a single hiker at distances greater than 55 m (180 ft). Swarthout and Steidl (2003) concluded that cumulative effects of high levels of short-duration recreational hiking near Mexican Spotted Owl nests may be detrimental.

Many canyon bottoms and mesa tops at LANL have dirt roads traversing them. Most of these roads are gated. However, these roads are accessible to LANL employees and some of them are accessible to the public on foot or by bike. LANL biological resources SMEs have found that AEIs are occupied less often if there is recreational access into a canyon (Hathcock et al. 2010).

2.2.3.2 Aircraft

Ground-based disturbances appear to impact raptor reproductive success more than aerial disturbances (Grubb and King 1991). Grubb and Bowerman (1997) concluded that an exclusion of aircraft within 600 m (1,968 ft) of Bald Eagle nest sites would limit Bald Eagle response frequency to 19 percent.

Delaney et al. (1999) found for Mexican Spotted Owls that chainsaws consistently elicited higher response rates than helicopters at similar distances. Owl flush rates did not differ between nesting and non-nesting seasons. No owls flushed when noise stimuli (helicopter or chainsaws) were at distances greater than 105 m (344 ft). Distance was generally a better predictor of owl response to helicopter overflights than sound level.

LANL is restricted airspace, and planes infrequently fly less than 609 m (2,000 ft) above ground level. The County of Los Alamos operates an airport along the northern edge of LANL. The airport is located on the southern rim of Pueblo Canyon. Most flights approach and depart to the east of the airport, over the Rio Grande.

2.2.3.3 Explosives

There is no specific information on the reaction of Mexican Spotted Owls to explosives detonation currently available. Explosive blasts set off 120 to 140 m (393 to 459 ft) from active Prairie Falcon (*Falco mexicanus*) nests caused perched Prairie Falcons to flush from perches 79 percent of the time, and, in 26 percent of the cases, caused incubating Prairie Falcons to flush from nests. Measured sound levels at aerie entrances during blasts ranged from 129 to 141 decibel (dB) (Holthuijzen et al. 1990). Explosives blasting for dam construction 560 to 1,000 m (1,837 to 3,280 ft) from active Prairie Falcon nests caused a change in behavior 26 percent of the time, and

birds flushed in 17 percent of all cases. No incubating birds flushed (Holthuijzen et al. 1990). Brown et al. (1999) found little activity change in roosting or nesting Bald Eagles and no population-level impacts from weapons detonations at the Aberdeen Proving Ground. Holthuijzen et al. (1990) found that a 167-g (5.89-oz) charge of Kinestik produced noise levels between 138 and 141 dB at 100 m (328 ft), and that a 500-g (17.6-oz) charge of TNT produced noise levels between 144 and 146 dB at 100 m (328 ft). A 20-kg (44-lb) charge of TNT produced noise levels that measured 163 dB at 100 m (328 ft) (Paakkonen 1991).

Measurements of noise levels during explosives testing were conducted at three locations at LANL using quantities of high explosives ranging from 4.5 to 67.5 kg (10 to 148 lb) of TNT during six shots. Noise levels increased during the test from a background level of 31 dB(A)[1] to a range between 64 and 71 dB(A) during shots at a distance of 1.8 km (1.1 mi). At a distance of 4.3 km (2.67 mi), noise levels rose from a background range of 35 to 64 dB(A) to a range of 60 to 63 dB(A) (Vigil 1995). At a distance of 6.7 km (4.16 mi), noise levels rose from a background range of 38 to 51 dB(A) to a range of 60 to 71 dB(A) (Burns 1995). LANL biological resources SMEs estimated that the noise from a shot at the Dual-Axis Radiographic Hydrodynamic Test (DARHT) Facility would be 150 dB(A) at the source and 80 dB(A) at 400 m (1,312 ft) (Keller and Risberg 1995). LANL biological resources SMEs found that Mexican Spotted Owl AEIs located within the explosives testing buffer area were occupied more frequently than AEIs in other locations (Hathcock et al. 2010). This is likely due to the strict access control in explosives areas which limit human activity and development in the canyon bottoms.

2.2.3.4 Other Sources of Noise

Major noise-producing activities at LANL include automobile and truck traffic and noise associated with office buildings, construction activities, a live-fire range, and explosives testing. Also, there is noise associated with aircraft traffic at the Los Alamos County airport. Construction and maintenance activities involved with operations at LANL are fairly common. In addition, implementation of the 2005 Compliance Order on Consent (NMED 2005) issued by the New Mexico Environmental Department (NMED) has resulted in an increased frequency of drilling groundwater monitoring wells in protected habitat at LANL. Also, forest fuels management operations use chainsaws, chippers, and other noise-generating equipment. The 2010 National Pollutant Discharge Elimination System (NPDES) Individual Permit (EPA 2010) issued by the Environmental Protection Agency (EPA) requires sediment control features such as berms and small rock check dams to be installed at various sites with stormwater runoff; these are sometimes installed in protected habitat. LANL biological resources SMEs conducted a study of noise levels in canyons and found that the primary sources of noise exceeding 55 dB(A) were cars and trucks. Readings taken near flowing water were up to 11 dB(A) higher than readings taken elsewhere. The average dB(A) in canyons near paved roads ranged from 41 to 62, with maximum values ranging from 62 to 74. Away from paved roads 1.6 km (1 mi) or more, average dB(A) in canyons ranged from 37 to 50, with all but one average below 45. Maximum dB(A) away from paved roads ranged from 38 to 76 [76 dB(A) was measured during a thunder clap] (Huchton et al. 1997).

[1] Sound can be measured as decibels (dB), C-weighted dB [dB(C)], or A-weighted dB [dB(A)]. The dB(A) measurement best resembles the response of the human ear by filtering out lower and higher frequency sound not normally heard by the human ear.

Noise measurements were conducted by LANL biological resources SMEs at the Los Alamos County airport and in Bayo and Pueblo canyons, including the Los Alamos County Sewage Treatment Facility, in December 1997. Sound levels near the airport runway during the maximum use time (6:30 to 7:30 am) had background values averaging 54 dB(A). Noise during plane arrivals ranged from 47 to 63 dB(A). No measurements were collected during plane take-off. Sound measurements conducted in the bottoms of Pueblo and Bayo canyons ranged from 37 to 40 dB(A) in most areas of the canyon. At the sewage treatment facility parking lot during a working day, the average dB(A) during a three-minute period was 46 (range 45 to 49). At the intersection of the road going into Pueblo Canyon with State Road 502, the average dB(A) during a three-minute period was 60 (range 41 to 70).

LANL biological resources SMEs conducted sound measurements at successive distances from an industrial area near a canyon rim, into the canyon, and to the opposite rim, using a C-weighted decibel scale (Keller and Foxx 1997). Measurements of noise levels using the C-weighted decibel scale are greater than if measured using A-weighted decibels. The average background noise on the mesa was 65.8 dB(C) [with a range of 43–81 dB(C)]. The average background noise in the canyon bottom was 62.3 dB(C) [with a range of 54–78 dB(C)]. The average background noise at the bottom of the north-facing slope was 53.8 dB(C) [with a range of 48–64 dB(C)]. Measurements were taken mid-day.

LANL biological resources SMEs measured sound levels from various pieces of construction equipment used at project sites at LANL over 5-minute intervals at distances of 6 to 31 m (20 to 100 ft) (Knight and Vrooman 1999). Average values ranged from 58.5 dB(A) to 80.9 dB(A). Peak values ranged from 75.7 to 155.4 dB(A). Additional data were collected by other LANL operators on specific pieces of construction equipment and on the Security Computer Complex construction site fence perimeter at Technical Area 3 before and during construction (Knight and Vrooman 1999). The average noise levels before construction began was 56.6 dB(A), and the average during construction was 82.1 dB(A).

LANL biological resources SMEs conducted a series of sound measurements at LANL to investigate background noise levels around AEIs (Vrooman et al. 2000). Background noise levels were significantly higher in daytime than in nighttime. AEIs with greater than 10 percent developed area in their buffers had significantly higher levels of background noise than undeveloped AEIs. Mean background sound levels were 51.3 dB(A) in developed AEIs and 39.6 dB(A) in undeveloped AEIs. The LANL biological resources project review process uses the individual AEI background measurements from Vrooman et al. (2000) to screen project activities for increases more than 6 dB(A) above background.

LANL biological resources SMEs took sound level measurements of heavy equipment use associated with concrete recycling on Sigma Mesa at LANL in 2004 (Hansen 2004). At this location, background noise levels at two different locations were 55.2 and 58.8 dB(A). Operation of a dump truck hauling and dumping concrete increased noise levels above background by a mean of 22.7 dB(A) at 30 m (98 ft) and 2.4 dB(A) at 80 m (262 ft). Additional sound level measurements were taken in the same general area on Sigma Mesa in 2005 as part of a BA for the operation of an asphalt batch plant (Hansen 2005). Measurements were taken on the north rim of Mortandad Canyon (south of the asphalt batch plant at distances of approximately 30 to 122 m (100 to 400 ft), at the bottom of Mortandad Canyon, approximately 183 to 244 m (600 to 800 ft) from the asphalt

batch plant, and on the south rim of Mortandad Canyon approximately 305 m (1,000 ft) from the asphalt batch plant. Background noise levels at the various locations ranged from 41.1 to 48.7 dB(A). The only locations with increases greater than 3 dB(A) during operation of the asphalt batch plant were the locations on the north rim of Mortandad Canyon, within 122 m (400 ft) of the asphalt batch plant. Noise from the operation of the asphalt batch plant was not detected in the bottom of Mortandad Canyon or on the south rim.

LANL biological resources SMEs took sound level measurements around the LANL Biosafety Level 3 (BSL-3) Laboratory with the heating, ventilation, and air conditioning (HVAC) system on and with it off (Hansen 2009). The area to the north of the BSL-3 is developed, the area to the south is not. Background noise levels north of the facility ranged from 53.6 to 57.6 dB(A). Background noise levels south of the facility ranged from 41.6 to 49.7 dB(A). Noise from the HVAC system was detected at 25 m (82 ft) from the facility on both sides, but was not detected at 81 m (266 ft) on the north side, or at 107 m (351 ft) on the south side.

Overall, these studies appear to show that areas adjacent to or within developed areas or paved roads are likely to have daytime average background noise levels between 45 and 63 dB(A). Less disturbed areas are likely to have average background noise levels between 37 and 50 dB(A).

2.2.3.5 Artificially Produced Light

There is no information available on the effects of artificially produced light on Mexican Spotted Owls. Under the Los Alamos County Code, commercial site development plans are reviewed to ensure that lighting serves the intended use of the site while minimizing adverse impacts to adjacent residential property (Section 16-276). Section 16-276 of the County Code includes light source measurement limitations by zoning district. The code allows off-site light to be 0.5 foot candles (fc) in residential areas. By comparison, full moonlight measures 0.1 fc, and a crescent moon was measured at 0.01 fc. Table A-2 in the Appendix presents preliminary light measurements in fc.

Preliminary surveys were conducted for light levels within Los Alamos Canyon at the Omega Reactor (Keller and Foxx 1997). The Omega Reactor was brightly lit for purposes of security; therefore, total light intensity was greater than the average street lighting. Measurements were conducted at a light pole with an open parking lot at the reactor as the source. Trees did not obscure the area. Using the relationship of light intensity reducing as a square of the distance, calculations using the field data indicated that at 30 m (98 ft) from the source the light levels would be equivalent or nearly equivalent to full moonlight.

3.0 AEI GENERAL DESCRIPTION FOR MEXICAN SPOTTED OWL

An AEI consists of two areas—a core and a buffer. The core of the habitat is defined as suitable canyon habitat from rim to rim and 100 m (328 ft) out from the top of the canyon rim. The buffer area is 400 m (1,312 ft) wide extending outward from the edge of the core area. Although adult Mexican Spotted Owls may be found within their home range anytime throughout the year, the primary threat from disturbance to the owls is during the breeding season when owl pairs are tied to their nest sites. Therefore, management of disturbance in Mexican Spotted Owl AEIs is concentrated on the breeding season.

3.1 Method for Identifying a Mexican Spotted Owl AEI

The original location of each Mexican Spotted Owl AEI was identified using a habitat model developed by Johnson (1998) that classified nesting and roosting habitat for Mexican Spotted Owls using topographic characteristics and vegetative diversity. LANL biological resources SMEs compared the results from the Johnson (1998) model to a different model identifying slopes >40 percent in mixed conifer and ponderosa pine cover types at LANL. Areas identified from the Johnson (1998) model application to LANL that were over five contiguous 30 × 30 m (97 × 98 ft) pixels in size, were above 1,980 m (6,496 ft) in elevation, and that had mixed conifer or ponderosa pine forest cover, were considered suitable Mexican Spotted Owl habitat. Where suitable habitat was identified, AEI core area boundaries were established to include the canyons and 100 m (328 ft) outward from the canyon rims.

A new Mexican Spotted Owl habitat model was developed and refined for application on LANL following the Cerro Grande wildfire (Hathcock and Haarmann 2008). This model incorporated finer-scale vegetation characteristics into the Mexican Spotted Owl habitat quality assessment. This model was used to redelineate the boundaries of the Mexican Spotted Owl AEIs at LANL in 2005 following wildfire, drought, and a regional bark beetle outbreak (USFWS consultation number 22420-2006-I-0010).

The new core boundaries were delineated with an area approximately 0.4 km (0.25 mi) from the edge of the nearest suitable habitat, up and down canyon. Core boundaries were established along readily recognizable geologic features or anthropogenic features in the terrain wherever possible to facilitate the ease of identification of core boundaries when in the field.

3.2 Location and Number of Mexican Spotted Owl AEIs

There are currently five Mexican Spotted Owl AEIs on LANL, each encompassing one or more canyons. In general, the AEI cores are centered in canyons on the western side of LANL. The canyons with AEIs are Cañon de Valle, Water, Pajarito, Los Alamos, Sandia, Mortandad, and Three-Mile. AEI boundaries are maintained in the LANL biological resources program GIS database.

4.0 AEI MANAGEMENT

4.1 Overview

This AEI management section provides guidelines for LANL operations to reduce or eliminate the threats to Mexican Spotted Owls from 1) habitat alterations that reduce habitat quality and 2) disturbance of breeding or potentially breeding owls. Habitat alterations are considered for all AEIs and for both core and buffer areas. Disturbance activities to owls are considered only for occupied AEIs and only for impacts on core areas. Developed areas (see Part I, Section 3.1) that have ongoing baseline levels of activities and are not suitable habitat for Mexican Spotted Owls have different restrictions than undeveloped core or buffer areas. Therefore, the location of the disturbance activity within the AEI, the occupancy status of the AEI, and the type of activity all affect whether or not the activity is allowable. AEIs for different species may overlap, and an activity must meet the guidelines of all applicable site plans to be allowable.

4.2 Definition and Role of Occupancy in AEI Management

Summary: The occupancy status of an AEI affects what disturbance activities are allowable in different areas (core, buffer, developed) of the AEI. All Mexican Spotted Owl AEIs are considered occupied during March 1 through August 31 or until surveys show the AEI to be unoccupied. See the Activity Table (Table 1, Section 4.5.2) for restrictions on occupied undeveloped core and buffer areas, and Part I, Section 3.1 for restrictions on developed areas.

Occupancy simply refers to whether or not an AEI is occupied during a species' period of sensitivity. For Mexican Spotted Owls, LANL is primarily concerned with protecting the owls from disturbance during the breeding season. Because individuals may colonize suitable habitat, all Mexican Spotted Owl AEIs are treated as though they are occupied from March 1 through August 31 or until surveys show an AEI to be unoccupied. Mexican Spotted Owl surveys are conducted from late March through June. In general, surveys in areas with ongoing or proposed projects are completed by May 15. If a nest is located during surveys, then the AEI can be treated as unoccupied except for the area within a 400 m (1,312 ft) radius of the nest site. Because owls are not as sensitive to disturbance during the non-breeding season, Mexican Spotted Owl AEIs are treated as unoccupied from September 1 to February 28.

The occupancy status of an AEI affects what activities are allowable in the AEI. Although activities causing habitat alterations are restricted in all AEIs, disturbance activities are restricted only in occupied AEIs. The Activity Table (Table 1, Section 4.5.2) provides dates and levels of allowable disturbance activities within occupied Mexican Spotted Owl AEIs under the guidelines of this site plan. Contact a LANL biological resources SME to find out the current occupancy status of an AEI (http://int.lanl.gov/environment/bio/controls/index.shtml).

4.3 Introduction to AEI Management Guidelines

Summary: The habitat alterations section and the activities section give the guidelines for habitat alteration and disturbance activities, respectively, for Mexican Spotted Owl AEIs. The flow chart (see Figure 1) provides a quick reference to determine what, if any, guidelines need to be consulted for a specific activity. Protective measures give management practices that should be applied when working or considering work in AEIs. LANL biological resources SMEs are available to answer questions and provide advice (http://int.lanl.gov/environment/bio/controls/index.shtml).

Sections 4.4 and 4.5 provide the guidelines for habitat alterations and allowable activities in AEI core and buffer areas. Section 4.4 describes what and where habitat alterations are allowed under the guidelines of this site plan. Section 4.5 describes what, when, and where disturbance activities are allowed in occupied AEIs under the guidelines of this site plan. If an activity does not meet the restrictions given in the guidelines, the activity must be individually reviewed for ESA compliance. This site plan only provides guidelines for Mexican Spotted Owl AEIs. If an activity is desired in an area with overlapping AEIs, all applicable site plans must be consulted. AEI maps show the location of all AEIs in an area. Section 4.6 describes management practices that should be applied when working or considering work in an AEI. LANL biological resources SMEs are available to answer questions and provide advice (http://int.lanl.gov/environment/bio/controls/index.shtml).

4.4 Definition of and Restrictions on Habitat Alterations

4.4.1 Definition of Habitat Alterations

Habitat alteration includes any action that alters the soil structure, vegetative components necessary to the species, prey quality and quantity, water quality, hydrology, or noise or light levels in undeveloped areas of an AEI. Long-term means the alteration lasts for more than one year. For physical disturbances, in general, any activity that can be accomplished by one person with a hand tool is generally not considered habitat alteration; any activity that requires mechanized equipment on a landscape is habitat alteration. An actual activity may take place outside of the AEI and will be considered habitat alteration if consequences of the activity have effects inside the AEI core.

The habitat components most important to Mexican Spotted Owls include vegetative structure, food quality and quantity, and disturbance levels, including noise and light. The forest structure within a canyon designated as a Mexican Spotted Owl AEI is important because it provides roost sites and a suitable habitat for nesting and foraging. Trees along the canyon rim are used for foraging and territorial calling, and they shelter the canyon interior from light and noise disturbances.

A long-term change in light or noise levels within the undeveloped core of an AEI is considered to be a habitat alteration if it increases average noise levels by $\geq$6 dB(A) during any portion of the 24-hour day, or it increases average light levels by $\geq$0.05 fc at night. Changes in noise and light levels are measured at the core area boundary if the source is outside the core area, or at 10 m (33 ft) from the source if the source is inside the undeveloped core area. Impacts of changes in developed areas on undeveloped cores are measured at the developed area boundary if it is within the core, or at the core area boundary if the developed area is outside of the core.

4.4.2 Fuels Management Practices to Reduce Wildfire Risk

The recovery plan for the Mexican Spotted Owl lists stand-replacing wildfires as a primary threat to their habitat and encourages land managers to reduce fuel levels and abate fire risks in ways compatible with owl presence on the landscape (USFWS 1995). Within undeveloped core areas, on slopes >40 percent, in the bottoms of steep canyons, and within 30 m (100 ft) of a canyon rim, thinning of trees <22 cm (9 in) diameter at breast height, treatment of fuels, and prescribed and natural prescribed fires are allowed. Exceptions allowing trees >22 cm (9 in) to be thinned within 30 m (100 ft) of buildings are granted to protect facilities. Large logs (>30 cm [11.8 in] midpoint diameter) and snags should be retained. Thinning within core areas not meeting the characteristics listed above, and in buffer areas, may include trees of any size to achieve 8 m (25 ft) spacing between tree crowns. However, clear cutting is not allowed in undeveloped core areas.

For health and safety reasons, any trees within 30 m (100 ft) of buildings, but outside a developed area, may be thinned to achieve 8 m (25 ft) spacing between crowns. Habitat alterations including thinning are not restricted in developed areas. However, LANL biological resources SMEs encourage the retention of trees and snags along canyon rims if the rim is in a developed area. Because of the extreme fire danger associated with firing sites and the potential impact of a fire on Mexican Spotted Owl habitat, firing sites and burn areas are treated separately for the purposes of fuels management. Trees within 380 m (1,246 ft) of firing sites and burn areas in both core and

buffer areas may be thinned to a 15 m (49 ft) spacing between trees everywhere except on slopes >40 percent or in the bottoms of steep canyons. Any tree over 22 cm (9 in) diameter at breast height within 380 m (1,246 ft) of a firing site may be delimbed to a height of 2 m (6 ft) to help prevent crown fires.

In historically occupied core areas, fuels treatment may not exceed 10 percent of the undeveloped core area and is not allowed within 400 m (1,312 ft) of nesting areas. In occupied core areas, forest management activities must take place during the nonbreeding season (September 1 to February 28) (USFWS 1995). Fuels management activities that are allowable in core areas have to be reported to LANL biological resources SMEs for tracking.

4.4.3 Utility Corridors

Habitat alterations such as cutting down trees that threaten power lines are allowed within 8 m (26 ft) of either side of an existing utility line in all areas of an AEI (Trujillo and Racinez 1995). New utility lines and utility lines requiring clearance of a right-of-way greater than 16 m (52 ft) total must be individually reviewed for ESA compliance. Disturbance activities must follow the guidelines given in the Activities Table (Table 1, Section 4.5.2) for occupied AEIs.

4.4.4 Restrictions on Habitat Alterations

Summary: Habitat alterations other than fuels management practices and utility corridor maintenance are not allowed in undeveloped core areas. Habitat alterations in buffer areas are restricted to 2 ha (5 ac) per project, with a maximum cap on development in the buffer for each AEI. Habitat alterations other than fuels management and utility corridor maintenance must be reported to LANL biological resources SMEs for tracking (http://int.lanl.gov/environment/bio/controls/index.shtml).

Habitat alterations other than the fuels management practices and utility corridor maintenance described above are not allowed in undeveloped core areas under the guidelines of this site plan. If a project or activity is planned that would alter habitat in an undeveloped core area, it must be individually evaluated for ESA compliance. Habitat alterations in undeveloped buffer areas other than the fuels management activities and utility corridor maintenance described above are restricted to 2 ha (5 ac) in area per project and are subject to other restrictions including light and noise effects in the core (see Section 2.2.3). Projects in the buffer over 2 ha (5 ac) in size will require individual ESA compliance review.

Habitat alterations in a buffer area other than the fuels management and utility corridor maintenance described above must be reported to LANL's biological resources SMEs for tracking (http://int.lanl.gov/environment/bio/controls/index.shtml). There is a cumulative maximum area that can be developed in each AEI's buffer. Once that cumulative area is reached, all habitat alterations in a buffer will require individual ESA reviews for compliance.

4.5 Definition of and Restrictions on Disturbance Activities

4.5.1 Definitions of Disturbance Activities

LANL biological resources SMEs considered six categories of activities that might cause disturbance in an AEI. Most of the categories were first identified in the document "Peregrine

Falcon Habitat Management in the National Forests of New Mexico," prepared for the United States Forest Service (Johnson 1994). LANL biological resources SMEs added explosives detonation, other light production, and other noise production to provide the most comprehensive list of activities possible, thereby reducing the need for individual review of activities for ESA compliance. The categories of activities are people, vehicles, aircraft, other light production, other noise production, and explosives detonation. LANL biological resources SMEs have defined low, medium, and high levels of impact for these activities except for explosives detonation. Activity levels for explosives detonation have been designed to follow the guidelines agreed upon by LANL, DOE, and USFWS in the DARHT BA (Keller and Risberg 1995). Restrictions on explosives detonation are described in the definition of the activity, but are not included in the Activity Table (Table 1, Section 4.5.2). These six categories of activities are restricted only in AEIs that are classified as occupied.

People—includes any entry of people into an AEI on foot.

- Low impact is the presence of three or fewer people per project and duration of one day or less during a breeding season.
- Medium impact is the exceedance of either the number of people or the duration criteria.
- High impact is the exceedance of both the number of people and the duration criteria.

Vehicles—includes the entry of any two-axle highway vehicle, all-terrain vehicle, or motorized machinery into an AEI by any route other than a paved road or an improved gravel road.

- Low impact is the presence of two or fewer vehicles per project and duration of one day or less during a breeding season.
- Medium impact is the exceedance of either the number of vehicles or the duration criteria.
- High impact is the exceedance of both the number of vehicles and the duration criteria.

Aircraft—includes the operation of any aircraft below an elevation of 600 m (2,000 ft) above the highest ground level in the local vicinity.

- Low impact is the presence of one single-engine airplane and the duration of one day or less during a breeding season.
- Medium impact is the exceedance of either the number of aircraft or the duration criteria.
- High impact is the exceedance of both the number of aircraft and the duration criteria.

Any use of helicopters, jet airplanes, and propeller airplanes with two or more engines is classified as medium impact or above, depending on duration.

Other Light Production—includes any activity not previously listed that causes additional light to occur in an AEI core area. For example, plans for construction of a new building at the edge of a developed area may call for lighting at night to facilitate nighttime work that impacts an undeveloped core area.

- Low impact is the increase of light intensity by ≤0.05 fc and a duration of one night or less per project per breeding season.
- Medium impact is the exceedance of either the intensity or duration criteria.
- High impact is the exceedance of both the intensity and duration criteria.

Measurements for increases in light are taken at the AEI core area boundary closest to the light source if the source is outside the core and at 10 m (33 ft) from the source if the source is inside the core. Light measurements for developed areas are taken at the edge of the developed area if the developed area is within an AEI core or at the closest core boundary if the developed area is outside of an AEI core.

Other Noise Production—includes any activity not previously listed except for explosives detonation that causes additional noise to occur in an AEI. For example, operation of machinery creates noise.

- Low impact is increasing noise levels in an AEI core by 6 dB(A) or less for one day or less per project per breeding season.
- Medium impact is the exceedance of either the level or the duration criteria.
- High impact is the exceedance of both the level and the duration criteria.

Measurements for increases in noise are taken at the AEI core boundary closest to the noise source if the source is outside the core and at 10 m (33 ft) from the source if the source is inside the core. Noise measurements for developed areas are taken at the edge of the developed area if the developed area is within an AEI core or at the closest core boundary if the developed area is outside of an AEI core.

Explosives Detonation—includes the use of high explosives for any purpose. LANL biological resources SMEs did not define low, medium, and high levels of this activity because of the difficulty of determining levels for a shot before actually doing the shot. For the purpose of explosives detonation near Mexican Spotted Owl AEIs, occupied habitat is defined as the area within 400 m (1,312 ft) of the current year's nest/roost sites or the previous year's nest site if a current site has not been identified. No explosives detonation will take place within 400 m (1,312 ft) of nest/roost sites in occupied habitat between March 1 and August 31. Explosives detonation at night at sites within 400 to 800 m (1,312 to 2,624 ft) of a nest site in occupied habitat is restricted to once a month from March 1 and August 31.There are no restrictions on daytime explosives testing between 400 and 800 m (1,312 to 2,624 ft). There are no restrictions between September 1 and February 28 or in unoccupied habitat. Explosives detonation adjacent to AEIs that have not previously been recorded by LANL as occupied will have no restrictions unless surveys detect Mexican Spotted Owls. Explosives tests not allowed under the guidelines of this site plan must be individually reviewed for ESA compliance.

4.5.2 Activity Table

The dates shown in the Activity Table (Table 1) are the dates between which the activity in the row is restricted under the guidelines of this site plan. All AEIs are considered occupied from March 1 to August 31 or until surveys show an AEI to be unoccupied. If owls are detected, AEIs

are considered occupied until August 31 within 400 m (1,312 ft) of the nest site. Consult with LANL biological resources SMEs to find out occupancy status of AEIs and what locations are within 400 m (1,312 ft) of nest sites (http://int.lanl.gov/environment/bio/controls/index.shtml).

Table 1. Restrictions on Activities in Undeveloped Occupied Mexican Spotted Owl AEIs

		Core	Buffer
People			
	Low	No Restrictions*	No Restrictions
	Medium	March 1 to August 31	No Restrictions
	High	March 1 to August 31	No Restrictions
Vehicles			
	Low	No Restrictions	No Restrictions
	Medium	March 1 to August 31	No Restrictions
	High	March 1 to August 31	No Restrictions
Aircraft			
	Low	March 1 to August 31	No Restrictions
	Medium	March 1 to August 31	March 1 to May 15
	High	March 1 to August 31	March 1 to August 31
Other Light Production			
	Low	March 1 to August 31	No Restrictions**
	Medium	March 1 to August 31	No Restrictions**
	High	March 1 to August 31	No Restrictions**
Other Noise Production			
	Low	March 1 to August 31	No Restrictions**
	Medium	March 1 to August 31	No Restrictions**
	High	March 1 to August 31	No Restrictions**
Explosives Detonation (see text in Section 4.5.1)			

*Entry is restricted in core areas that are occupied within 400 m (1,312 ft) of the nest site from March 1 to August 31. If the current nest has not been located, entry is restricted within 400 m (1,312 ft) of the previous year's nest site.

**Noise or light production in the buffer is restricted if the activity would violate core area restrictions on noise or light.

4.6 Protective Measures

Summary: This section provides a list of management practices to apply in Mexican Spotted Owl AEIs.

- Timing of projects must take into account that projects in core areas or projects that violate restrictions for occupied buffer areas must stop on February 28 each year until occupancy status of the AEI is determined.
- Every reasonable effort should be made to reduce the noise from explosives testing within 800 m (2,624 ft) of occupied habitat. Methods to reduce noise could include contained shots, noise shields in the direction of AEI cores, etc. For night shots, every reasonable effort should be made to limit the amount of light directed into AEI core areas.

- Put signs on dirt roads and trails leading into AEIs labeling them as restricted access areas and providing a number to contact for access restrictions.
- Keep disturbance and noise to a minimum.
- Avoid unnecessary disturbance to vegetation (e.g., excessive parking areas or equipment storage areas, off-road travel, materials storage areas, crossing of streams or washes).
- Avoid removal of vegetation along drainage systems and stream channels.
- Avoid all vegetation removals not absolutely necessary.
- Appropriate erosion and runoff controls should be employed to reduce soil loss. The controls must be put in place and periodically checked throughout the life of projects.
- All exposed soils must be revegetated as soon as feasible after construction to minimize erosion.
- In the Los Alamos Canyon AEI, development should be focused away from undeveloped areas on the western end of the AEI.

5.0 LEVELS OF DEVELOPMENT IN AEI CORE AND BUFFERS

5.1 Allowable Habitat Alteration in the Buffer Areas

The following quantifications of development and guidance for allowable habitat alteration in buffer areas were published and consulted on in the 1999 version of the HMP. Most AEIs changed in dimensions during the 2005 redelination of the habitats, and many have experienced additional development. Development in buffer habitat was not addressed during the 2005 consultation. Many projects were reviewed and received USFWS concurrence between 1999 and 2014.

LANL biological resources SMEs have provided the current development status for each of the AEIs at the end of each paragraph. The percent developed numbers were derived with the original size of the AEIs.

Cañon de Valle—In 1999, 16.3 ha (40.3 ac, 2.9 percent) of the core was developed and 52.2 ha (129 ac, 6.8 percent) of the DOE-controlled buffer was developed. For this AEI, it was recommended that only an additional 25.30 ha (62.5 ac) of the AEI buffer be developed. The 1999 HMP stated that once this cap is reached or a large-scale project is proposed, additional consultation with USFWS would be required. By 2011, 28 ha (69.2 ac) of the core and 84 ha (207.5 ac) of the buffer had been developed.

Pajarito—In 1999, there were 6.7 ha (16.5 ac, 5.5 percent) of the core developed and 75.1 ha (186.5 ac, 16.7percent) developed in the buffer. LANL biological resources SMEs recommended only an additional 35 ha (86.4 ac) of the buffer be developed before additional USFWS consultations take place. The 1999 HMP stated that once the cap is reached or a single large-scale project is proposed, additional consultation would be required. By 2011, 27 ha (66.7 ac) of the core and 89 ha (220 ac) of the buffer had been developed.

Los Alamos—In 1999, there were 77.16 ha (190 ac) of the core developed and 167.2 ha (413.1 ac) developed in the buffer. For this AEI, LANL biological resources SMEs recommended only an

additional 28.6 ha (70.6 ac, 5.9 percent) of the DOE-owned buffer be developed before additional USFWS consultations take place.

Because this AEI is so heavily developed, additional development was restricted to a few selected areas within the buffer. Development outside of these areas requires individual review for ESA compliance. A large percentage of this AEI was removed in the 2005 and 2013 BAs. By 2011, 94 ha (232.2 ac) of the core and 181 ha (447.3 ac) of the buffer had been developed.

Sandia-Mortandad—In 1999, 98.4 ha (243.2 ac) of this AEI on DOE lands were developed, including 29 ha (71.7 ac, 10.7 percent) of the core and 75.1 ha (185.6 ac, 16.7 percent) of the buffer. For this AEI, LANL biological resources SMEs recommended only an additional 38.1 ha (94.1 ac) of the buffer be developed before additional USFWS consultations take place. Once this cap is reached or a single large-scale project is proposed, additional consultation will be required. By 2011, 45 ha (111.2 ac) of the core and 83 ha (205.1 ac) of the buffer had been developed.

Three Mile—In 1999, 25.3 ha (62.5 ac) of this AEI on DOE lands were developed, including 3.8 ha (9.4 ac, 2.8percent) of the core and 21.5 ha (51.1 ac, 7.3 percent) of the buffer. For this AEI, LANL biological resources SMEs recommended only 64.3 ha (158.8 ac) additional area of buffer be developed before additional USFWS consultations take place. Once this cap is reached or a single large-scale project is proposed, additional consultation will be required. By 2011, 12 ha (29.6 ac) of the core and 37 ha (91.4 ac) of the buffer had been developed.

III. AREA OF ENVIRONMENTAL INTEREST SITE PLAN FOR THE SOUTHWESTERN WILLOW FLYCATCHER

1.0 SPECIES DESCRIPTION—SOUTHWESTERN WILLOW FLYCATCHER

1.1 Status

In 1995, the USFWS designated the Southwestern Willow Flycatcher as a federally endangered species (60 FR 10693). The USFWS most recently designated critical habitat for the Southwestern Willow Flycatcher in 2005 (70 FR 60885). The most recent recovery plan was published for Southwestern Willow Flycatcher in 2002 (USFWS 2002).

1.2 General Biology

The Southwestern Willow Flycatcher is one of four subspecies of the Willow Flycatcher. The historic range of the Southwestern Willow Flycatcher included Arizona, California, Colorado, New Mexico, Texas, Utah, and Mexico. Currently, this flycatcher breeds in riparian habitats from southern California to Arizona and New Mexico, plus southern Colorado, Utah, Nevada, and far western Texas. In winter it is found in southern Mexico, Central America, and northern South America (USFWS 2002).

Southwestern Willow Flycatchers are present in New Mexico from early May through mid-September and breed from late May through late July (Finch and Kelly 1999; USFWS 2002; Yong and Finch 1997). The flycatcher's nesting cycle is approximately 28 days. Three or four eggs are laid at one-day intervals, and incubation begins when the clutch is complete. The female incubates eggs for approximately 12 days, and the young fledge about 13 days after hatching.

Southwestern Willow Flycatchers typically raise one brood per year (USFWS 2002). Because arrival dates vary, northbound migrant Willow Flycatchers (of all subspecies) pass through areas where Southwestern Willow Flycatchers have already begun nesting. Similarly, southbound migrants (of all subspecies) in late July and August may occur where Southwestern Willow Flycatchers are still breeding. Therefore, it is only during a short period of the breeding season (approximately June15 through July 20) that one can assume that a Willow Flycatcher seen within Southwestern Willow Flycatcher range is probably of that subspecies (USFWS 2002).

The Southwestern Willow Flycatcher only nests along rivers, streams, and other wetlands. It is found in close association with dense stands of willows (*Salix* spp.), arrowweed (*Pluchea* spp.), buttonbush (*Cephalanthus* spp.), tamarisk (*Tamarix* spp.), Russian olive (*Eleagnus angustifolia* L.), and other riparian vegetation, often with a scattered overstory of cottonwood (*Populus* spp.) (USFWS 2002). The size of vegetation patches or habitat mosaics used by Southwestern Willow Flycatchers varies considerably and ranges from as small as 0.8 ha (1.9 ac) to several hundred hectares (Hatten and Paradzick 2003). The Southwestern Willow Flycatcher nests in thickets of trees and shrubs approximately 2 to 15 m (6 to 49 ft) tall, with a high percentage of canopy cover and dense foliage from 0 to 4 m (0 to 13 ft) above ground. Regardless of the plant species composition or height, occupied sites always have dense vegetation in the patch interior (Allison et al. 2003; USFWS 2002).

The Southwestern Willow Flycatcher is an insectivore. It forages within and occasionally above dense riparian vegetation, taking insects on the wing and gleaning them from foliage. The flycatcher's prey includes flies, bees, wasps, ants, beetles, moths, butterflies, grasshoppers, crickets, dragonflies, damselflies, and spiders (Durst et al. 2008; Wiesenborn and Heydon 2007).

1.3 Threats

The current population of Southwestern Willow Flycatchers in the United States is estimated at 1,214 territories (Durst et al. 2006). The distribution of breeding groups is highly fragmented, with groups often separated by considerable distances. This subspecies has suffered declines attributed to extensive loss of its cottonwood-willow habitat and to poor productivity resulting from brood parasitism by Brown-headed Cowbirds (*Molothrus ater*) (USFWS 2002).

2.0 IMPACT OF HUMAN ACTIVITIES

2.1 Introduction

The primary threats to the Southwestern Willow Flycatcher on LANL property are 1) impacts on habitat quality from LANL operations and 2) disturbance of nesting flycatchers. This section includes a review and summary of the known effects of various types of human activities to the Southwestern Willow Flycatcher and an overview of the current levels of activities at LANL within species habitat.

2.2 Impacts on Habitat Quality

2.2.1 Development

Throughout the Southwest, riparian habitats are rare and tend to be small and separated by vast expanses of arid lands. The Southwestern Willow Flycatcher has experienced extensive loss and

modification of its habitat resulting from urban and agricultural development, water diversion and impoundment, channelization of waterways, livestock grazing, off-road vehicle and other recreational uses, and hydrological changes resulting from these and other land uses (USFWS 2002). River and stream impoundments, groundwater pumping, and overuse of riparian areas have altered as much as 90 percent of the Southwestern Willow Flycatcher's habitat (USFWS 2002). Loss of cottonwood-willow riparian forests has had widespread impact on the distribution and abundance of bird species associated with that forest. Development itself may be tolerated if the habitat is left intact.

Because watercourses at LANL tend to be intermittent to ephemeral, riparian habitat is uncommon. There has been extensive degradation of the riparian zone along the Rio Grande caused by feral cattle grazing and flood control operations of Cochiti Lake. There are other riparian/wetland areas on LANL associated with canyon bottoms, the most significant one being Pajarito wetlands in the lower end of Pajarito Canyon. A major paved road traverses the wetlands area in Pajarito Canyon.

2.2.2 Ecological Risk

There is no specific information on the impact of chemicals on Southwestern Willow Flycatcher.

2.2.2.1 Ecorisk Assessment

LANL completed two ecological risk assessments that included the Southwestern Willow Flycatcher between 1997 and 2009. The ecological risk assessment process involves using computer modeling to assess potential effects to animals from COPCs that have been detected in the environment. The ecological risk assessments concluded that, in general, there is a small potential for effects to Southwestern Willow Flycatcher from COPCs (Gonzales et al. 1998; Gonzales et al. 2009).

An ecotoxicological risk assessment for the Southwestern Willow Flycatcher, centered on the Pajarito wetlands, found that between 7 and 16 percent of 100 hypothetical nest sites examined had hazard indices >1.0 and <10.0, depending on the foraging scenario (Gonzales et al. 1998). This indicates a small potential for impacts from chemicals. The primary chemicals driving the risk scenario were pentachlorophenol, aluminum, radium-226, calcium, and thorium-228. Aluminum, radium, and thorium are naturally occurring substances in northern New Mexico.

2.2.3 Disturbance

2.2.3.1 Pedestrians and Vehicles

There is no specific information on the reactions of Southwestern Willow Flycatchers to pedestrians and vehicles available. The recovery plan for the Southwestern Willow Flycatcher recommends providing protected areas, reducing unpredictable activities providing visual barriers, and reducing noise disturbance (USFWS 2002).

2.2.3.2 Aircraft

There is no specific information on the reaction of Southwestern Willow Flycatchers to aircraft available.

LANL lies within restricted airspace and planes infrequently fly less than 609 m (2,000 ft) above ground level. The County of Los Alamos operates an airport along the northern edge of LANL. The airport is located on the southern rim of Pueblo Canyon. Most flights approach and depart to the east of the airport, over the Rio Grande.

2.2.3.3 Explosives

There is no specific information on the reaction of Southwestern Willow Flycatchers to explosives detonation available. The Southwestern Willow Flycatcher AEI is not located close to any explosives testing sites at LANL.

2.2.3.4 Other Sources of Noise

LANL biological resources SMEs do not have good information on the effects of noise, including machinery operation, on Southwestern Willow Flycatchers. However, Southwestern Willow Flycatchers are probably not as sensitive to disturbance as some other threatened or endangered species (USFWS 2002). For a description of noise levels at LANL, see Part I, Section 2.2.3.

2.2.3.5 Artificially Produced Light

There is no information on the effects of artificially produced light on Southwestern Willow Flycatchers available. Under the Los Alamos County Code, commercial site development plans are reviewed to ensure that lighting serves the intended use of the site while minimizing adverse impacts to adjacent residential property (Section 16-276). Section 16-276 of the County Code includes light source measurement limitations by zoning district. The code allows off-site light to be 0.5 fc in residential areas. By comparison, full moonlight measures 0.1 fc, and a crescent moon was measured at 0.01 fc.

3.0 AEI GENERAL DESCRIPTION FOR SOUTHWESTERN WILLOW FLYCATCHER

The AEI consists of two types of areas—core and buffer. Core areas represent wetland areas with suitable vegetation for nesting, primarily dense willows. The buffer area is the area within 100 m (328 ft) of core areas. The Southwestern Willow Flycatcher AEI on LANL consists of two separate core areas. For purposes of this site plan, both core areas and associated buffers are considered one AEI unit.

3.1 Method for Identifying the Southwestern Willow Flycatcher AEI

The core areas were defined by the presence of riparian habitat and suitable wetland vegetation. These areas were identified in 1994 during a survey of wetlands at LANL and mapped using a global positioning system receiver. Wetlands without stands of dense willows at least 2 m (7 ft) tall and 30 m (98 ft) wide were not included in the AEI. The buffer area is the area within 100 m (328 ft) of the core areas.

3.2 Location of the Southwestern Willow Flycatcher AEI

LANL has one AEI for Southwestern Willow Flycatcher. It is composed of two core areas with associated buffers. The AEI core areas are located in the bottom of Pajarito Canyon, on the eastern side of LANL adjacent to Pajarito Road and State Road 4. The boundaries of the Southwestern

Willow Flycatcher AEI are maintained in the biological resources program GIS database at LANL.

4.0 AEI MANAGEMENT

4.1 Overview

This AEI management section provides guidelines for LANL operations to reduce or eliminate the threats to the Southwestern Willow Flycatcher from 1) habitat alterations that reduce habitat quality and 2) disturbance of breeding or potentially breeding flycatchers. Habitat alterations are considered for all AEIs and for both core and buffer areas. Disturbance activities to flycatchers are considered only for occupied AEIs and only for impacts on core areas. Developed areas (see Part I, Section 2.3) with ongoing baseline levels of activities and are not suitable habitat for Southwestern Willow Flycatchers have different restrictions than undeveloped core or buffer areas. Therefore, the location of the disturbance activity within the AEI, the occupancy status of the AEI, and the type of activity all affect whether or not the activity is allowable. AEIs for different species may overlap, and an activity must meet the guidelines of all applicable site plans to be allowable. Protective measures are described as management practices that should be followed when working in AEIs.

4.2 Definition and Role of Occupancy in AEI Management

Summary: The occupancy status of an AEI affects what disturbance activities are allowable in different areas (core, buffer, developed) of the AEI. The Southwestern Willow Flycatcher AEI is considered occupied during May 15 through September 15 or until the surveys show the AEI to be unoccupied. See the Activity Table (Table 2, Section 4.5.2) for restrictions on occupied undeveloped core and buffer areas, and Part I, Section 2.3 for restrictions on developed areas.

Occupancy simply refers to whether or not an AEI is occupied during a species' period of sensitivity. For Southwestern Willow Flycatchers, LANL biological resources SMEs are primarily concerned with protecting the birds from disturbance during the breeding season. Because individuals may colonize suitable habitat, the Southwestern Willow Flycatcher AEI is treated as though it is occupied from May 15 through September 15 or until surveys show an AEI to be unoccupied. Southwestern Willow Flycatcher surveys are conducted during May, June, and July. Because Southwestern Willow Flycatchers migrate south for the winter, the AEI is treated as unoccupied from September 16 to May 14.

The occupancy status of an AEI affects what activities are allowable in the AEI. Although activities causing habitat alterations are always restricted, disturbance activities are restricted only in occupied AEIs. Table 2 provides dates and levels of disturbance activities allowable in the occupied Southwestern Willow Flycatcher AEI under the guidelines of this site plan. The dates in Table 2 indicate the time period during which the activity is restricted. Contact a LANL biological resources SME to find out the current occupancy status of an AEI (http://int.lanl.gov/environment/bio/controls/index.shtml).

4.3 Introduction to AEI Management Guidelines

Summary: The habitat alterations section (Section 4.4) and the activities section (Section 4.5) gives the guidelines for habitat alteration and disturbance activities, respectively, for the

Southwestern Willow Flycatcher AEI. The flow chart (see Figure 1) provides a quick reference to determine what, if any, guidelines need to be consulted for a specific activity. Protective measures give management practices that should be applied when working or considering work in AEIs. LANL biological resources SMEs are available to answer questions and provide advice (http://int.lanl.gov/environment/bio/controls/index.shtml).

Sections 4.4 and 4.5 provide the guidelines for habitat alterations and allowable activities in AEI core and buffer areas. The flow chart (see Figure 1) provides a quick reference that should be used to determine whether a project or activity will affect an AEI and what sections of the site plan need to be consulted. The section on habitat alterations (Section 4.4) describes what and where habitat alterations are allowed under the guidelines of this site plan. The section and table on allowable activities (Section 4.5 and Table 2) describe what, when, and where disturbance activities are allowed in occupied AEIs under the guidelines of this site plan. If an activity does not meet the restrictions given in the guidelines, the activity must be individually reviewed for ESA compliance. This site plan only provides guidelines for the Southwestern Willow Flycatcher AEI. If an activity is desired in an area with overlapping AEIs, all applicable site plans must be consulted. Section 4.6 describes management practices that should be applied when working or considering work in an AEI. LANL biological resources SMEs are available to help interpret site plans and answer questions (http://int.lanl.gov/environment/bio/controls/index.shtml).

4.4 Definition of and Restrictions on Habitat Alterations

4.4.1 Definition of Habitat Alterations

Habitat alteration includes any action that alters over the long-term the soil structure, vegetative components necessary to the species, prey quality and quantity, water quality, hydrology, or noise or light levels in undeveloped areas of an AEI. Long-term means the alteration lasts for more than one year. Habitat alteration includes any activity that removes vegetative components important to the Southwestern Willow Flycatcher (primarily trees and shrubs). An actual activity may take place outside of the AEI and will be considered habitat alteration if consequences of the activity have effects inside the AEI core.

The habitat components most important to flycatchers include vegetative structure, food quality and quantity, and disturbance levels, including noise and light. The thickets of certain trees and shrubs along wetlands are important because they provide roost sites and a suitable habitat for nesting and foraging.

4.4.2 Fuels Management Practices to Reduce Wildfire Risk

Thinning within undeveloped buffer areas may include trees of any size to achieve 7.6 m (25 ft) spacing between tree crowns. However, clear cutting is not allowed in undeveloped buffer areas. No fuels management practices are allowed in core areas. Habitat alterations including thinning are not restricted in developed areas. All fuels management activities in developed and buffer areas must follow the guidelines in the Activity Table (Table 2, Section 4.5.2) if the AEI is occupied.

4.4.3 Utility Corridors

Habitat alterations such as cutting down trees that threaten power lines are allowed within 8 m (26 ft) of either side of an existing utility line in all areas of an AEI (Trujillo and Racinez 1995).

New utility lines and utility lines requiring clearance of a right-of-way greater than 16 m (52 ft) total must be individually reviewed for ESA compliance. Disturbance activities must follow the guidelines given in the Activities Table for occupied AEIs.

4.4.4 Restrictions on Habitat Alterations

Summary: Habitat alterations other than the utility corridor maintenance described above are not allowed in undeveloped core areas under the guidelines of this site plan. Habitat alteration in buffers is limited. If a project or activity is planned that would alter habitat in an undeveloped core area, it must be individually evaluated for ESA compliance. Habitat alterations in a buffer area other than fuels management activities or utility corridor maintenance must be reported to a LANL biological resources SME for tracking (http://int.lanl.gov/environment/bio/controls/index.shtml).

4.5 Definition of and Restrictions on Disturbance Activities

4.5.1 Definition of Disturbance Activities

LANL biological resources SMEs considered five categories of activities that might cause disturbance in an AEI. Most of the categories were first identified in the document "Peregrine Falcon Habitat Management in the National Forests of New Mexico" prepared for the U.S. Forest Service (Johnson 1994). Other light production and other noise production were included to provide the most comprehensive list of activities possible, reducing the need for individual review of activities for ESA compliance. The categories of activities are people, vehicles, aircraft, other light production, and other noise production. The impact of explosives detonation on this species is not considered here because there are no explosives testing sites within 2 km (1.25 mi) of potential nesting habitat. Low, medium, and high levels of impact for these activities are considered here. The following categories of activities are restricted only in AEIs that are classified as occupied.

People—includes any entry of people into an AEI on foot.

- Low impact is the presence of three or fewer people per project and duration of one day or less during a breeding season.
- Medium impact is the exceedance of either the number of people or the duration criteria.
- High impact is the exceedance of both the number of people and the duration criteria.

Vehicles—includes the entry of any two-axle highway vehicle, all-terrain vehicle, or motorized machinery into an AEI by any route other than a paved road or an improved gravel road.

- Low impact is the presence of two or fewer vehicles per project and duration of one day or less during a breeding season.
- Medium impact is the exceedance of either the number of vehicles or the duration criteria.
- High impact is the exceedance of both the number of vehicles and the duration criteria.

Aircraft—includes the operation of any aircraft below an elevation of 600 m (2,000 ft) above the highest ground level in the local vicinity.

- Low impact is the presence of one single-engine airplane and duration of one day or less during a breeding season.
- Medium impact is the exceedance of either the number of aircraft or the duration criteria.
- High impact is the exceedance of both the number of aircraft and the duration criteria.

Any use of helicopters, jet airplanes, and propeller airplanes with two or more engines is classified as medium impact or above, depending on duration.

Other Light Production—includes any activity not previously listed that causes additional light to occur in an AEI core area (e.g., plans for construction of a new building at the edge of a developed area may call for lighting at night to facilitate nighttime work that impacts an undeveloped core area).

- Low impact is the increase of light intensity by up to 0.05 fc and a duration of one night or less per project per breeding season.
- Medium impact is the exceedance of either the intensity or duration criteria.
- High impact is the exceedance of both the intensity and duration criteria.

Measurements for increases in light are taken at the AEI core area boundary closest to the light source, if the source is outside the core, and at 10 m (33 ft) from the source if the source is inside the core. Light measurements for developed areas are taken at the edge of the developed area if the developed area is within an AEI core, or at the closest core boundary, if the developed area is outside of an AEI core.

Other Noise Production—includes any activity not previously listed except for explosives detonation that causes additional noise to occur in an AEI. For example, operation of machinery causes noise.

- Low impact is increasing noise levels in an AEI core by 6 dB(A) or less for one day or less per project per breeding season.
- Medium impact is the exceedance of either the level or the duration criteria.
- High impact is the exceedance of both the level and the duration criteria.

Measurements for increases in noise are taken at the AEI core boundary closest to the noise source if the source is outside the core, and at 10 m (33 ft) from the source if the source is inside the core. Noise measurements for developed areas are taken at the edge of the developed area if the developed area is within an AEI core, or at the closest core boundary if the developed area is outside of an AEI core.

4.5.2 Activity Table

Disturbance activities are of concern only when Southwestern Willow Flycatchers occupy an AEI. The AEI is always considered occupied between May 15 and September 15, or until surveys show the AEI to be unoccupied. The Southwestern Willow Flycatcher AEI is always considered unoccupied between September 16 and May 14, when flycatchers have migrated for the winter.

For occupancy status of an AEI after completion of surveys, contact a LANL biological resources SME (http://int.lanl.gov/environment/bio/controls/index.shtml).

Table 2. Restrictions on Activities in Undeveloped Occupied Southwestern Willow Flycatcher AEI

		Core	Buffer
Restrictions on Occupied Habitat			
People			
	Low	No Restrictions	No Restrictions
	Medium	May 15 to August 15	No Restrictions
	High	May 15 to September 15	No Restrictions
Vehicles			
	Low	May 15 to September 15	No Restrictions
	Medium	May 15 to September 15	No Restrictions
	High	May 15 to September 15	No Restrictions
Aircraft			
	Low	No Restrictions	No Restrictions
	Medium	May 15 to August 15	May 15 to August 15
	High	May 15 to September 15	May 15 to August 15
Other Light/Noise Production			
	Low	May 15 to September 15	No Restrictions*
	Medium	May 15 to September 15	No Restrictions*
	High	May 15 to September 15	No Restrictions*

*Noise or light production in the buffer is restricted if the activity would violate core area restriction on noise or light.

4.6 Protective Measures

Summary: This section provides a list of management practices to apply in the AEI.

- No wetland vegetation will be removed outside of developed areas.
- Appropriate erosion and runoff controls should be employed to reduce soil loss.
- Avoid unnecessary disturbance to vegetation (e.g., excessive parking areas or equipment storage areas, off-road travel, materials storage areas, crossing of streams or washes).
- Avoid removal of vegetation along drainage systems and stream channels.
- Avoid all vegetation removals not absolutely necessary.
- Appropriate erosion controls must be put in place and periodically checked throughout the life of any projects.
- All exposed soils must be revegetated as soon as feasible after disturbance to minimize erosion.

5.0 SOUTHWESTERN WILLOW FLYCATCHER AEI DESCRIPTION

5.1 Pajarito Canyon Southwestern Willow Flycatcher AEI

5.1.1 Allowable Habitat Alteration in the Buffer Area

Since the purpose of the buffer area is to help maintain the core area as suitable Southwestern Willow Flycatcher habitat, habitat alteration in the buffer area will be extremely limited. There are two areas in which restrictions on habitat alteration are relaxed.

1. The mesa top of Mesita del Buey. This mesa top can be developed as long as restrictions on impacts to the core area are met.

2. Pajarito Road within the AEI. Mowing of upland vegetation is allowed up to 5 m (15 ft) from Pajarito Road, or to the fence, if the fence is within 9 m (30 ft). Vegetation must cover the roadsides to prevent sediment runoff, so mowed plants should be at least 5 cm (2 in) high. LANL biological resources SMEs encourage the growth of willow throughout the AEI—even the area along Pajarito Road—to enhance habitat. If, within this area, it is absolutely necessary to remove new willow growth (i.e., to improve visibility for human safety), LANL biological resources SMEs recommend that only willows at or above the level of the roadway surface be mowed.

IV. AREA OF ENVIRONMENTAL INTEREST SITE PLAN FOR THE JEMEZ MOUNTAINS SALAMANDER

1.0 SPECIES DESCRIPTION—JEMEZ MOUNTAINS SALAMANDER

1.1 Status

The Jemez Mountains Salamander (*Plethodon neomexicanus*) was listed in New Mexico as endangered under the Wildlife Conservation Act of New Mexico in 2006 (NMDGF 2006). In September 2012 the USFWS proposed the Jemez Mountains Salamander as endangered under the ESA (FR 2012) and the final listing as endangered was on 10 September 2013 (FR 2013a)

1.2 General Biology

The Jemez Mountains Salamander is endemic to the Jemez Mountains of north-central New Mexico and is found in Los Alamos, Rio Arriba, and Sandoval counties (Stebbins and Riemer 1950). It is one of two endemic plethodontid salamanders that occur in New Mexico. It occurs predominantly at elevations between 2,130 to 3,430 m (6,988 to 11,254 ft) in mixed-conifer forest with greater than 50 percent canopy cover consisting mainly of Douglas fir (*Pseudotsuga menziesii* [Mirb.] Franco), blue spruce (*Picea pungens* Engelm.), Engelmann spruce (*Picea engelmannii* Parry ex Engelm.), white fir (*Abies concolor* [Gord. & Glend.] Lindl. ex Hildebr.), limber pine (*Pinus flexilis* James), ponderosa pine, and quaking aspen (*Populus tremuloides* Michx.). The ground surface in forest areas has (a) moderate to high volumes of large fallen trees and other woody debris, especially coniferous logs at least 25 cm (10 in) in diameter, particularly Douglas fir, which are in contact with the soil in varying stages of decay from freshly fallen to nearly fully decomposed; or (b) structural features, such as rocks, bark, and moss mats that provide

the species with food and cover. Underground habitat in forest or meadow areas contains interstitial spaces provided by (a) igneous rock with fractures or loose rocky soils, (b) rotted tree root channels, or (c) burrows of rodents or large invertebrates (Degenhardt et al. 1996; FR 2013b).

Plethodontid salamanders, which lack both lungs and gills, breathe through the mucous membranes in their mouth and throat and through their moist skin. The Jemez Mountains Salamander is completely terrestrial and does not use standing surface water for any life stage (FR 2012). Present in its habitat year-round, the Jemez Mountains Salamander spends most of its life underground, but can be found on the surface when conditions are warm and wet, approximately July through October. During this time, the Jemez Mountains Salamander can be found under rocks, bark, and moss mats and inside and under logs (Ramotnik 1986, Everett 2003). The Jemez Mountains Salamander eats invertebrates, including ants, mites, and beetles, and is thought to lay its eggs underground (FR 2013b).

1.3 Threats

Principal threats to habitat include historical fire exclusion and suppression and severe wildland fires; forest composition and structure conversions; post-fire rehabilitation; forest and fire management; roads, trails, and habitat fragmentation; recreation; and disease (FR 2012).

2.0 IMPACT OF HUMAN ACTIVITIES

2.1 Introduction

Primary threats to the Jemez Mountains Salamander on LANL property are impacts to habitat quality or destruction of individual salamanders caused by LANL or Los Alamos County operations. Forested LANL property is also subject to impacts from severe wildland fire and wildfire suppression.

2.2 Impacts on Habitat Quality

2.2.1 Development

Property at LANL varies from remote isolated land to heavily developed and/or industrialized. Most of the large developed areas at LANL are found on mesa tops, generally in the northern and western portion of LANL. The areas of Jemez Mountains Salamander habitat currently most impacted by development occur in Los Alamos Canyon. There is a secondary paved road (West Road) in the bottom of the canyon that exits the canyon on the north-facing slope through Jemez Mountains Salamander habitat. The canyon bottom also contains a recreational ice rink operated by Los Alamos County on an inholding owned by Los Alamos County. Development that reduces the occurrence of primary constituent elements of Jemez Mountains Salamander in core habitat would likely have a negative impact on the species.

2.2.2 Pedestrians and Vehicles

Many canyon bottoms and mesa tops at LANL have dirt roads traversing them. Most of these roads are gated; however, many of these roads are accessible to LANL employees and the public on foot or by bike. Some areas, such as Los Alamos Canyon, are frequently used by hikers and dog owners on active and historic trails which traverse the canyon, through Jemez Mountains

Salamander habitat in places. Maintenance of roads and trails in the habitat may have a negative impact on the species.

2.2.3 Severe Wildland Fire and Wildfire Suppression

Stand-replacing wildfires significantly change forest composition and structure, and reduce canopy cover. Even ground wildfires may reduce the volume of fallen logs and large woody debris. Large areas of historic Jemez Mountains Salamander habitat have been impacted by stand-replacing wildfires associated with current forest stocking conditions, drought, and high temperatures (FR 2012). Forested habitats on LANL are also subject to severe wildland fires. To mitigate wildfire risks, some areas of LANL have been treated for fuels reduction and creation of fuel breaks both pre-emptively and during active wildfire suppression. Both wildfires and wildfire suppression activities can negatively impact the primary constituent elements of Jemez Mountains Salamander core habitat.

2.3 Impacts on Individual Salamanders

2.3.1 Disease

The amphibian pathogenic fungus *Batrachochytrium dendrobatidis* (Bd) was found in a wild-caught Jemez Mountains Salamander in 2003 (Cummer et al. 2005) on the east side of the species' range and again in another Jemez Mountains Salamander in 2010 on the west side of the species' range (FR 2012). Bd causes the disease chytridiomycosis, whereby the Bd fungus attacks keratin in amphibians. In adult amphibians, keratin primarily occurs in the skin. The symptoms of chytridiomycosis can include sloughing of skin, lethargy, morbidity, and death. Chytridiomycosis has been linked with worldwide amphibian declines, die-offs, and extinctions, possibly in association with climate change (Pounds et al. 2006). Chytridiomycosis may be a threat to the Jemez Mountains Salamander because this disease is a threat to many other species of amphibians and the pathogen has been detected in the Jemez Mountains Salamander (FR 2012).

As part of a cooperative study with the New Mexico Department of Game and Fish between 2007 and 2013, various amphibian species including the canyon tree frog (*Hyla arenicolor*), western chorus frog (*Pseudacris triseriata*), Woodhouse's toad (*Anaxyrus woodhousii*), tiger salamander (*Ambystoma tigrinum*), and Jemez Mountains Salamander were tested for Bd infection at LANL. To date, all sampling has been negative for Bd infection (Fresquez et al. 2013).

2.3.2 Destruction of Individual Salamanders

During periods of the year when Jemez Mountains Salamander are on the soil surface, when conditions are warm and wet (generally July to October), they are vulnerable to injury and mortality from soil-disturbing activities, including operation of heavy equipment in core habitat. They also are at risk to be found and collected by people.

3.0 AEI GENERAL DESCRIPTION FOR JEMEZ MOUNTAINS SALAMANDER

The AEI consists of two areas, a core area and a buffer area. The core habitat is defined as suitable habitat where the Jemez Mountains Salamander occurs or may occur at LANL. The core habitat consists of sections of north-facing slope that contain the required micro-habitat to support Jemez

Mountains Salamander. The buffer area is 100 m (328 ft) wide extending outward from the edge of the core area.

3.1 Method for Identifying a Jemez Mountains Salamander AEI

The first step in identifying potential Jemez Mountains Salamander at LANL was to use a GIS to model habitat. Early modeling efforts by Hathcock (2008) identified areas of potential habitat and that model was further refined. The following parameters were modeled in the GIS:

- Elevation: 7,000 ft (2,150 m) and above
- Slope: Greater than 20 degrees
- Aspect: north-facing +/- 20 degrees
- Land cover: Mixed conifer
- Land use: Undeveloped
- Modeled habitat is only selected if it is greater than five contiguous 30 × 30 m (98 × 98 ft) pixels in size

Once this habitat layer was developed, a second layer was modeled that examined the level of shade in the habitat, also known as an illumination index. Since the Jemez Mountains Salamander needs cool moist conditions, an illumination index model would further highlight areas where this habitat type may occur or further reinforce the areas selected by the GIS modeling. The illumination index describes the amount and extent of solar radiation reaching the Earth's surface at a given point. This takes into account the topography that may cast shadows. The illumination model was developed using the 5 m (16 ft) resolution digital elevation model hillshade and using the Surface toolbox in ArcToolbox (Environmental Science Research Institute, Redlands, California) using the highest height of the sun on June 21 at 1:00 pm, altitude of 74.4 and Azimuth of 178.4, when the sun would be at its maximum height. These procedures were based on work done by Reilly et al. (2009).

Once this modeling was complete, LANL biological resources SMEs performed field validation to verify the suitability of the modeled habitat. The goal was to verify that mixed conifer was still the dominant cover class in the selected area. The GIS analysis used data from a landcover map created by McKown et al. (2003). There have been changes in habitat since this landcover map was published from fire and extreme drought effects. Since LANL is on the extreme edge of Jemez Mountains Salamander lower elevational range, a key component in this part of its range is soil moisture content. During field validation, evidence of a moist mixed conifer habitat versus a dry mixed conifer habitat was noted. One of the key indicators used to delimit areas of moist versus dry mixed conifer during the field validation was the presence of white fir (Evans et al. 2011) combined with a high canopy cover.

Field validation of the model occurred in May 2013, or decisions were based on earlier field visits to the sites from other projects. Each field validation consisted of LANL biological resources SMEs walking down all of the modeled habitat polygons to look for the presence of indictor features. If a polygon of modeled habitat contained white fir, indicating a moist wet conifer type habitat, a high canopy closure, and other signs of high habitat quality such as dead logs, moss or

other areas that could be used as cover by the Jemez Mountains Salamander, then the polygon was marked for retention in the final core habitat. Polygons that did not contain the necessary habitat requirements were omitted.

After the field validation was complete, the final core habitat boundaries that LANL would recognize were hand digitized using ArcGIS (Environmental Science Research Institute, Redlands, California) by LANL biological resources SMEs in and around the validated modeled polygon and areas between polygons if appropriate. The final identified core habitat at LANL occurs on the north-facing slopes of canyons. Toward the rim of the canyon the core boundaries end where the mixed conifer ends. In the canyon bottoms the core boundary extends to the edge of the stream channel. The upstream and downstream core boundaries end where the mixed conifer ends. A buffer habitat was extended around the core to a distance of 100 m (328 ft) outward. The LANL Fenton Hill satellite facility in the Jemez Mountains off of New Mexico Highway 126 is on land leased to DOE by the Santa Fe National Forest. The entire footprint is considered to be developed core habitat for the Jemez Mountains Salamander, since proposed critical habitat is adjacent to the facility.

3.2 Location and Number of Jemez Mountains Salamander AEIs

The identified Jemez Mountains Salamander core habitats were grouped by canyon system into AEIs, which contain contiguous and noncontiguous habitat areas. The largest contiguous section of habitat at LANL is in Los Alamos Canyon. There are two noncontiguous areas of habitat in Two-mile Canyon, four in Pajarito Canyon, one contiguous area in Cañon de Valle, and the entire Fenton Hill facility.

4.0 AEI MANAGEMENT

4.1 Overview

This AEI management section provides guidelines for LANL operations to reduce or eliminate the threats to the Jemez Mountains Salamander from habitat alterations that reduce habitat quality. Habitat alterations are considered for all AEIs and for both core and buffer areas. Developed areas that have ongoing baseline levels of activities and are not suitable habitat for Jemez Mountains Salamander have different restrictions than undeveloped core or buffer areas. AEIs for different species may overlap, and an activity must meet the guidelines of all applicable site plans to be allowable. Protective measures are described as management practices that should be followed when working in AEIs.

4.2 Definition and Role of Occupancy in AEI Management

Occupancy simply refers to whether or not an AEI is occupied by the Jemez Mountains Salamander. The Los Alamos Canyon AEI is known to be occupied based on past surveys. Surveys for the Jemez Mountains Salamander are known to have a very low detection rate for occupied areas, so at LANL all AEIs are assumed to be occupied at all times. If needed, site-specific surveys will be conducted by federally permitted LANL biological resources SMEs.

4.3 Definition and Role of Developed Areas in AEI Management

Developed areas include all building structures, paved roads, improved gravel roads, and paved and unpaved parking lots. The majority of Jemez Mountains Salamander core habitat is in undeveloped areas, except for the satellite facility at Fenton Hill and a small amount of habitat in Los Alamos Canyon where West Road crosses the habitat. Generally, developed areas will not have restrictions; however, some of the undeveloped sections within the footprint of Fenton Hill may have restrictions because they may contain Jemez Mountains Salamanders when they move to the surface between July and October. Any project that occurs within developed core habitat will be evaluated by LANL biological resources SMEs for ESA compliance.

4.4 General Description of Core and Buffer Areas and Allowable Area Development

The purpose of buffer areas is to protect core areas from habitat degradation. The current levels of development in buffer and core areas represent baseline conditions for this site plan. No further development is allowed in the core area under the guidelines of this site plan. Any development in a buffer area will be reviewed by LANL biological resources SMEs to ensure that there are no impacts to the core habitat.

4.5 Emergency Actions

If safety and/or property are immediately threatened by something occurring within an AEI (for example, wildfire, water line breakage, etc.) please contact a LANL biological resources SME (1-505-665-3366) as soon as possible. If the emergency occurs outside of regular business hours, contact the Emergency Management Office (1-505-667-6211). This office will then communicate with the appropriate LANL personnel.

4.6 Introduction to AEI Management Guidelines

Section 4.7 provides the guidelines for habitat alterations and allowable activities in AEI core and buffer areas. It describes what and where habitat alterations are allowed under the guidelines of this site plan. If an activity does not meet the restrictions given in the guidelines, the activity must be individually reviewed for ESA compliance. This site plan only provides guidelines for the Jemez Mountains Salamander AEIs. If an activity is desired in an area with overlapping AEIs, all applicable site plans must be consulted. AEI maps show the location of all AEIs in an area. LANL biological resources SMEs are always available to help interpret site plans and answer questions (http://int.lanl.gov/environment/bio/controls/index.shtml).

4.7 Definition of and Restrictions on Habitat Alterations

4.7.1 Definition of Habitat Alterations

Habitat alteration includes any action that alters the soil structure, vegetative components necessary to the species, water quality, or hydrology in undeveloped areas of an AEI. An actual activity may take place outside of the AEI and will be considered habitat alteration if consequences of the activity have effects inside the AEI core. Habitat alterations would also include soil pits for soil samples deeper than 15 cm (6 in) using either hand or mechanized augers. Any activity that might disturb the soil will need to be reviewed by LANL biological resources SMEs.

The habitat components most important to the Jemez Mountains Salamander include soil structure and vegetative structure. The forest structure within an area designated as a Jemez Mountains Salamander AEI is important because it provides the necessary moist, cool microclimate.

4.7.2 Fuels Management Practices to Reduce Wildfire Risk

One of the primary threats to the Jemez Mountains Salamander is wildfire (FR 2012), but they also require habitat with a high canopy cover which makes fuels reduction challenging. Within undeveloped core areas, thinning trees to a level of 80 percent canopy cover or higher is approved. Trees may not be thinned below 80 percent canopy cover without further ESA review by LANL biological resources SMEs. Large logs on the ground should be left in place and not chipped. Understory thinning that does not reduce total canopy cover below 80 percent is permitted. Large trees that are felled should be left as large logs on the ground. Smaller trees and understory shrubs that may be thinned should be dispersed and left on-site to aid in soil moisture retention. Thinning activities should not occur during the rainy season between July to October (or when freezing temperatures begin, whichever comes first) when the Jemez Mountains Salamander is found on the surface.

In buffer areas, thinning of trees can occur to the current LANL-approved prescription level (LAAO 2000). LANL biological resources SMEs are available to provide guidance and mark trees for thinning (http://int.lanl.gov/environment/bio/controls/index.shtml).

4.7.3 Utility Corridors

Habitat alterations such as cutting down trees that threaten power lines are allowed within 8 m (26 ft) of either side of an existing electrical utility line at LANL under existing guidelines and engineering controls (Hathcock 2013). This level is approved in all areas of an AEI. New utility lines and utility lines requiring clearance of a right-of-way greater than 16 m (52 ft) total in core habitat must be individually reviewed for ESA compliance.

4.7.4 Restrictions on Habitat Alterations

Habitat alterations other than the fuels management practices and utility corridor maintenance described above are not allowed in undeveloped core areas under the guidelines of this site plan. If a project or activity is planned that would alter habitat in an undeveloped core area, it must be individually evaluated for ESA compliance. Habitat alterations in buffer areas must be reviewed by LANL biological resources SMEs to ensure that there are no impacts to core habitat.

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APPENDIX

Table A-1. The percentage of each food type found in Mexican Spotted Owl food remains at LANL

Species	Relative Abundance
Neotoma spp.	26.22
Peromyscus spp.	10.22
Microtus spp.	4.44
Gophers	4.89
Bats	5.78
Chipmunks	0.89
Rabbits	12.89
Shrews	1.33
Small Mammal	1.33
Medium Mammal	1.78
Medium Bird	8.00
Small Bird	4.89
Nocturnal Birds	0.89
Reptiles	4.89
Arthropods	11.56

Table A-2. Preliminary light measurements in ftc for Mexican Spotted Owl site plan

		Distance from Source			
	Source (street light)	5 m	10 m	15 m	20 m
ftc	3.70	2.28	1.20	0.62	0.32

K-2, U.S. Fish & Wildlife Concurrence
(Biological Assessment of Jemez Mtn Salamander Site Plan)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Mexico Ecological Services Field Office
2105 Osuna NE
Albuquerque, New Mexico 87113
Phone: (505) 346-2525 Fax: (505) 346-2542

December 9, 2013

Cons. #02ENNM00-2014-I-0014

Geoffrey L. Beausoleil, Acting Manager
National Nuclear Security Administration, Los Alamos Field Office
Department of Energy
Los Alamos, New Mexico 87544

Dear Mr. Beausoleil:

Thank you for your biological assessment entitled, "Biological Assessment of the Effects of Implementing the Jemez Mountains Salamander Site Plan on Federally Listed Threatened and Endangered Species at Los Alamos National Laboratory" (BA); the request for informal consultation and conferencing received on July 25, 2013 and supplemental information supplied in the "Jemez Mountains Salamander (*Plethodon neomexicanus*) Los Alamos National Laboratory (LANL) Site Plan" (Site Plan); and emails dated November 19 and December 3, 2013. The Department of Energy (DOE) requested concurrence with the determination of effects for the endangered Jemez Mountains salamander (*Plethodon* neomexicanus) (salamander) pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. § 1531 *et seq.*). Your proposed action consists of implementing the Site Plan, and includes of the incorporation of this Site Plan into LANL's Habitat Management Plan (HMP). The HMP was consulted upon in 1999 (Consultation #2-22-981-336) as the primary mechanism to ensure compliance with the ESA at LANL. The actions described in the Site Plan and analyzed in the BA, and supplemental emails are hereby incorporated by reference. You determined that implementing the Site Plan "may affect, is not likely to adversely affect" the salamander, and includes placing restrictions on certain types of work in areas identified as core habitat for the salamander on LANL property with the purpose of ensuring that effects to the salamander from those actions identified in the Site Plan are insignificant and discountable.

The Site Plan does not include any areas within designated salamander critical habitat, indicating that no critical habitat will be affected. The Site Plan has modeled and field validated the model to identify the areas on LANL property with the highest potential to be occupied by salamanders based on habitat features for the salamander. Each area identified by the modeling is termed "Area of Environmental Interest" (AEI) and consists of a "core area" and a "buffer area". The core area habitat is defined as suitable habitat where the salamander occurs or may occur at LANL. The core area habitat consists of sections of north-facing slope that contain the required

micro-habitat to support salamanders. The buffer area is 328 feet (100 meters) wide extending outward from the edge of the core area. Only the Los Alamos Canyon AEI is known to be occupied based on surveys. Surveys for the salamander are known to have a very low detection rate for occupied areas and DOE has assumed that all AEIs at LANL are occupied at all times by the salamander.

Within the Site Plan, DOE has assessed activities that could cause habitat alteration and includes any action that alters the soil structure, vegetative components necessary to the species, water quality, or hydrology in undeveloped areas of an AEI. If an activity were to take place outside of the AEI the activity will be assessed if it will have effects inside the AEI core. Within the core areas, only activities specified within the Site Plan and those that have no effect in the core areas (e.g. no habitat alterations or effects within the core areas) will be conducted without further consultation with the Service. Habitat alterations also include soil pits for soil samples deeper than 6 inches (15.2 centimeters) using either hand or mechanized augers. Within the Site Plan, DOE is proposing fuels management practices to reduce wildfire risk and maintenance of utility corridors within the AEIs. The likelihood that salamanders may be affected by the actions in the Site Plan is very low. To ensure that effects to the salamander are insignificant and discountable, the Site Plan incorporates the following conservation measures as restrictions to the identified work:

Fuels Management Practices to Reduce Wildfire Risk

a. Within undeveloped core areas, thinning trees to a level of 80% canopy cover or higher may occur; tree thinning below 80% canopy cover is not part of the action under this consultation.
b. Large logs on the ground will be left in place and not chipped.
c. Large trees that are felled will be left as large logs on the ground
d. When appropriate, smaller trees and understory shrubs that may be thinned will be dispersed and left on-site to aid in soil moisture retention.
e. In buffer areas, thinning of trees may occur to the current LANL-approved prescription level; clear-cutting will not occur.
f. Thinning activities will not occur during the rainy season when salamanders are surface active, between July 1 – October 31. Thinning activities may occur earlier in October if freezing temperatures are present.
g. In the unlikely event that a salamander is observed surface active during thinning activities, all activities shall cease, and the Service will be notified.

Utility Corridors

a. Cutting trees that threaten power lines may occur within 26 feet (8 meters) of either side of an existing utility line at LANL
b. New utility lines and utility lines requiring clearance of a right-of-way greater than 52 feet (16 meters) total in core habitat is not part of the action under this consultation.

Habitat alterations other than the fuels management practices and utility corridor maintenance described above will not occur in undeveloped core areas under the guidelines of the Site Plan or this consultation. The Service concurs with DOE's determination regarding the salamander for the following reasons:

Within the Site Plan, DOE has placed the above detailed restrictions to ensure that any effects to the salamander and its habitat remain insignificant and discountable. Canopy cover will remain at 80% or greater in undeveloped core areas and fire management actions will occur outside of the salamander surface activity period. Maintaining utility line corridors in areas with existing infrastructure (the utility lines) by removing individual hazard trees is not expected to have any measurable effect on salamanders or their potential habitat. Consequently, we concur that potential effects to the salamander from the proposed action will be insignificant and discountable.

This concludes section 7 consultation regarding the proposed action. If monitoring or other information results in modification or the inability to complete all aspects of the proposed action, consultation should be reinitiated. Please contact the Service if: 1) future surveys detect listed, proposed or candidate species in habitats where they have not been previously observed; 2) the proposed action changes or new information reveals effects of the proposal to listed species that have not been considered in this analysis; or 3) a new species is listed or critical habitat designated that may be affected by the action.

Thank you for your concern for endangered and threatened species and New Mexico's wildlife habitats. In future correspondence regarding this project, please refer to consultation #02ENNM00-2014-I-0014. If you have any questions, please contact Michelle Christman of my staff at (505) 761-4715.

Sincerely,

for Wally Murphy
Field Supervisor

cc:
Wildlife Biologist, Cuba Ranger District, Cuba, NM (Attn: Ramon Borrego)
Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico

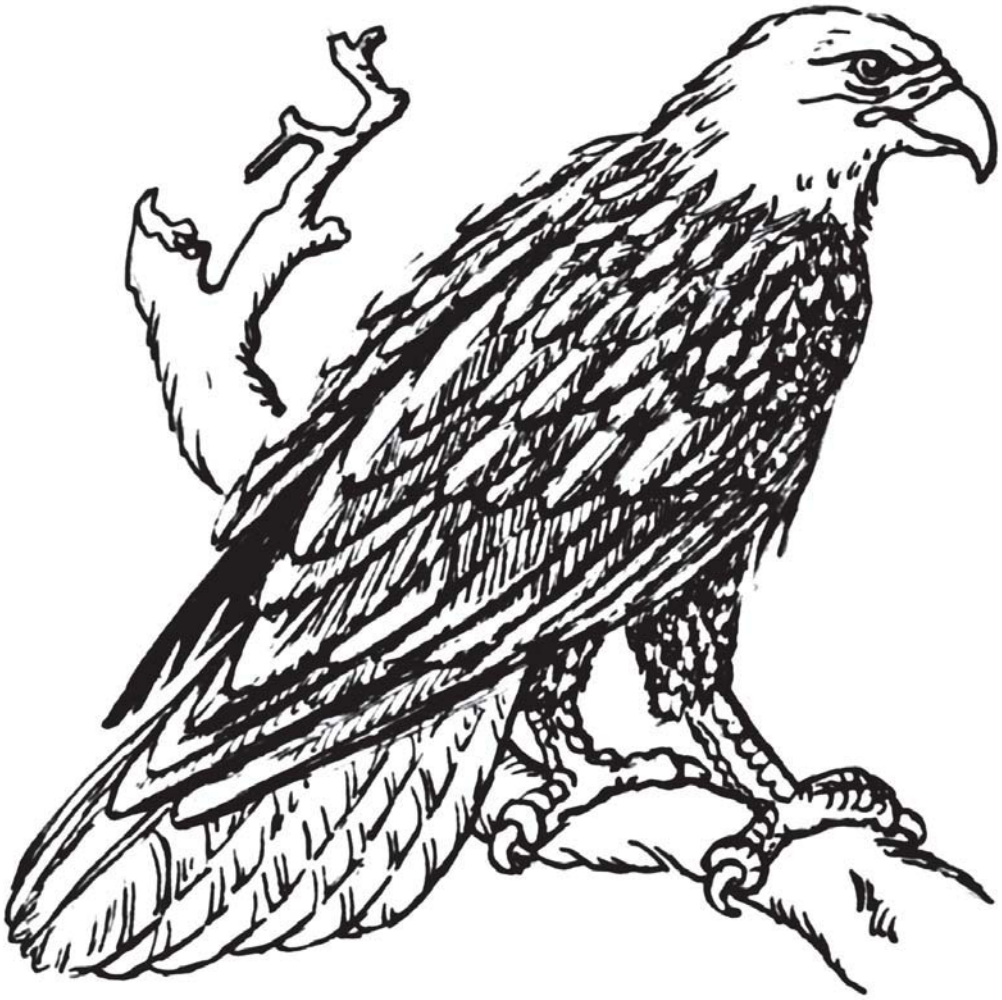
K-3, TA-3 and TA-60 IPac Trust Resource Report

U.S. Fish & Wildlife Service

MSGP

IPaC Trust Resource Report

Generated July 27, 2015 07:29 PM MDT



US Fish & Wildlife Service

IPaC Trust Resource Report

Project Description

NAME

MSGP

PROJECT CODE

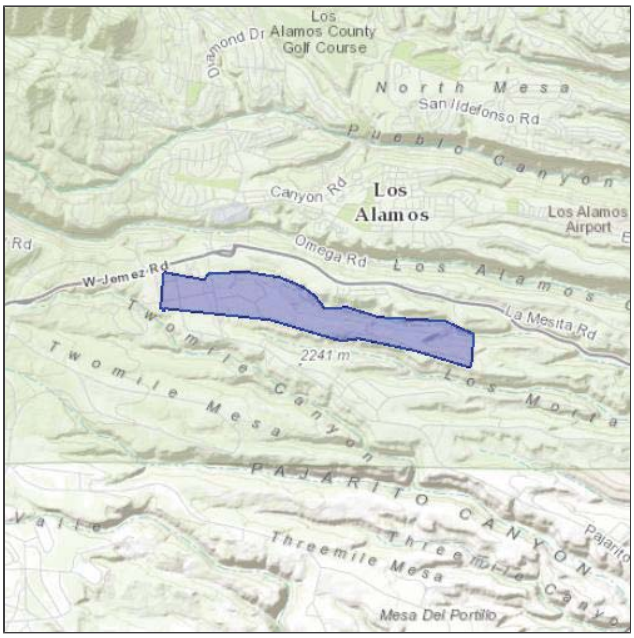
LXATM-TI5EJ-BAJEQ-3NC5E-SOGYTE

LOCATION

Los Alamos County, New Mexico

DESCRIPTION

Facilities that discharge to Sandia Canyon within TA-3 and TA-60. Industrial facilities subject to the MSGP. July, 2015.



U.S. Fish & Wildlife Contact Information

Species in this report are managed by:

New Mexico Ecological Services Field Office
2105 Osuna Road Ne
Albuquerque, NM 87113-1001
(505) 346-2525

Endangered Species

Proposed, candidate, threatened, and endangered species that are managed by the Endangered Species Program and should be considered as part of an effect analysis for this project.

This unofficial species list is for informational purposes only and does not fulfill the requirements under Section 7 of the Endangered Species Act, which states that Federal agencies are required to "request of the Secretary of Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action." This requirement applies to projects which are conducted, permitted or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can be obtained by returning to this project on the IPaC website and requesting an Official Species List from the regulatory documents section.

Amphibians

Jemez Mountains Salamander Plethodon neomexicanus — **Endangered**

CRITICAL HABITAT
There is **final** critical habitat designated for this species.

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=D019

Birds

Mexican Spotted Owl Strix occidentalis lucida — **Threatened**

CRITICAL HABITAT
There is **final** critical habitat designated for this species.

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B074

Southwestern Willow Flycatcher Empidonax traillii extimus — **Endangered**

CRITICAL HABITAT
There is **final** critical habitat designated for this species.

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B094

Yellow-billed Cuckoo Coccyzus americanus — **Threatened**

CRITICAL HABITAT
There is **proposed** critical habitat designated for this species.

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B06R

Mammals

New Mexico Meadow Jumping Mouse Zapus hudsonius luteus — **Endangered**

CRITICAL HABITAT
There is **proposed** critical habitat designated for this species.

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A0BX

Critical Habitats

Potential effects to critical habitat(s) within the project area must be analyzed along with the endangered species themselves.

There is no critical habitat within this project area

Migratory Birds

Birds are protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

Any activity which results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service (1). There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

You are responsible for complying with the appropriate regulations for the protection of birds as part of this project. This involves analyzing potential impacts and implementing appropriate conservation measures for all project activities.

Bald Eagle Haliaeetus leucocephalus — **Bird of conservation concern**
Season: Wintering
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B008

Bendire's Thrasher Toxostoma bendirei — **Bird of conservation concern**
Season: Breeding

Brewer's Sparrow Spizella breweri — **Bird of conservation concern**
Season: Migrating
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HA

Brown-capped Rosy-finch Leucosticte australis — **Bird of conservation concern**
Season: Wintering

Burrowing Owl Athene cunicularia — **Bird of conservation concern**
Season: Breeding

Cassin's Finch Carpodacus cassinii — **Bird of conservation concern**
Year-round

Flammulated Owl Otus flammeolus — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0DK

Fox Sparrow Passerella iliaca — **Bird of conservation concern**
Season: Wintering

Golden Eagle Aquila chrysaetos — **Bird of conservation concern**
Year-round
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0DV

Grace's Warbler Dendroica graciae — **Bird of conservation concern**
Season: Breeding

Juniper Titmouse Baeolophus ridgwayi — **Bird of conservation concern**
Year-round

Lewis's Woodpecker Melanerpes lewis — **Bird of conservation concern**
Year-round

Loggerhead Shrike Lanius ludovicianus — **Bird of conservation concern**
Year-round
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FY

Mountain Plover Charadrius montanus **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B078

Olive-sided Flycatcher Contopus cooperi **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0AN

Peregrine Falcon Falco peregrinus **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FU

Pinyon Jay Gymnorhinus cyanocephalus **Bird of conservation concern**
Year-round

Prairie Falcon Falco mexicanus **Bird of conservation concern**
Year-round
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0ER

Swainson's Hawk Buteo swainsoni **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B070

Williamson's Sapsucker Sphyrapicus thyroideus **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FX

Willow Flycatcher Empidonax traillii **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0F6

Refuges

Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. If your project overlaps or otherwise impacts a Refuge, please contact that Refuge to discuss the authorization process.

There are no refuges within this project area

Wetlands

Impacts to NWI wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes.

Project proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate U.S. Army Corps of Engineers District.

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

There are no wetlands identified in this project area

APPENDIX L

Procedures Referenced in the SWPPP

ENV-CP-QP-007	Revision: 10	Los Alamos NATIONAL LABORATORY EST. 1943
Effective Date: 09/30/15	Next Review Date: 09/30/18	

Environment, Safety, Health Directorate

Environmental Protection – Compliance Programs

Quality Procedure

Spill Investigations

Reviewers:

Name:	Organization:	Signature:	Date:
Brian M. Iacona	ENV-CP	Signature on File	08/13/15
Name:	Organization:	Signature:	Date:
Jacob W. Meadows	ENV-CP	Signature on File	08/28/15

Derivative Classifier: ☒ **Unclassified** ☐ **DUSA** **ENVPRO**

Name:	Organization:	Signature:	Date:
Gian A. Bacigalupa	ENV-CP	Signature on File	08/31/15

Approval Signatures:

Subject Matter Expert:	Organization:	Signature:	Date:
Jacob W. Meadows	ENV-CP, Program Lead	Signature on File	08/31/15
Responsible Line Manager:	Organization:	Signature:	Date:
Michael T. Saladen	ENV-CP, Team Leader	Signature on File	08/31/15
Responsible Line Manager:	Organization:	Signature:	Date:
Anthony R. Grieggs	ENV-CP, Group Leader	Signature on File	09/30/15

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History of Revisions

Document Number *[Include revision number, beginning with Revision 0]*	**Effective Date** *[Document Control Coordinator inserts effective date]*	**Description of Changes** *[List specific changes made since the previous revision]*
0	12/98	New Document.
1	06/00	Annual review, added Cerro Grande fire hazards
2	07/01	Annual review
3	06/03	Annual review
4	04/04	Annual review, changes to HCPs
5	02/07	Annual review, changes to reflect organizational restructure
6	07/08	Annual review
7	09/10	Biennial Review and revision
8	04/11	Removed prerequisites, added note re: on-call spill reporting.
9	07/13	Biennial review and revision, implemented new procedure format.
10	09/30/15	Biennial review and revision, implemented new procedure format. Controlled the updated LANL ENV-CP Unplanned Release Report.

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1.0 PURPOSE

This Environmental Protection Division – Compliance Programs Group (ENV-CP) procedure describes processes and implements requirements for spill investigations.

2.0 SCOPE

This procedure applies to all ENV-CP staff and personnel conducting spill investigations.

2.1 HAZARD REVIEW

The work described in this procedure is field work and has a **LOW hazard** rating as documented by submittal of a completed *ENV Low Hazard Verification form*.

3.0 RESPONSIBILITIES

The following personnel require training before implementing this procedure:

- ENV-CP staff and contract personnel who perform spill response and investigation.

Annual re-training to this procedure is required. Specific training requirements will be updated as needed.

The training method for this procedure is required reading and on-the-job training (OJT). The OJT is to be conducted by a Team Leader or person designated as Subject Matter Expert (SME) by the ENV-CP Group Leader. This training will be documented in accordance with ENV-DO-QP-115, *Personnel Training*.

Actions specified within this procedure, unless proceeded with "should" or "may," are to be considered mandatory (i.e., "shall", "will", "must").

3.1 PREREQUISITES

None

4.0 WORK PROCESSES

Responsibility is to assure the immediate mitigation and timely notification of appropriate regulatory organizations in the event of a spill or unplanned discharge that has or may affect the environment. Work requires frequent and unscheduled site visits to any area of the Laboratory during a spill or unplanned release as support staff for the on-scene Security and Emergency Operations (SEO) Incident Commander.

Specific activities associated with Spill Response and Investigation:

- Respond to the spill or unplanned release site;
- Report to the On-Scene SEO Incident Commander and Site Safety Officer;
- Receive site safety requirements;
- Provide decision support;
- Investigate the nature and extent of the spill or unplanned release;

- Evaluate the potential environmental impact to water quality;
- Report the occurrence to the regulatory agencies, if necessary; and
- Provide support to mitigation plan and implementation.

4.1 FIELD ACTIVITY

If the spill or unplanned discharge is determined to be a non-emergency event by SEO response, such as a release of potable water, perform the following steps:

Step	Action
1	Perform a site visit in coordination with the Facility Operations Director designee.
2	Assess potential environmental damage.
3	Provide mitigation measures and requirements.
4	Document the event.
5	Notify regulatory agencies and DOE, if necessary.
6	Facilitate collection of samples, if necessary.

For emergency response, perform the following steps:

Step	Action
1	Report to on-scene commander and await instructions.
2	Perform a site visit in coordination with SEO.
3	Adhere to access requirements as developed by the SEO Site Safety Officer and Incident Commander.
4	Identify and document the source and cause of the release.
5	Provide notification and written report if necessary.
6	Facilitate collection of samples if necessary and safe to do so.

If sample collection is required, contact the following sampling personnel:

- ENV-CP
  - NPDES outfall
  - Sanitary treatment solids
- WM-SVS
  - Wastes and chemical spills (liquid, solid, hazardous)
- ADEP Environmental Remediation Division
  - Surface water
  - Storm water runoff
  - Groundwater
  - Sediments

If WM-SVS will collect the required sample, complete a Request For Analysis (RFA), http://int.lanl.gov/environment/waste/sampling.shtml, to schedule sampling. Specify the analytical suite and turn-around time needed for the sample in the RFA.

4.2 COMMUNICATION

Take a cellular phone that will transmit from the location to be visited. Also take a contact pager to receive messages.

If cellular service is unavailable, use a portable radio set to the appropriate radio frequency.

If in a secure area where cell phone use is prohibited, use the radio. Be sure to have radio checked and authorized for use within secure areas or within the boundaries of the WFO FOD or WX Division. Government-owned cellular phones, with batteries removed, may be brought into the secure area but used only if approval is given by the SEO Incident Commander or FOD or designee. Rules of use for Smartphones and other mobile devices (BlackBerry, iPhones, iPads) can be found on the Computing Communications webpage for mobile devices, http://int.lanl.gov/computing/communications/mobile/index.shtml.

Radio or cellular contact must be established with a designated contact prior to leaving ENV-CP and upon arrival/departure at the site in accordance with ENV-DO-QP-100, *General Field Safety*.

The Incident Commander can make special communication exceptions.

All photography at LANL must adhere to P217, *Controlled Articles*.

Wastes generated from activities described in the procedure will be properly characterized, managed, and disposed in accordance with P409, *LANL Waste Management*, P930-1, *LANL Waste Acceptance Criteria*, and P403, *Environmental Risk Identification and Management*.

4.3 FACILITY MANAGEMENT WORK CONTROL REQUIREMENTS FOR FIELD ACTIVITIES

Most field activities performed by the ENV-CP spill response personnel are impacted by facility management work control requirements. Requirements vary between the respective Facility Operations Divisions (FODs) and therefore necessitate ENV-CP response personnel to acquire FOD approval for site access in advance of starting work activities. The exception to this is in response to emergency situations as support to SEO staff.

Should work be required to stop/pause, reference P101-18, *Procedure for Pause/Stop Work*, for guidance.

4.4 FACILITY MANAGEMENT-SPECIFIC ACCESS REQUIREMENTS

4.4.1 HIGH EXPLOSIVES AREAS

TA-16 and TA-11 high explosives areas have specific access requirements. Access inside the security gate requires annual site-specific training. Curricula #5243 must be assigned and all the training courses completed before arriving at TA-16. For access, (normal or after hours) contact the WFO FOD to ensure entry requirements are met and the activity is authorized for the Plan of the Day.

For access to WFO perimeter gates during normal working hours or after hours, contact TA-15 Access Control at 667-6742 and request permission to enter. A perimeter gate key must be picked up at the TA-15 Access Control office. Note that all outdoor firing will be suspended during entry.

For perimeter gates, prior notification for after-hours entry is also required by SOC. Perform the following steps:

Step	Action
1	Call SOC Los Alamos at 667-4437.
2	Identify yourself to the on duty officer or attendant.
3	Provide the following information: Group, color and make of vehicle (s), which perimeter gate you are entering, and approximate time of arrival and finally, length of stay.

Failure to notify security personnel in advance could result in a security violation against the visiting Team Member.

Provide notification to SOC Los Alamos at 667-4437 when leaving area.

For access to WX areas required during normal or after working hours, perform the following steps:

- Ensure the required security clearance (Q clearance) is held, and
- Contact the FOD or designee for entry requirements.

4.4.2 CHEMISTRY METALLURGY RESEARCH FACILITY ACCESS

For access to the Chemistry Metallurgy Research Facility, perform the following:

- Must have the required L or Q clearance to pass the security gate.
- If access into any of the buildings is necessary, contact CMR Operations Management or the FOD for an escort**.**
- If responding to an emergency with SEO, ENV-CP staff will be considered part of the SEO response team, met at the access gate, and escorted to the spill site.

4.4.3 TA-3-66 SIGMA FACILITY ACCESS

For access to the Sigma facility (TA-3-66), perform the following:

- For non-emergency responses, obtain prior site-specific training and authorization or contact the FOD for personnel escort and contact the FOD Deployed Environmental Professional.
- For emergency response with SEO, ENV-CP staff will be considered part of the SEO response team, met at the access gate, and escorted to the spill site. Contact the FOD to ensure they are aware of the incident.

4.5 REGULATORY SPILL REPORTING

If a spill is determined to be a threat to the environment or human health, regulatory and DOE notification may be necessary. Contacts and telephone numbers can be found on Attachment 1, ENV-CP Release Notification Phone List.

If a spill impacts a Solid Waste Management Unit (SWMU) or Area of Concern (AOC), contact ENV-CP and Environmental Remediation (ER) for possible additional notification requirements.

If ENV Division or designated SME personnel determine after a site inspection or verbal notification that a spill is non-reportable to DOE or applicable regulatory agencies, a LANL ENV-CP Unplanned Release Report must be completed (Attachment 2) and submitted to the ENV-CP SME for required documentation.

For ENV Division designated on-call personnel, follow guidance for spill reporting as described in ENV-DO-QP-101, *Environmental Reporting Requirements for Releases or Events*.

NOTE: On-call representatives are required to follow up in writing (email is sufficient) with the spills program lead regarding all releases during their on-call schedule. If no spills are reported in off-work hours, please confirm in writing with the spills program lead at the end of your on-call schedule.

For additional information concerning spill and unplanned discharge determination and notification requirements, contact the ENV-CP Water Quality Permitting and Compliance Team Leader.

5.0 DOCUMENT CONTROL/RECORDS MANAGEMENT

The following records generated as a result of this procedure are to be submitted in accordance with ADESH-AP-006 Records Management Plan.

- Field notebook documentation of the release including:
  - Time and date of the release
  - Time and date of ENV-CP notification
  - Location of the release
  - Source of the release(equipment, etc,)
  - Type of material released
  - Quantity of material released
  - If an impact to a watercourse or Potential Release Site occurred
  - Time release was stopped
  - Any immediate mitigating actions implemented to contain or control the release
- Any written report and verbal notification list generated should the release be deemed reportable.
- LANL ENV-CP Unplanned Release Report (Attachment 2) for non-reportable releases.

6.0 DEFINITIONS

AOC: Area of Concern

ER: Environmental Remediation

Field Work: Performance of Laboratory related activities in areas that are removed or isolated from an established populated base of operation (that is, where emergency support and medical assistance is not readily available.)

FOD: Facility Operations Division

NPDES: National Pollutant Discharge Elimination System

OJT : On the job training

PRS: Potential Release Site

SEO: Security and Emergency Operations

SOC Los Alamos: Security contractor for Los Alamos National Laboratory

SWMU: Solid Waste Management Unit

7.0 REFERENCES

None

8.0 ATTACHMENTS

Attachment 1- ENV-CP Release Notification Phone List

Attachment 2- LANL ENV-CP Unplanned Release Report

ATTACHMENT 1- ENV-CP RELEASE NOTIFICATION PHONE LIST

Los Alamos National Laboratory
ENV-CP
Release notification phone list
August 2015

Los Alamos National Laboratory

(1)	Security and Emergency Operations Emergency Management (SEO-EM)	667-6211
(2)	ENV-ES Group Office	665-8855
(3)	ENV-CP Group Office	667-0666
(4)	ENV-DO	667-2211
(5)	LANL Central Alarm Station (SOC-LA)	667-7080
	L.A. Fire Department	667-4055

New Mexico Environment Department

See Web address below

(1)	NMED Emergency Hotline (24 hours a day)	827-9329
(2)	NMED Non-Emergency Hotline (During business hours)	476-6000
	NMED Non-Emergency Hotline (Voicemail; 24 hours a day)	1(866) 428-6535
(3)	NMED Surface Water Quality Bureau	827-0187
	Erin Trujillo	827-0418
(4)	NMED Ground Water Quality Bureau	827-2900
	Greg Huey	827-6891
	Steven Huddleson	827-2936
	Gerald Knutson	827-2996
(5)	NMED Hazardous Waste Bureau	476-6000
	Ruth Horowitz	476-6025

U.S Environmental Protection Agency

(1)	US EPA Region 6 Spill Reporting (During business hours)	1(800) 887-6063
	Emergencies- Contact the NRC	1(800) 424-8802
(2)	Gladys Gooden-Jackson	1(214) 655-7494

U.S. Department of Energy

(1)	Gene Turner	667-5794

State Emergency Response Commission (SERC) Notification

New Mexico State Police	(505) 827-9300 (During business hours)
(Immediate Notification)	(505) 827-3476 (24 hours a day)
New Mexico Department of Homeland Security and Emergency Management (Follow-up Notification)	(505) 476-9600

National Response Center

U.S. Coast Guard National Response Center	1-800-424-8802

See NRC web address below for report form

New Mexico State Police

New Mexico State Police — (505)827-9300 (During business hours)
(505) 827-3476 (24 hours a day)

Local Emergency Planning Committee (LEPC) LAPD

Philmont Taylor — (505) 663-3511

On Call Environmental Contact for Releases
Group Representatives for Notifications to External Agencies

Name	Group	Work Phone	Pager	Cellular Phone	Email address
Jake Meadows	ENV-CP	606-0185	664-1333	231-0460	jmeadows@lanl.gov
Mike Saladen	ENV-CP	665-6085		699-1284	saladen@lanl.gov
Mark Haagenstad	ENV-CP	665-2014		699-1733	mph@lanl.gov
Tim Zimmerly	ENV-CP	664-0105	664-1237	699-7621	tzimmer@lanl.gov
Terrill Lemke	ENV-CP	665-2397		699-0725	tlemke@lanl.gov

Web addresses:
NMED home page http://www.nmenv.state.nm.us
National Response Center home page http://www.nrc.uscg.mil/Default.aspx
Reportable Quantities web page http://homer.ornl.gov/rq/

ATTACHMENT 2- LANL ENV-CP UNPLANNED RELEASE REPORT

Los Alamos National Laboratory
Environmental Compliance Programs (ENV-CP)
Unplanned Release Report

Form Completed By:	**Telephone:**	**Group:**

Spill Details — Spill Owner (Specify): ☐LANS, LLC ☐Subcontractor:

Date of Spill/Date Spill Discovered:

Location:

Material Spilled:
- ☐ Hydraulic Fluid
- ☐ Potable Water
- ☐ Diesel
- ☐ Anti-freeze/coolant
- ☐ Steam Condensate
- ☐ Lubricants/oils
- ☐ Refrigerant Oil
- ☐ Gasoline
- ☐ Other: _____

Volume Spilled: **Waste Volume Generated:**

Source of Spill:
Vehicle ID: _____
Equipment ID: _____
- ☐ Hydraulic Line
- ☐ Potable Water Line
- ☐ Fire Suppression System
- ☐ Fuel Tank
- ☐ Radiator
- ☐ Condensate Line
- ☐ Other: _____

Describe the spill response in chronological order. Include response personnel, steps taken to contain the spill, and steps/spill control equipment used to clean it up. Please indicate if corrective actions have been completed and describe actions taken to prevent spill recurrence:

Date Corrective Actions Completed: _____

Did the spill enter or impact any of the following? (Check as many as apply)
- ☐ RCRA Treatment Storage Disposal Facility
- ☐ RCRA Satellite Accumulation Area
- ☐ RCRA <90 Day Storage Area
- ☐ Floor Drain, if so please indicate affected facility _____
- ☐ Watercourse/drainage area, if so please indicate _____
- ☐ Solid Waste Management Unit/Area of Concern, if so please indicate _____
- ☐ None

Did the spill occur inside or outside a building? ☐ Inside ☐ Outside

Did the spill occur on: (Check as many as apply)
- ☐ Concrete
- ☐ Carpeted Floor
- ☐ Tile
- ☐ Wooden floor/deck
- ☐ Asphalt
- ☐ Graveled/Rocky Area
- ☐ Soil/Vegetated Area
- ☐ Other: _____

Samples Collected:
- ☐ None
- ☐ Water
- ☐ Soil
- ☐ Air
- ☐ Other: _____

If samples were collected, indicate analytical suite:

Certification

I certify that I am knowledgeable about the information on this form. The information, to my knowledge, is true, accurate, and complete.

Name of Certifying Official: **Organization:** **Date:**

Certification:

Completed by ENV-CP Personnel
Date Received: **Severity Index:** **Causal Analysis:**
☐ Non-Reportable
☐ Reportable

ENV-CP-Form 1009.0 06/2015

Return Completed Form to ENV-CP (jmeadows@lanl.gov)

EPC-DO-QP-101	Revision: **3**	Los Alamos NATIONAL LABORATORY EST.1943
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Environment, Safety, and Health Directorate

Environmental Protection and Compliance Division – Compliance Programs

Quality Procedure

Environmental Reporting Requirements for Releases or Events

Document Owner/Subject Matter Expert:

Name:	Organization:	Signature:	Date:
Brian Iacona	EPC-CP	Signature on File	4-27-17

Derivative Classifier: ☒ **Unclassified or** ☐ **DUSA ENVPRO**

Name:	Organization:	Signature:	Date:
Jacob Meadows	EPC-CP	Signature on File	5-2-17

Approval Signatures:

Subject Matter Expert:	Organization:	Signature:	Date:
Brian Iacona	EPC-CP	Signature on File	4-27-17
Responsible Line Manager:	Organization:	Signature:	Date:
Michael Saladen	EPC-CP, Team Leader	Signature on File	7-21-17
Responsible Line Manager:	Organization:	Signature:	Date:
Anthony Grieggs	EPC-CP, Group Leader	Signature on File	8-3-17
Responsible Line Manager	Organization	Signature:	Date:
John Bretzke	EPC-DO, Division Leader	Signature on File	8-7-17

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REVISION HISTORY

Document Number and Revision *[Include revision number, beginning with Revision 0]*	**Effective Date** *[Document Control Coordinator inserts effective date]*	**Description of Changes** *[List specific changes made since the previous revision]*
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ENV-DO-QP-101 R2	6/12	Biennial Review/Revision, new template implemented.
EPC-DO-QP-101 R3	08/07/17	Revision and update. This document replaces ENV-DO-QP-101 R2. New document number reflects organizational name change.

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1.0 INTRODUCTION

This Environmental Protection and Compliance Division (EPC-DO) procedure describes how to determine whether an unplanned release, spill, fire, or other event needs to be reported under environmental regulations and how to fulfill all immediate reporting requirements (within the first 24 hours). Emergency and abnormal event notification requirements for reporting to Laboratory and DOE management are specified in PD1200, *Emergency Management*, and *P322-4, Performance Improvement from Abnormal Events*. Environmental reporting requirements regarding releases or other events are included in this procedure.

1.1 Purpose

This procedure describes the actions that must be performed within the first 24 hours of the release. This procedure does **not** cover the response procedures for "continuous releases" under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Emergency Planning and Community Right-to-Know Act (EPCRA) (see definitions) nor the follow-up notifications and reports.

1.2 Applicability

This procedure applies to EPC-DO on-call representatives and subject matter experts (SMEs) who must respond to any release, spill, or event at the Laboratory that may require immediate notification to local, state or federal regulatory agencies. For notifications to Pueblo Environmental Departments refer to ENV-DO-QP-111, *Reporting Environmental Releases to Pueblo Governments*.

2.0 PRECAUTIONS AND LIMITATIONS

The work described in this procedure includes field work that does not require an Integrated Work Document (IWD) and is rated as having a **LOW hazard** level.

3.0 RESPONSIBILITIES

The following personnel require training before implementing this procedure:

- EPC managers, designated on-call representatives, and SMEs who may be asked to fulfill immediate reporting requirements during release-related exercises or during actual releases

Annual retraining to this procedure is required. This procedure will be reviewed biennially by all affected personnel and updated as necessary.

Training to this procedure will be by "self-study" (reading) and is documented in accordance with the trainee's organization's procedure for training.

Actions specified within this procedure, unless preceded with "should" or "may", are to be considered mandatory (i.e., "shall", "will", "must").

4.0 WORK PROCESSES

Events covered by this procedure include detonation or burns of unstable material, leaking or compromised gas cylinders, puncturing of bulging containers, fires, explosions, chemical or radiological spills, wastewater spills, potable water discharges, and other unplanned releases at the Laboratory.

On a semi-annual basis, EPC-DO will prepare a list of individuals designated as on-call representatives and will designate the week each will be on-call. This list will be distributed to on-call representatives and Laboratory managers including Principal Associate Directorate for Operations (PADOPS), Associate Directorate for Environment, Safety, and Health (ADESH), Associate Directorate for Environmental Management (ADEM), Emergency Operations (SEO-DO), EPC-DO, Environmental Protection and Compliance Division Compliance Programs Group (EPC-CP), and Environmental Protection and Compliance Division Environmental Stewardship Group (EPC-ES). The on-call representative can be reached by pager at 505-664-7722.

4.1 Responsibility of On-Call Representative

The EPC on-call representative is the party primarily responsible for:

- determining if the incident will require immediate notification to external agencies in accordance with LANL, state, and federal regulatory reporting requirements
- notifying EPC Division management of immediate reporting requirements
- if needed, coordinating with other on-call SMEs and the Emergency Operations Center (EOC) to ensure the required notifications for environmental reporting and abnormal events are being addressed for the Laboratory

The EPC on-call representative is not responsible for the following and EOC will make these determinations:

- determining if the Resource Conservation Recovery Act (RCRA) Contingency Plan must be implemented
- if a shock-sensitive material or leaking or compromised gas cylinder constitutes an emergency

However, in order to ensure that the appropriate expertise is available for the affected media, the EPC on-call representative may immediately confer with an SME of the EPC group that has programmatic responsibility. If an SME from the responsible group is able to respond to the event, the remaining steps in this procedure may be passed to that person.

A list of contact numbers for on-call representatives and SMEs for EPC-CP and EPC-ES groups is available in the EPC-CP group office. The EPC-DO and SEO-DO may also be contacted to determine the on-call representative for each group.

4.2 Follow-Up Reporting

This procedure describes the initial external notifications (within the first 24 hours) to regulatory agencies. After completion of the steps in this procedure, the EPC group specifically responsible for compliance with the relevant regulations will complete the required notifications and reports, as applicable under the appropriate regulations, according to established procedures.

4.3 Summary of Policy Reporting

The EPC on-call representative and spill response SMEs have the authority and responsibility for deciding when to report an event and for making notifications to regulatory agencies within the applicable regulatory deadlines.

LANL management and Department of Energy Los Alamos Field Office (DOE LAFO) must be informed as soon as possible that a report was or will be made, but their approval is not required prior to the report being made to the regulatory agency. LANL management, with input from EPC SMEs, will determine if an ORPS (Occurrence Reporting Processing System) report or other type of Lessons Learned will be necessary.

NOTE: SEO-DO maintains a current list of on-call LANL managers.

4.4 Using this Procedure

This procedure has seven separate paths (and corresponding sections) to follow for determining if a release or event is reportable. Follow each of these paths to determine if one or more are applicable:

- Resource Conservation and Recovery Act (RCRA)
- Toxic Substances Control Act (TSCA)
- Clean Water Act (CWA),New Mexico Water Quality Act (NMWQA), and New Mexico Water Quality Control Commission (NMWQCC) Regulations
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Emergency Planning and Community Right-to-Know Act (EPCRA)
- Clean Air Act
- Endangered Species Act
- Bald and Golden Eagle Protection Act
- Migratory Bird Treaty Act
- New Mexico Wildlife Conservation Act
- National Environmental Policy Act
- National Historic Preservation Act
- Native American Graves Protection and Repatriation Act

- Archaeological Resources Protection Act

Each release needs to be evaluated for all potential reporting requirements. For example, a Reportable Quantity (RQ), defined under CERCLA or EPCRA may not be met, **but the release may be reportable** under RCRA, New Mexico Water Quality Control Commission (NMWQCC), and/or Clean Water Act (CWA) requirements.

NOTE: The 24-hour deadline (immediate in some cases) applies regardless of whether it occurs during business hours, after business hours or on non-business days.

4.5 Determining if a Release is Reportable under RCRA

Follow the flow chart in Attachment 1 to determine if an event is reportable under RCRA regulations.

Under the RCRA permit requirements, the SEO-DO manager determines if the "RCRA Contingency Plan" provisions should be implemented. The EPC on-call representative or an EPC-CP SME performs notifications that may be required.

The SEO-DO Manager will normally attempt to contact the EPC-CP SME for guidance in making this decision. If the EPC-CP SME is successfully contacted, the completion of the remainder of this procedure may be passed on to this individual.

The EPC on-call representative makes the determination that one or more of these conditions occurred through consultation with EPC-CP and appropriate SMEs. 24-hour notification can be made by the EPC on-call representative or by an EPC SME.

The Emergency Operations Center (EOC) manager makes the determination that unstable chemicals, leaking or compromised gas cylinders represent an emergency situation and, typically with EPC-CP, how best to respond. 24-hour notification can be made by the on-call representative or EPC-CP SME.

If a release/event is reportable under RCRA rules, determine if the release/event is reportable under other rules and proceed to the Section 4.10 *Reporting a Release or Event.*

4.6 Determining if a Release is Reportable under TSCA

In practice, only spills of Polychlorinated Biphenyls (PCBs) or PCB-suspect untested mineral oil to the environment (generally outdoors or with the potential to reach the outdoors) are reportable. Spills that are contained indoors are generally not reported.

A discharge of PCBs is reportable to the Environmental Protection Agency (EPA) under TSCA if 1 pound of PCBs by weight is released [40 Code of Federal Regulations (CFR) 761.125(a)(1)]. Notify the EPA regional office and proceed with the immediate clean up requirements noted in 40 CFR 761.125(a)(1) in the shortest possible time after discovery, but in no case later than 24 hours after discovery. Additionally, reporting requirements are triggered if over 270 gallons of untested mineral oil suspected of containing PCBs has been spilled.

Follow the steps in *Determining if a Release is Reportable under CERCLA, EPCRA, or Other Regulations* to determine if the RQ for PCBs has also been exceeded.

There are six items containing PCBs that are out of service at the Chemistry and Metallurgy Research (CMR) Building. All other known PCB equipment at the Laboratory has been taken out of service and disposed of in accordance with TSCA regulations.

If a release is reportable under TSCA, continue through the next sections to determine if the release/event is reportable under other rules and proceed to *Reporting a Release or Event* and determine if additional reporting is necessary.

If the spill is ...	**Then...**
equal to or over 1 pound by weight of PCBs (TSCA) or greater than 270 gallons of untested mineral oil suspected of containing PCBs	Report to the National Response Center (1-800-242-8802) immediately (within 15 minutes of discovery). Additionally, contact EPA Region 6 (Office of Prevention, Pesticides and Toxic Substances Branch) through EPA's 24-hour spill response number 866-372-7745 as soon as possible after discovery but no later than 24 hours after discovery.

4.7 Determining if a Release is Reportable under the NM Water Quality Act or the CWA

20.6.2.1203 New Mexico Administrative Code (NMAC) Reporting

The NM Water Quality Act (NMWQA) does not use Reportable Quantities (as described in the next section). Instead the NM Water Quality Control Commission (NMWQCC) regulations state: *"With respect to any discharge from any facility of oil or other water contaminant, in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property, notifications (to the New Mexico Environment Department (NMED)) and corrective actions are required."*

The above rule requires the use of professional judgment to determine if reporting is required. No quantifiable metric is available to assist in making this determination. The EPC on-call representative or SME has the authority and responsibility to make this determination.

Additionally, unplanned releases of potable water or steam condensate require reporting pursuant to 20.6.2.1203 NMAC if the release is greater than 5,000 gallons, reaches a watercourse, or if the release adversely impacts a Solid Waste Management Unit (SWMU) or Area of Concern (AOC) as directed in the LANL Liquid Discharge Reporting Guidance (Decision Tree), dated March 10, 2009. Contact ADEM to confirm the location and potential impacts to SWMUs or AOCs from any releases that may occur.

Groundwater Discharge Permit Reporting

The Laboratory has four current Groundwater Discharge Permits (DPs) that include notification and reporting requirements in the event of an unpermitted discharge. Spills of **any volume** associated with any of the Groundwater DPs require reporting to NMED pursuant to 20.6.2.1203 NMAC.

1. **DP-857: Sanitary Waste Water System (SWWS) Plant, Sanitary Effluent Reclamation Facility (SERF), and Sigma Mesa Evaporation Basins. Permit Condition No. 44.**

   The unauthorized release of untreated and treated sanitary wastewater, reuse wastewater, blended wastewater, and reject wastewater would be subject to reporting under Condition No. 44.

2. **DP-1589: Septic Tank/Disposal Systems. Permit Condition No. 23.**

   The unauthorized release of untreated wastewater, septage, treated wastewater surfacing from failing disposal systems (leach fields), and treated wastewater surfacing from overflowing septic tanks would be subject to reporting under Condition No. 23.

3. **DP-1793: Land Application of Treated Groundwater. Permit Condition No. 17.**

   The unauthorized release of untreated or treated groundwater that does not constitute land application, as defined in EPC-CP-QP-010: Land Application of Groundwater, would be subject to reporting under Condition No. 17.

4. **DP-1835: Injection of Treated Groundwater to Class V Underground Injection Control (UIC) Wells. Permit Condition No. 22.**

   The unauthorized release of treated or untreated groundwater that does not constitute injection into a Class V UIC well, as defined in Discharge Permit DP-1835, would be subject to reporting under Condition No. 22.

Clean Water Act Reporting

Oil discharges (film/sheen/discoloration) to water in stream channels must also be reported to the National Response Center (NRC) immediately (within 15 minutes of discovery) pursuant to 40 CFR §110.6.

National Pollutant Discharge Elimination System (NPDES) Outfall Reporting

The EPC-DO on-call SME must provide notification to the NPDES Outfall Permit Program Lead and/or the EPC-CP Water Quality Team Leader in the event of a leak or unplanned release from an NPDES permitted outfall upon discovery in order to meet applicable reporting requirements.

4.7.1 Reporting Requirement for Petroleum Storage Tanks

As defined in 20.5.7 NMAC, the NMED requires verbal reporting within 24 hours of a petroleum product release from regulated tanks to the NMED Petroleum Storage Tank Bureau (PSTB) when there is:

- any suspected or confirmed release of regulated substances
- evidence of release of regulated substances
- unusual operational conditions (that would cause concern about a release)
- monitoring results that show loss from the system

Regulated tanks include those with a capacity between 1,320 gallons and 55,000 gallons. Regulated substances for Aboveground Storage Tanks includes, but is not limited to petroleum and petroleum-based substances comprised of a complex blend of hydrocarbons derived from crude oil through processes of separation, conversion, upgrading and finishing, such as motor fuels (including ethanol-based motor fuels), jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

Notice of any suspected or confirmed release from a storage tank system needs to be completed within 24 hours. Contact the EPC-CP Aboveground Storage Tank (AST) Program Lead and/or the EPC-CP Water Quality Team Leader prior to completing any external notifications. The PSTB can be reached at 476-4397 during business hours and 827-9329 (NMED Emergency Spill Hotline) during non-business hours. A written report describing the spill, release or suspected release and any investigation or follow-up action needs to be submitted to the PSTB within 14 days of the incident.

4.7.2 Additional Reporting Requirements under the NPDES Pesticide General Permit

Adverse incidents require reporting to the EPA under the NPDES Pesticide General Permit (PGP). An adverse incident is defined as an unusual or unexpected incident resulting from pesticide applications that an Operator has observed upon inspection or of which the Operator otherwise becomes aware, in which:

1. There is evidence that a person or non-target organism has likely been exposed to a pesticide residue, and
2. The person or non-target organism suffered a toxic or adverse effect.

The phrase toxic or adverse effect includes effects that occur within Waters of the United States on non-target plants, fish, or wildlife that are unusual or unexpected (e.g., effects are to organisms not otherwise described on the pesticide product label or otherwise not expected to be present) as a result of exposure to a pesticide residue, and may include:

- Distressed or dead juvenile and small fishes
- Washed up or floating fish
- Fish swimming abnormally or erratically
- Fish lying lethargically at water surface or in shallow water
- Fish that are listless or nonresponsive to disturbance
- Stunting, wilting, or desiccation of non-target submerged or emergent aquatic plants
- Other dead or visibly distressed non-target aquatic organisms (amphibians, turtles, invertebrates, etc.)

The phrase toxic or adverse effects also includes any adverse effects to humans (e.g. skin rashes) or domesticated animals that occur either from direct contact with or as a secondary effect from a discharge (e.g., sickness from consumption of plants or animals containing pesticides) to Waters of the United States that are temporally and spatially related to exposure to a pesticide residue (e.g. vomiting, lethargy).

If an Operator observes or otherwise becomes aware of an adverse incident due to pesticide application, the Operator must notify the EPA Incident Reporting contact within 24 hours of the Operator becoming aware of the adverse incident. EPA Incident Reporting Contacts are listed at https://www.epa.gov/npdes/pesticide-permitting.

If an Operator becomes aware of an adverse incident affecting a federally listed threatened or endangered species or its federally designated critical habitat, which may have resulted from a discharge from the Operator's pesticide application, the Operator must immediately (within 15 minutes of discovery) notify the U. S Fish and Wildlife Service. This notification must be made by phone to the contact listed on the EPA's website (https://www.epa.gov/npdes/pesticide-permitting).

4.8 Determining if a Release is Reportable under CERCLA or EPCRA

Under CERCLA or EPCRA, an RQ is the threshold which requires regulatory notification of a release. An RQ is based on the quantity of chemical released within any 24-hour period. CERCLA RQs of hazardous substances are listed in 40 CFR § 302.4. If an RQ is met or exceeded, an immediate (within 15 minutes of discovery) notification must be made to the NRC (1-800-424-8802) pursuant to 40 CFR §302.6. If a release of an airborne radioactive material exceeds an RQ, the EPA Region 6 Health Physicist (Office-(214) 665-8541; Mobile-(214) 755-1530; Home-(972) 937-1900) must also be verbally notified after the NRC notifications have been completed.

A release is reportable under EPCRA if a release of a hazardous or extremely hazardous substance listed in 40 CFR Part 355 Appendices A and B occurs. The chemicals that have not been assigned RQs by the EPA have been given statutory RQs of one pound by Congress. If an RQ established under EPCRA is met or exceeded, an immediate (within 15 minutes of discovery) notification must be made to the Local Emergency Planning Committee (LEPC) community emergency coordinator and to the State Emergency Response Commission (SERC) (see Attachment 2).

The lists of CERCLA hazardous substances and EPCRA extremely hazardous substances are two separate lists that include a number of common substances. However, not all extremely hazardous substances are listed hazardous substances. In some instances, a release of an extremely hazardous substance may be reportable under EPCRA but not reportable under CERCLA.

Releases that occur within a closed space with no emissions to the ambient environment are exempt from EPCRA and CERCLA reporting requirements.

NOTE: Response procedures for "Continuous Releases" are not covered in this procedure.

4.8.1 Regulatory Classification of the Released Material

The on-call EPC SME will determine the regulatory classification of the substance released with respect to the hazard classifications:

- Extremely Hazardous Substance (EHS) and/or Hazardous Substance (HS)

Often during the course of an emergency, complete information will not be available regarding type and amount of material released. In this case, best professional judgment must be used to establish the level of confidence associated with the estimates. If the uncertainty is high enough that future

estimates may require reporting, it is best to be conservative and report the release following the reporting requirements detailed in Section 4.10 *Reporting a Release or Event*.

After determining the RQ of a released material, the EPC on-call representative or SME will perform the following steps to determine if an RQ has been released.

<table>
<tr><th>Step</th><th>Action</th></tr>
<tr><td>1</td><td>Obtain an estimate of the quantity and type of material released (e.g. 4 pounds of chlorine gas or 150 curies of tritium).</td></tr>
<tr><td>2</td><td>Compare this quantity against the RQs provided in 40 CFR Table 302.4 and 40 CFR §355, Appendices A and B.</td></tr>
<tr><td>3</td><td>If this is an airborne release of radioactive materials, immediate (within 15 minutes of discovery) reporting to the NRC and the EPA Region 6, Regional Health Physicist is required if the RQ has been exceeded. Note that for radioactive materials, the RQ is provided in activity units (curies or becquerels). Also note that some materials have an RQ value for both chemical exposure (Table 302.4) and for radiological exposure (Appendix B to §302.4). In these cases, the RQ applying to the smallest quantity of material will apply.

For all radioactive material releases, a radiological dose assessment must also be performed within 24 hours of the release. This dose assessment should be made by an environmental health physicist in EPC-CP or EPC-ES. The on-call individual should contact an EPC health physicist for this evaluation.

Immediate evaluation – RQ comparison (of a radioactive material release)

If the release… — Then…
Is equal to or greater than the RQ — Proceed to section 4.10 Reporting a Release or Event.
Is less than the RQ — No immediate reporting is required; contact EPC environmental health physicist to complete follow-up dose assessment.</td></tr>
<tr><td>4</td><td>If this is a release of non-rad material, it is reportable if the RQ is exceeded.

If the amount released is.., — Then…
Equal to or greater than the RQ — Proceed to Section 4.10 Reporting a Release or Event.
Less than the RQ — Proceed to Step 5</td></tr>
<tr><td>5</td><td>Continue to re-evaluate the release as new data becomes available. Perform Steps 1 through 4 as necessary.</td></tr>
</table>

4.9 Determining Release Impacts to Biological or Cultural Resources

There are laws and regulations related to protection of biological and cultural resources which are applicable to the Laboratory. These laws and regulations include:

- National Environmental Policy Act
- Endangered Species Act
- Bald and Golden Eagle Protection Act
- Migratory Bird Treaty Act
- New Mexico Wildlife Conservation Act
- New Mexico Endangered Species Act
- National Historic Preservation Act
- Native American Graves Protection and Repatriation Act
- Archaeological Resources Protection Act

Reporting of impacts to biological or cultural resources under the preceding federal laws is not specifically defined. However, the EPC on-call SME should utilize the Decision Support Application (DSA) to determine if the release impacted a Biological or Cultural Site. The DSA layer 'Federally Listed Species Habitat' contains Endangered Species habitat boundaries. The DSA 'Cultural Resources-Buffered Sites' layer contains the boundaries of the Cultural Sites (Please note- information contained in these layers is Official Use Only). Notify the respective Biological or Cultural SME within one business day if the release impacted either of these areas. The Biological or Cultural SMEs will handle any additional reporting requirements.

Additionally, if there is a release of contaminants to a wetland or destruction of a wetland, OR if the event could result in the "take" of a threatened or endangered species (i.e., a wildfire), the EPC on-call representative or SME will notify the Biological SME within one business day of the event. The Biological SME will complete any additional reporting requirements.

4.10 Reporting a Release or Event

If a release or event is reportable (as determined by one or more of the previous sections), the Laboratory is required to meet certain reporting requirements. The emergency notification requirements must be followed upon determination that a release or event is reportable.

For informational purposes, a Summary of Emergency Release or Event Reporting Requirements is provided in Attachment 2. This document summarizes the primary statutes and the associated reporting requirements.

Maintain a notebook to record pertinent information about the release and to document the actions taken (see Section 5.0 *Records*).

Any release to the environment that has been determined to be reportable by the EPC on-call representative or SME shall be reported through the LANL management chain in accordance with PD1200, *Emergency Management* and *P322-4, Performance Improvement from Abnormal Events*.

Los Alamos National Security (LANS) management and DOE shall be notified if a release notification to state or federal regulatory agencies is required. Management approval is not required prior to completing environmental notifications to the regulatory agencies in order to assure that the deadline for reporting is not exceeded.

Perform the following steps immediately after establishing that reporting is required:

Step	Action
1	Compile release information including : • The source, cause, type and quantity of the release • Time and duration of the release • Extent of any protective and corrective actions taken • Name, address, and telephone number of the person to contact for further information • Whether the substance is an HS or EHS • Associated health risks and medical attention necessary for exposed individuals • If available, information concerning the release of any hazardous and/or mixed waste which may endanger public or private drinking water supplies • Assessment of actual or potential hazards to human health or the environment outside the facility • If available, estimated quantity and disposition of recovered material that resulted from the incident • Precautions to take due to the release/event, including, in the case of fire, those associated with special hazards due to hazardous and/or mixed waste • Any other information which may help emergency personnel responding to the incident • Environmental media impacted from the release
2	Notify LANL management, DOE, and the respective Facilities Operations Division (FOD). Note: Management approval is not required prior to completing environmental notifications to the regulatory agencies in order to assure that the deadline for reporting is not exceeded.
3	Provide notification to the regulatory agency as required by the applicable regulation(s) detailed in Sections 4.5 - 4.9. Reference Attachment 2 for a summary of the applicable reporting requirements.
4	Notify programmatic SMEs that may be impacted or required to complete follow up reporting.

4.10.1 Steps to Notify LANL Management and DOE

The EPC on-call representative will complete the following steps to provide notification to LANL Management and DOE.

Step	Action
1	Determine that a release to the environment is reportable to state or federal entities as

	required under applicable regulations. **NOTE:** Occurrence Reporting and Procession System (ORPS) reporting is a FOD and Responsible Associate Director (RAD) responsibility and commonly they will seek advisement from EPC SMEs.
2	Provide notification to the EPC-CP Water Quality Team Leader, the EPC-CP Group Leader, the EPC-DO Division Leader, and DOE LAFO program contact of the release and the required external notifications.
3	Complete environmental reporting to state and federal agencies in accordance with all applicable regulations.
4	Notify the appropriate program SME that may be impacted or be required to complete following up release reporting.

After all the above notifications have been made, or when requested, the EPC on-call representative or SME will hand off responsibility for additional actions and follow-up to the affected environmental group. (The group that will be responsible will depend on the type and location of the release and the governing regulations or statutes.)

In order to communicate events at LANL which may impact the public and or the environment, EPC staff may provide a courtesy notification to New Mexico Environment Department of events that may not require formal regulatory notification. Examples of such events in the past have been small wild land fires.

5.0 RECORDS

The following records are generated as a result of this procedure and are maintained in accordance with ADESH-AP-006 Records Management Plan and P1020-1, *Laboratory Records Management*:

- Field documentation of the release, including:
    - Time and date of the release
    - Time, date, and description of notifications
    - Location and source of the release
    - Type of material released
    - Quantity of material released
    - Impacted media
    - Time release was stopped
    - Any immediate mitigation actions taken to contain or control the release
    - Documentation of any verbal notifications
    - Samples taken
- Copies of any written notifications generated

- Documentation of any analytical results, and quality assurance of results
- Contingency and / or emergency plan documentation
- Documentation of any RCRA permit non-compliance that threatens human health and environment
- Documentation of treatment of any RCRA unstable chemicals, leaking or compromised gas cylinders

6.0 DEFINITIONS AND ACRONYMS

6.1 Definitions

ADESH – Associate Directorate for Environment, Safety, and Health

ADEM – Associate Directorate for Environmental Management

AOC – Area of Concern

AST – Aboveground Storage Tank

CAA – Clean Air Act

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act

CMR – Chemistry and Metallurgy Research

CFR – Code of Federal Regulations

Continuous Release – A release is continuous if it "occurs without interruption or abatement or if it is routine, anticipated, intermittent, and incidental to normal operations or treatment processes." The release must also be "stable in quantity and rate," which means that it must be predictable and regular in the amount and rate of emission. The response procedures for continuous releases are not covered by this document. See guidance in Reporting Continuous Releases of Hazardous and Extremely Hazardous Substances under CERCLA and EPCRA.

CWA – Clean Water Act

DOE LAFO – Department of Energy Los Alamos Field Office

DSA – Decision Support Application

Environment – Includes "water, air, land, and the interrelationship which exists among and between water, air, land, and all living things." (40 CFR 355.20)

EOC – Emergency Operations Center

EPA – Environmental Protection Agency

EPC-DO – Environmental Protection and Compliance Division

EPCRA – Emergency Planning and Community Right-to-Know Act

EPC-CP – Environmental Protection and Compliance Division Compliance Programs Group

EPC-ES – Environmental Protection and Compliance Division Environmental Stewardship Group

Extremely Hazardous Substance (EHS) – EPCRA establishes emergency reporting requirements for extremely hazardous substances in 40 CFR 355, Appendix A. All of these substances are also CWA and CERCLA "hazardous" substances.

FOD – Facility Operations Director

GWDP-Ground Water Discharge Permit

Hazardous Substance (HS) – These substances are summarized in 40 CFR Part 302. As used in this context, refers to: (1) any elements, compounds, mixtures, solutions, or substances specially designated by EPA under Section 311 of the Clean Water Act (CWA) (40 CFR 116.4); (2) any toxic pollutants listed under Section 307(a) of the CWA; (3) any hazardous substances regulated under Section 311 (b)(2)(A) of the CWA; (4) any listed or characteristic RCRA hazardous waste (40 CFR 261), (5) any hazardous air pollutants listed under Section 112 of the Clean Air Act (CAA); or (6) any imminently hazardous chemical substances or mixtures regulated under Section 7 of the Toxic Substances Control Act (TSCA).

IWD – Integrated Work Document

LANL – Los Alamos National Laboratory

LANS – Los Alamos National Security

LEPC – Local Emergency Planning Committee

NMAC – New Mexico Administrative Code

NMED – New Mexico Environment Department

NMWQA – New Mexico Water Quality Act

NMWQCC – New Mexico Water Quality Control Commission

NPDES – National Pollutant Discharge Elimination System

NRC – National Response Center

ORPS – Occurrence Reporting and Processing System

OSC – On-Scene Commander

PADOPS – Principal Associate Directorate Operations

PCBs – Polychlorinated Biphenyls

PGP – Pesticide General Permit

PST – Petroleum Storage Tank

PSTB – Petroleum Storage Tank Bureau

RAD – Responsible Associate Director

RCRA – Resource Conservation and Recovery Act

Release – Any unpermitted spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing of contaminants into the environment, excluding: (1) emissions from the engine exhaust of any vehicle, (2) certain releases of source, byproduct, or special nuclear material from a nuclear incident, or (3) normal application of fertilizer.

RQ – Reportable Quantity

SARA – Superfund Amendments and Reauthorization Act

SDS – Safety Data Sheet

SERC – State Emergency Response Commission

SERF – Sanitary Effluent Reclamation Facility

SEO-DO –Security and Emergency Operations Division

SME – Subject Matter Expert

SWMU – Solid Waste Management Unit

SWWS - Sanitary Waste Water System

TSCA – Toxic Substances Control Act

UIC – Underground Injection Control

7.0 REFERENCES

The following documents are referenced in this procedure:

- 40 CFR 302, Designation, Reportable Quantities, and Notification
- 40 CFR 261, 264 Subpart D 270.30
- DOE guidance document PCB Spill Response and Notification Requirements
- (EH-231-059/1294), available on the EPC-CP web page
- DOE – Office of Environmental Guidance, CERCLA Information Brief, EH-231-001-0490 (April 1990)
- EPA Web Site: http://www.epa.gov/
- EPCRA Information Web Site: http://www.chemicalspill.org/EPCRA-facilities/spill.html
- Federal Register, Volume 67, No. 47, Notices FRL-7172-4, Guidance on the CERCLA Section 101(10)H, Federally Permitted Release Definition for Certain Air Emissions
- PD1200, Emergency Management
- P322-3, Performance Improvement from Abnormal Events
- LANL RCRA Permit No. NM0890010515-1
- LANL NPDES Permit No. NM0028355

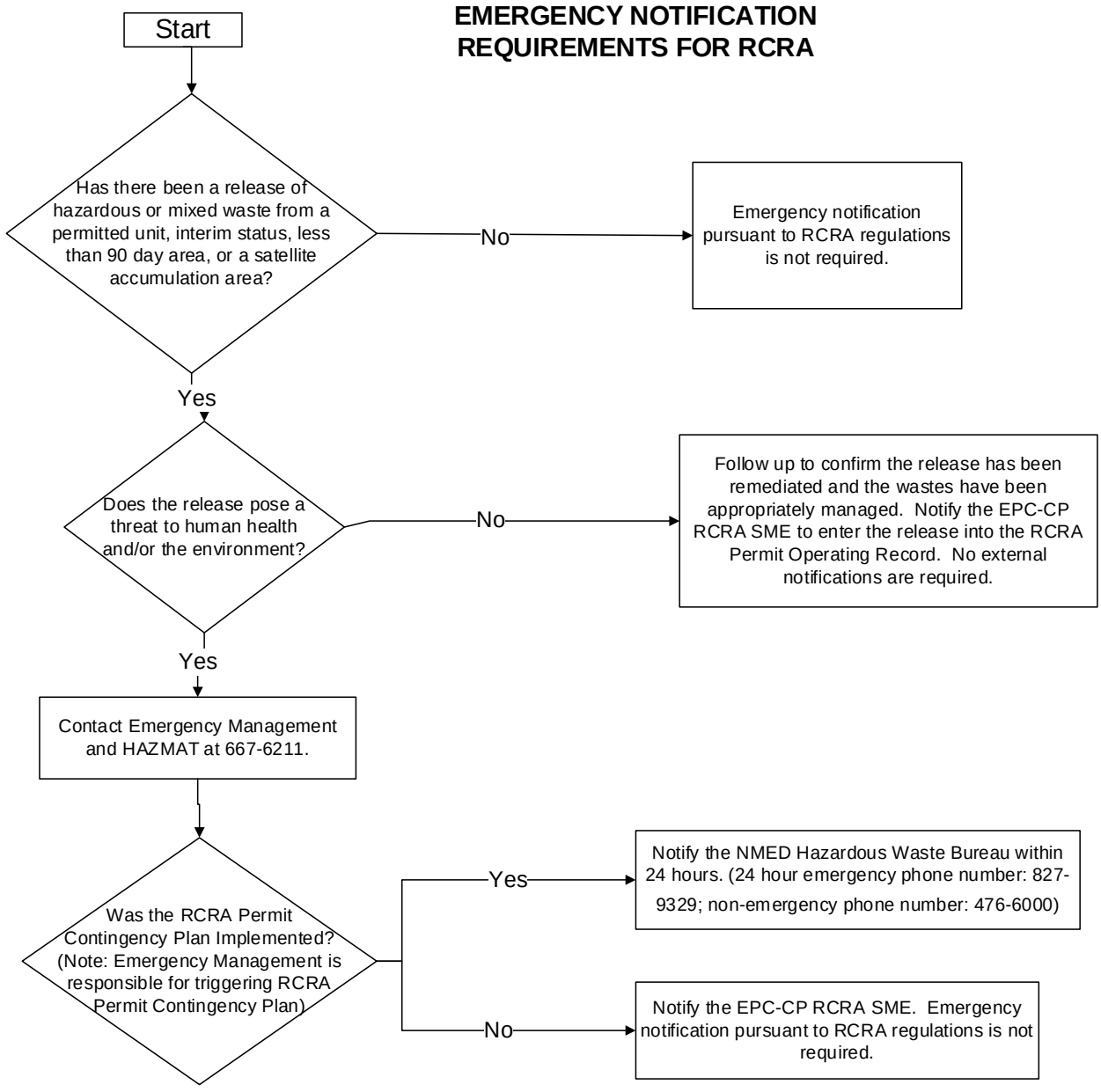
- National Response Center (NRC) Web Site: http://www.nrc.uscg.mil/
- NMWQCC Regulations, 20.6.2 NMAC, dated December 1, 2001
- P407, Water Quality
- P1020-1, Laboratory Records Management
- ADESH-AP-006, Records Management Plan

8.0 ATTACHMENTS OR APPENDICES

Attachment 1: Emergency Notification Requirements for RCRA

Attachment 2: Summary of Emergency Release or Event Reporting Requirements

Attachment 1: Emergency Notification Requirements for RCRA



Attachment 2: Summary of Emergency Release or Event Reporting Requirements

NOTE: This is only a guide and does not cover all federal, state, or permit reporting requirements. Refer to the Code of Federal Regulations and the RCRA Permit for more details regarding these regulations.

STATUTE	REGULATIONS	INCIDENT	Immediate Reporting Requirements	Follow Up Reporting Requirements
Clean Water Act	40 CFR §110.6	Oil discharge (film/sheen/discoloration) to water surface or shoreline, or violation of water quality standards.	Immediately (within 15 minutes of discovery) notify the National Response Center.	Follow-up not required.
Clean Water Act	Part III of NPDES Permit No. NM0028355	Leak or unplanned release from an NPDES permitted outfall.	Notify the NPDES Outfall Permit Program Lead and EPC-CP Water Quality Team Leader upon discovery. The program lead or the EPC-CP Water Quality Team Leader will complete initial reporting requirements as required.	Required follow up reporting will be completed by the NPDES Outfall Permit Program Lead and EPC-CP Water Quality Team Leader.
Clean Water Act (CWA)-NPDES Pesticide General Permit	40 CFR §122.28	Adverse incident which includes evidence that a person or non-target organism has been exposed to a pesticide residue or the person or non-target organism suffered a toxic or adverse effect.	Notify the EPA Region 6 Pesticide Permitting contact (214)665-7500 within 24 hours.	Submit a 30 Day Adverse Incident Written Report to the EPA Regional Office.
New Mexico Water Quality Control Commission Regulations (NMWQCC Regulations)	20.6.2.1203 NMAC	Discharge from any facility of oil or other water contaminant, in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or use of the property.	Notify the New Mexico Environment Department 505-827-9329 within 24 hours.	Submit 7 and 15 Day written follow up Corrective Action Reports (Copy EPA Region 6 on the 7 and 15 Day Reports).

STATUTE	REGULATIONS	INCIDENT	Immediate Reporting Requirements	Follow Up Reporting Requirements
New Mexico Water Quality Control Commission Regulations (NMWQCC Regulations)	20.6.2.3104 NMAC	Unplanned release of any volume from an activity or facility covered under an active Groundwater DP: DP-857: SWWS Plant, SERF, and Sigma Mesa Evaporation Basins DP-1589: Septic Tank/Disposal Systems DP-1793: Land Application of Treated Groundwater DP-1835: Injection of Treated Groundwater to Class V UIC Wells	Notify the New Mexico Environment Department 505-827-9329 within 24 hours.	Submit 7 and 15 Day written follow up Corrective Action Reports (Copy EPA Region 6 on the 7 and 15 Day Reports)
New Mexico Environmental Improvement Board Regulation	20.5.7 NMAC	A release of a petroleum product from regulated aboveground storage tank.	Contact the EPC-CP AST Program Lead and/or the EPC-CP Water Quality Team Leader prior to completing any external notifications. If required, the Petroleum Storage Tank Bureau (476-4397) or NMED Emergency Spill Hotline (827-9329) must be contacted within 24 hours.	A written report describing the spill, release or suspected release and any investigation or follow-up action needs to be submitted to the PSTB within 14 days of the incident.
Comprehensive Environmental, Response, Compensation, and Liability Act (CERCLA)	40 CFR §302.6(a)	Hazardous substance (listed in 40 CFR Table 302.4) release (Equal to or greater than an RQ).	Immediately (within 15 minutes of discovery) notify the National Response Center 1-800-424-8802.	Follow-up not required.
Emergency Planning and Community Right- to-Know Act (EPCRA)	40 CFR§ 355.40	Release of an extremely hazardous substance (listed in 40 CFR Part 355 Appendices A and B) or CERCLA hazardous substance (listed in 40 CFR Table 302.4) equal to or greater than RQ.	Immediately (within 15 minutes of discovery) notify the LEPC (505-662-8283) the SERC (505-476-9635). Immediately notify the 911 operator for a release that occurs during transportation or from storage incident to transportation.	A written follow-up emergency notice must be submitted to the LEPC and SERC as soon as practicable after the release.

STATUTE	REGULATIONS	INCIDENT	Immediate Reporting Requirements	Follow Up Reporting Requirements
Resource Conservation and Recovery Act (RCRA)	40 CFR 262.34, 263.30, 264.51, 264.56 & .196, 265.51, .56 & .196, 270.14, & .30, 273.17, .37 & .54, 279.43 & .53, 280.50, .52, .53, .60, &.61	Release of hazardous or mixed waste from a permitted unit, interim status, less than 90 day area or a satellite accumulation area which the RCRA Permit Contingency Plan was triggered.	Notify NMED Hazardous Waste Bureau within 24 hours (24 hour emergency phone number: 827-9329; Non-emergency phone number: 476-6000) See Attachment 1 for additional details.	Submit written report to NMED HWB within 5 days.
Clean Air Act/ Radionuclide NESHAP	40 CFR 61, Subpart H	Airborne release of radioactive material in excess of an RQ.	Notify the EPA Region 6 Health Physicist (Office-(214) 665-8541; Mobile-(214) 755-1530; Home – (972) 937-1900) immediately after providing notification to the NRC.	Follow-up not required.
Toxic Substance Control Act (TSCA)	40 CFR 761.120, 761.125	Over 1 pound by weight of PCBs (TSCA) or greater than 270 gallons of untested mineral oil suspected of containing PCBs.	Contact the National Response Center (1-800-242-8802) and the EPA Region 6 Office of Prevention, Pesticides, and Toxic Substances Branch (1-866-372-7745) as soon as possible after discovery, but no later than 24 hours after discovery.	Within 24 hours. Follow-up: as required by agency.

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Environment, Safety, Health Directorate

Environmental Protection – Compliance Programs Quality Procedure

Installing, Setting Up, and Operating ISCO Samplers for the MSGP

Reviewers:

Name:	Organization:	Signature:	Date:
Melanie Lamb	ADESH-OIO, QA Specialist	Signature on file	8/28/13

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Name:	Organization:	Signature:	Date:
Ellena Martinez	ADESH-OIO	Signature on file	8/28/13

Approval Signatures:

Subject Matter Expert:	Organization:	Signature:	Date:
Holly Wheeler	ENV-CP	Signature on file	8/29/13
Responsible Line Manager:	Organization:	Signature:	Date:
Michael Saladen	ENV-CP Team Lead	Signature on file	8/29/13
Responsible Line Manager:	Organization:	Signature:	Date:
Anthony Grieggs	ENV-CP Group Leader	Signature on file	9/5/13

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1.0 PURPOSE

This procedure describes the installation, setup, programming, and operation of Teledyne ISCO Avalanche and Model 3700 full-size portable automated samplers used to collect storm water runoff samples for the Multi-Sector General Permit (MSGP).

2.0 SCOPE

This procedure applies to all ENV-CP technical staff and contractor personnel conducting installation, operation, maintenance and sampling activities at single stage stations used for monitoring under the MSGP.

2.1 HAZARD REVIEW

Hazards in the work described in this procedure are controlled thorough site specific IWDs. The hazard level of the activities in this procedure is **moderate**.

3.0 RESPONSIBILITIES

The following personnel require training before implementing this procedure:

- This procedure applies to all ENV-CP MSGP storm water compliance personnel conducting installation, operation, maintenance and sampling activities at MSGP single stage monitoring stations.

The training method for this procedure is “self-study” (reading). For ENV-CP staff, this is documented in accordance with ENV-DO-QP-115, *Personnel Training*. Other participating groups may require training documentation pursuant to local procedures.

Actions specified within this procedure, unless proceeded with “should” or “may,” are to be considered mandatory (i.e., “shall”, “will”, “must”).

3.1 PREREQUISITES

Personnel performing this procedure will be familiar with the most current versions of the following procedures and operation manuals:

- ENV-CP MSGP Sampling and Analysis Plan for the current monitoring year
- Manual for Teledyne ISCO Sampler Model 3700.
- Manual for Teledyne ISCO Avalanche refrigerated sampler
- Facility/FOD specific IWDs for the MSGP

4.0 DOCUMENT CONTROL/RECORDS MANAGEMENT

The following records are generated as a result of this procedure and are maintained in accordance with ENV-DO-QP-110, *Records Management Program* with the originals on file at ENV-CP offices:

Completed work orders for:

- LANL MSGP ISCO Sampler Installation Form 045-1(Attachment 1)
- LANL MSGP ISCO Sampler Activation Form 045-3 (Attachment 6)
- LANL MSGP ISCO Sampler Winter Shutdown 045-5 (Attachment 9)
- LANL MSGP ISCO Sampler Decommission 045-6 (Attachment 10)

5.0 WORK PROCESSES

The discharge of storm water from industrial facilities at Los Alamos National Laboratory (LANL, the Laboratory) is regulated under the National Pollutant Discharge Elimination System (NPDES) *Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity* (MSGP). The current MSGP became effective on September 29, 2008 pursuant to 73 FR 56572. The Laboratory's MSGP permit coverage (Permit Tracking No. NMR05GB21) requires storm water quality monitoring to evaluate the overall effectiveness of control measures. ISCO samplers coupled with Model 1640 sampler actuators are used at MSGP Program monitoring stations. Refrigerated (Avalanche) and/or non-refrigerated (Model 3700) samplers may be deployed; and may be configured with multi-battery arrays, solar panels, and surge protectors.

5.1 EQUIPMENT AND TOOLS

Ensure the following equipment is available in the field vehicle:

- Copy of this procedure
- Copy of the appropriate Integrated Work Document(s) (IWDs)
- Charged spare battery(ies)
- Battery voltage tester
- Spare tubing (pump, suction, discharge types, sampler specific)
- Spare sample bottles
- Shovels
- Wooden stakes
- Plastic wire "zip" ties
- Cell phone (only government cell phones with the battery removed are allowed in secure areas)
- Appropriate tools (including insulated tools for electrical work) in tool box
- Issued Work Orders and associated forms
- Necessary access and station keys
- Ziploc® plastic storage bags
- Tape measure
- Sturdy hiking boots or steel toed shoes with soles that grip

The time on the ISCO sampler clock must be verified upon arrival at the site. The ISCO clocks must be set to Mountain Standard Time (MST) at all times, with no daylight saving time adjustment. Cellular phones can be used to verify the time.

5.2 ISCO SAMPLER INSTALLATION

Step	Action
1	Work Orders are issued for all field operations at individual MSGP monitored outfalls. Obtain the Work Order with the LANL MSGP ISCO Sampler Installation Form 045-1 (Attachment 1). The Work Order specifies the MSGP outfall and target date for the work to be performed. An outfall-specific equipment list with specifications and configuration settings is provided on each Work Order.
2	Deploy the ISCO sampler and charged battery on level ground above the flood plain. Often, large tool/storage boxes (Greenlee™) are used for equipment protection in the field. **NOTE:** These boxes are locked. Therefore, a key should be obtained prior to accessing them. The sampler should be as level as possible to allow effective sample collection. Verify/record the ISCO sampler serial number and the battery tracking number(s) on the Work Order.
3	Install the separate protective battery box for the charged battery (follow manufacturer's instructions).
4	Determine the bottle set configuration from the equipment list on the Work Order. • If a Model 3700 sampler is indicated, install the correct distributor arm (has either "12" or "24" embossed on bottom at outlet). • For an Avalanche sampler, attach either the discharge tube guide (single bottle configuration) or the distributor arm (multi-bottle configuration) and the appropriate bottle adapter plate. If an adapter plate is not available, the inside of the sampler may need to be configured by hand (i.e., add form) to prevent bottles from moving around during a sampling event. • Install required bottles and retaining devices in the sampler base. • Check that the end of the discharge tubing does not extend below the bottom face of the distributor arm (where it could snag the bottle tops and jam as the arm advances through the bottle sequence). • Remove and place the clean bottle caps in a new Ziploc® plastic bag.
5	Attach a length (in whole foot increments) of 3/8-inch diameter Teflon suction line to the sampler intake line and anchor as needed for the Outfall location. Measure and record (for later programming steps) the tubing length used. Route the sample tubing downslope from the sampler to the intake point so that there is a continuous slope with no valleys that could retain water between sample intervals.
6	Install the actuator: • Anchor a stake to the channel bottom in the main flow of the outfall discharge. • Attach the sampler intake tube and the 1640 liquid level detector (actuator) to the stake. • Position the actuator at least ½ inch above the intake tube to ensure there is enough water to submerge the intake when the sampler is activated. • Connect the actuator to the sampler using the cable connector provided by the manufacturer. • If necessary, use a gravel bag to create a small pooling area for the actuator and sampler intake to sit in. The actuator height above the channel bottom is established using professional judgment. For example, the intake may be positioned 1 inch or less above the bottom of low-flowing wide channels, but higher than 1 inch in a high-flowing narrow channel.

7	**NOTE:** You must be a trained electrical worker and have completed all required courses in Training Plan #2876 to conduct this step. Connect the sampler to the power source, either a 12 Volt 110 A-h deep cycle lead acid battery or other power source such as a multi-battery array coupled with a solar panel, as appropriate. Record the battery tracking numbers in the equipment list section of the Work Order. (Refer to Attachments 2 and 3 for the wiring diagram for Avalanche sampler installation.)

5.3 CONFIGURING ISCO 3700 SAMPLERS

Step	Action
1	When a new ISCO 3700 sampler is being installed, configure the sampler in accordance with the steps contained in this section. Follow the project-specific configuration settings as indicated on the Work Order and given in Attachment 4, ISCO 3700 Configuration Settings.
2	Turn on the sampler by pressing the "On" button.
3	Press the "Enter/Program" button.
4	Select "Configuration".
5	Set the configuration parameters in accordance with the guidance in Attachment 4, ISCO 3700 Configuration Settings. After each selection is made, press the "Enter" button to allow the next configuration parameter to be displayed on the screen.
6	After the programming is complete, select "Run diagnostics" and press "Enter" to run the system diagnostic test. The diagnostic tests include the following: • RAM and ROM test • LCD test • Pump test ("OFF/ON" number should be between 50 and 200 for a successful test) • Distributor test -- select "YES" to run test. Test will move the distributor to Position 24 and then return it to Position 1.
7	Following the diagnostic tests, "Reinitialize Controller" will be displayed. Select "No" and press "Enter." Do not select "Yes." If "Yes" is selected, the sampler will reset a number of configuration and program settings to the factory default values.
8	To leave the configuration sequence, use the "Exit configuration" and press "Yes" or press the "Enter/Program" key.

5.4 PROGRAMMING ISCO 3700 SAMPLERS

Step	Action
1	Follow the steps in this process to program a new ISCO or to confirm the program settings are correct for a specific location. Follow the project-specific program settings as indicated on the

	work order and given in Attachment 5, ISCO 3700 Program Sequence.
2	Turn on the sampler by pressing the “ON” button
3	Press the “Enter/Program” button.
4	Select “Program”.
5	Set the program parameters in accordance with the guidance on Attachment 5, ISCO 3700 Program Sequence. After each selection is made, press the “Enter” button to allow the next configuration parameter to be displayed on the screen.
6	Set the switch on the actuator to “Latch.”
7	**NOTE:** You must be a trained electrical worker and have completed all required courses in Training Plan #2876 to conduct this step.
8	Complete the responses for the sampler installation tasks listed on the Work Order. Sign and date the Work Order and ensure all items contained within it have been completed.

5.5 ACTIVATING ISCO 3700 SAMPLERS

Step	Action
1	Follow the steps in this section when a Work Order is received to activate a sampler (generally at the beginning of a field season or at the beginning of the next quarter after the last quarterly monitoring sample was obtained). Note: The MSGP monitoring quarters are as follows • April 1 through May 31 • June 1 through July 31 • August 1 through September 30, and • October 1, through November 30.
2	Obtain the Work Order with the LANL MSGP Sampler Activation Form 045-3 (Attachment 6). The Work Order specifies the MSGP Outfall and target date for the work to be performed. An Outfall-specific equipment list with specifications and configuration settings is provided on each Work Order. **NOTE:** You must be a trained electrical worker and have completed all required courses in Training Plan #2876 to conduct this step. If not already installed, install and hook up the charged battery. If a battery is already in place, use the voltage tester to check for minimum voltage of 11.7 volts. If the voltage is lower, replace the battery with a charged battery.
3	Turn the sampler ON. “Program halted” will be displayed; press the Enter/Program button to enter program/configure sequence.
4	Check the configuration and programming parameters to ensure they are still correct for the specific installation (see Attachment 4 and 5 for the correct parameters).
5	Check integrity and condition of sampler tubing, actuator, wiring, etc., to ensure sampler will properly collect a sample.

6	To test the integrity of the tubing, press "Pump forward" to turn on pump and test for suction at the tubing intake. Press "Stop" to turn off pump. If no suction is felt at the intake, check the integrity of the tubing and replace as necessary.
7	To activate the sampler, press "Start sampling" and "Enter" twice.
8	Ensure the sampler indicates "Sampler Inhibited".
9	Complete the responses for the sampler activation tasks listed on the Work Order. Sign and date the Work Order and ensure all items contained within it have been completed.

5.6 CONFIGURING ISCO AVALANCHE SAMPLERS

Step	Action
1	When a new ISCO Avalanche sampler is being installed, configure the sampler in accordance with the steps contained in this section. Follow the project-specific configuration settings as indicated on the work order and given in Attachment 8, ISCO Avalanche Configuration Settings.
2	Turn on the sampler by pressing the "Standby" key.
3	From the main menu, select Other Functions, to access the menus and select options given in Attachment 8.
4	Set the configuration parameters in accordance with the guidance on Attachment 8, ISCO Avalanche Configuration Settings.
5	After the programming is complete, select "Run diagnostics" and press "Enter" to run the system diagnostic test. These include the following: • RAM and ROM test • Pump test ("ON/OFF" ratio should be between 0.80 and 1.25 for a successful test) • Distributor test -- select "YES" to run test. Test will move the distributor to Position 14 and then return it to Position 1.
6	Following the diagnostic tests, "Reinitialize Controller" will be displayed. Select "No" and press the "Enter" key. (If "Yes" is selected, the sampler will reset a number of configuration and program settings to the factory default values).
7	If a 700 series module (e.g., pH) is to be installed, consult the equipment manufacturer's manual for installation instructions. **NOTE:** The pH module is only required at the Asphalt Batch Plant.
8	Complete the responses for the sampler installation tasks listed on the Work Order. Sign and date the Work Order and ensure all items contained within it have been completed.

5.7 PROGRAMMING ISCO AVALANCHE SAMPLERS

Step	Action
1	Follow the steps in this process to program a new ISCO or to confirm the program settings are correct for a specific location and bottle configuration. Follow the project-specific program settings as indicated on the work order and given in Attachment 8, ISCO Avalanche Program Sequence.
2	Turn on the sampler by pressing the "Standby" key.
3	Press the "Program" button.
4	Select the current program to review settings, or choose "Select New Program" to create a new program with different settings.
5	Select the current program to review settings, or choose "Select New Program" to create a new program with different settings.
6	At the prompt "Programming complete, run this program now?" , select "Yes" if sampler is scheduled to be active, and "No" if sampler is in stand down.
7	Set switch on actuator to "Latch."
8	Complete the responses for the sampler installation tasks listed on the Work Order. Sign and date the Work Order and ensure all items within it have been completed.

5.8 ACTIVATING ISCO AVALANCHE SAMPLERS

Step	Action
1	Follow the steps in this section when a Work Order is received to activate a sampler (generally at the beginning of a field season or at the beginning of the next quarter after the last quarterly monitoring sample was obtained). Note: The MSGP monitoring quarters are as follows • April 1 through May 31 • June 1 through July 31 • August 1 through September 30, and • October 1, through November 30.
2	**NOTE:** You must be a trained electrical worker and have completed all required courses in Training Plan #2876 to conduct this step. If not already installed, install and hook up the charged battery(ies). If a battery is already in place, use the voltage tester to check for minimum voltage of 11.7 volts. If the voltage is lower, replace the battery with a charged battery.
3	Turn on sampler power. From the main menu, select "Program" and the "Enter" key to enter programming sequence, and "Other Functions" to enter the configuration settings.
4	Check the programming/configuration parameters to ensure they are still correct for the specific installation – follow the two preceding sections for the steps and see Attachment 7 and 8 for the correct parameters.
5	Check integrity and condition of sampling tubes, actuator, wiring, etc., to ensure sampler

	will properly collect a sample.
6	From the main menu, select "Other Functions" ►"Manual Functions" ►"Operate Pump" to perform a manual suction test. To test the integrity of the tubing, press "Pump forward" to turn on pump and test for suction at the tubing intake. Press "Stop" to turn off pump. If no suction is felt at the intake, check the integrity of the tubing and replace as necessary.
7	Reset the actuator by toggling the switch to "Reset" then back to "Latch." To activate the sampler, ensure the correct program name is displayed on the main menu and select "Run".
8	Ensure the sampler indicates "Program Disabled".
9	Note: The Avalanche refrigeration system is active any time the controller is powered. This is true for all states (including OFF), except for the time between entering RUN and the completion of the first sample, and when the pump is running. To conserve power, the Avalanche assumes that during this time there is no sample liquid to cool.
10	Ensure that all items on the Work Order have been completed.

5.9 STANDING DOWN OR WINTERIZING SAMPLERS

Step	Action
1	Follow the steps in this section when a Work Order is received to turn off ("stand down") a sampler (generally at the end of a field season, which is November 30, or to disable a sampler for a certain time period after a sample was collected). Fill out the LANL MSGP ISCO Sampler Winter Shut-Down Form in Attachment 9.
2	ISCO 3700: Turn off power. ISCO Avalanche: The Avalanche refrigeration system is active any time the controller is powered. This is true for all states (including OFF), except for the time between entering RUN and the completion of the first sample, and when the pump is running. To conserve power, the Avalanche assumes that during this time there is no sample liquid to cool. **NOTE:** To ensure that the refrigeration system does not activate during an intended stand down, disconnect the sampler from the power source.
3	Remove the battery and return it to the storage compound at TA-64 or other specified location identified by ENV-CP MSGP stormwater compliance personnel. Store cables inside the Greenlee™ box. If the actuator and tubing are not contained within conduit, disconnect these and place them in the box. Close sampler. Avalanche samplers must not be left in place for the winter, and are required to be returned to ENV-CP's storage shed.
4	Ensure that all items on the Work Order have been completed.

5.10 SAMPLER RESET AND RE-INITIALIZATION AFTER SAMPLE COLLECTION

Step	Action
1	Follow ENV-CP-QP-047, *Inspecting Storm Water Runoff Samplers and Retrieving Samples for the MSGP* for collecting samples from an ISCO and installing new bottles so it is ready to collect new samples.
2	After collecting samples and resetting the sampler, follow instructions on sample collection Work Order, the updated sample tracking log or confer with the MSGP Project Lead regarding whether the sampler should be disabled. If sampler is to be deactivated, follow the steps specific to each sampler provided in the preceding section. If an ISCO 3700 sampler is to be left activated, reset the actuator by toggling the switch to "Reset" then back to "Latch", and press "Start sampling" and "Enter" twice. Ensure the sampler display indicates "Sampler Inhibited": If an ISCO Avalanche sampler is to be left activated, reset the actuator by toggling the switch to "Reset" then back to "Latch." From the main menu, verify the correct program name is displayed and select "Run." Ensure the sampler display indicates "Program Disabled."

5.11 REMOVING A SAMPLER

Step	Action
1	Follow the steps in this process when a Work Order is received to un-install or remove a sampler. Fill out the LANL MSGP ISCO Sampler Decommission Form in Attachment 10.
2	Disconnect all equipment and remove it from the site. Return the equipment to the ENV-CP Storage Shed or other location specified by MSGP storm water compliance personnel.
3	Dispose of all equipment components that contacted samples (tubing, bottles, etc.) as waste according to applicable waste management procedure. For assistance, contact the Waste Management Coordinator for TA-59.
4	Ensure that all items on the Work Order have been completed.

6.0 REFERENCES

ENV-DO-QP-110, *Records Management Program*

ENV-DO-QP-115, *Personnel Training*

ENV-CP-QP-047, *Inspecting Storm Water Runoff Samplers and Retrieving Samples for the MSGP*

7.0 DEFINITIONS

ENV-CP: Environmental Protection Division, Compliance Programs Group

Grab Sample: A single sample collected at an NPDES outfall (using approved EPA methods) at a particular time that represents the composition of the storm water at that time and place.

IWD: Integrated Work Document

MSGP: Multi-Sector General Permit

MST: Mountain Standard Time

NPDES: National Pollutant Discharge Elimination System

8.0 ATTACHMENTS

Attachment 1- LANL MSGP ISCO Sampler Installation Form 045-1

Attachment 2- Wiring Diagram for Avalanche Sampler

Attachment 3 – Battery Photovoltaic Connection Wiring

Attachment 4 - ISCO 3700 Configuration Settings

Attachment 5 – ISCO 3700 Program Sequence

Attachment 6 – LANL MSGP ISCO Sampler Activation Form 045-3

Attachment 7 – ISCO Avalanche Configuration Settings

Attachment 8 – ISCO Avalanche Program Sequence

Attachment 9 – LANL MSGP ISCO Sampler Winter Shut-Down Form 045-5

Attachment 10 – LANL MSGP ISCO Sampler Decommission Form 045-6

By requesting credit for this required reading I acknowledge that I have read and understand the contents of this document and I will follow and meet the requirements in this document unless it is unsafe to do so.	Click to Acknowledge

ATTACHMENT 1- LANL MSGP ISCO SAMPLER INSTALLATION FORM 045-1

ENV-QP-045.0

LANL Multi-Sector General Permit
ISCO Sampler Installation Form

Form 045-1 (3/2011)

Outfall: 54-G-4 : 54-PAD10E Project ID: P-MSGP-2443 Work Order ID: MSGP-31193

Target Date: 4/1/2013

Project: MSGP 2013 Sampler Install

Reason: MSGP 2013 Sampler Installation

Date:_____ Time:_____

Name/Z#:_____

Name/Z#:_____

Lead Signature:_____

"I confirm the information as recorded is true, accurate and complete."

Verify the equipment list below. Make corrections as required and fill in missing information (e.g., serial numbers).

Equipment	Manufacturer	Model	Serial No.	Specification	Configuration
Actuator	ISCO	1640	210J01660		
Charge Controller	Xantrex	C-12	B20037667		
ISCO 3700 Sampler	Teledyne	3700	198H00978	Bottle Set	12c- 1 1L Glass, 11 1L Poly
ISCO 3700 Sampler	Teledyne	3700	198H00978	Program	Time / Multiplex no delay
ISCO Avalanche Sampler	Teledyne	Avalanche	210J00066	Bottle Set	14 950 mL Poly
ISCO Avalanche Sampler	Teledyne	Avalanche	210J00066	Program	1-Part, 14 Bottles, 950 mL
Pb-Acid Battery	Universal	110 A-h	MSGP-110-0311-07	Voltage	> 11.7 V
Pb-Acid Battery	Universal	110 A-h	MSGP-110-0311-08	Voltage	> 11.7 V
Pb-Acid Battery	Universal	110 A-h	MSGP-110-0311-09	Voltage	> 11.7 V
Solar Panel	SunWize	SW-S85P	11004467		

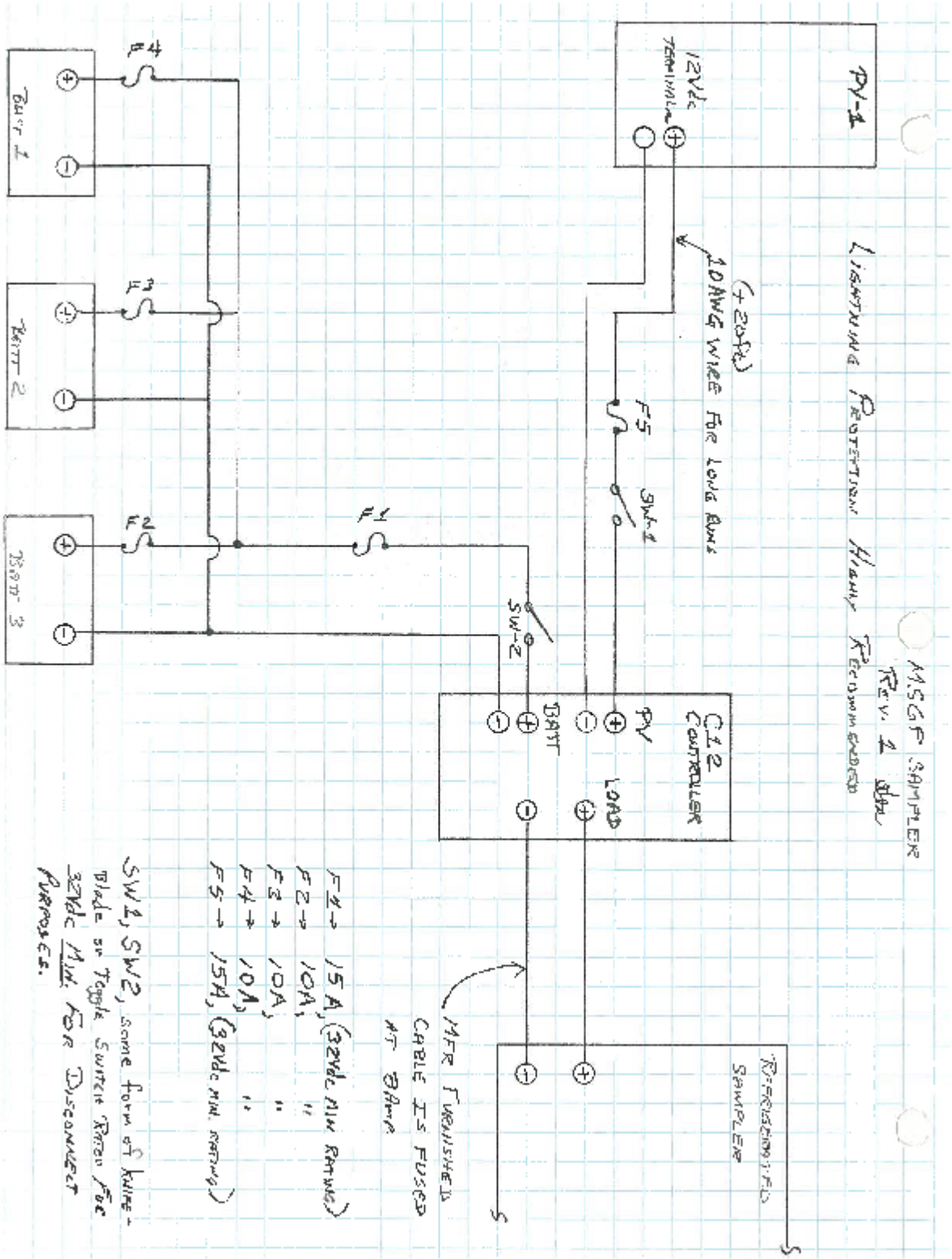
ISCO Sampler Tasks	Note: If "No" provide correct information or explanation.
Deploy battery(ies) if not listed in equipment list above. Record serial numbers of battery(ies) installed.	❒Yes ❒No
Deploy Avalanche sampler matching serial number listed in equipment list above for installation.	❒Yes ❒No
Deploy and install pH and Temperature Probe listed in equipment list above and probe saturation reservior.	❒Yes ❒No
Refer to the wiring diagram in ENV-QP-045.0 for the solar panel, battery configuration, and type of sampler being installed. Has wiring been completed according to instructions?	❒Yes ❒No
Is the sampler installed according to steps in ENV-QP-045.0?	❒Yes ❒No
Is a Greenlee box used?	❒Yes ❒No
Are electrical connections secure?	❒Yes ❒No
Record battery voltage(s). Voltage(s) > 11.7 V ?	❒Yes ❒No
Is the sampler physically configured for the types and number of bottles specified above (i.e., correct carousel, base, arm)?	❒Yes ❒No
Is the sampler programmed correctly per ENV-QP-045.0 for the program / bottle set specified above?	❒Yes ❒No
Does sampler pass the ISCO diagnostics test ?	❒Yes ❒No
Does sample tubing pass suction test?	❒Yes ❒No
Is sampler ON upon departure?	❒Yes ❒No
Does ISCO display either "Sampler Inhibited" or "Program Disabled"?	❒Yes ❒No
Has the actuator switch been reset to "Latch"?	❒Yes ❒No
If any maintenance completed, check YES and describe.	❒Yes ❒No
If any follow-on maintenance is required, check YES and describe.	❒Yes ❒No

LANL PERSONNEL USE ONLY (Initials and dates)

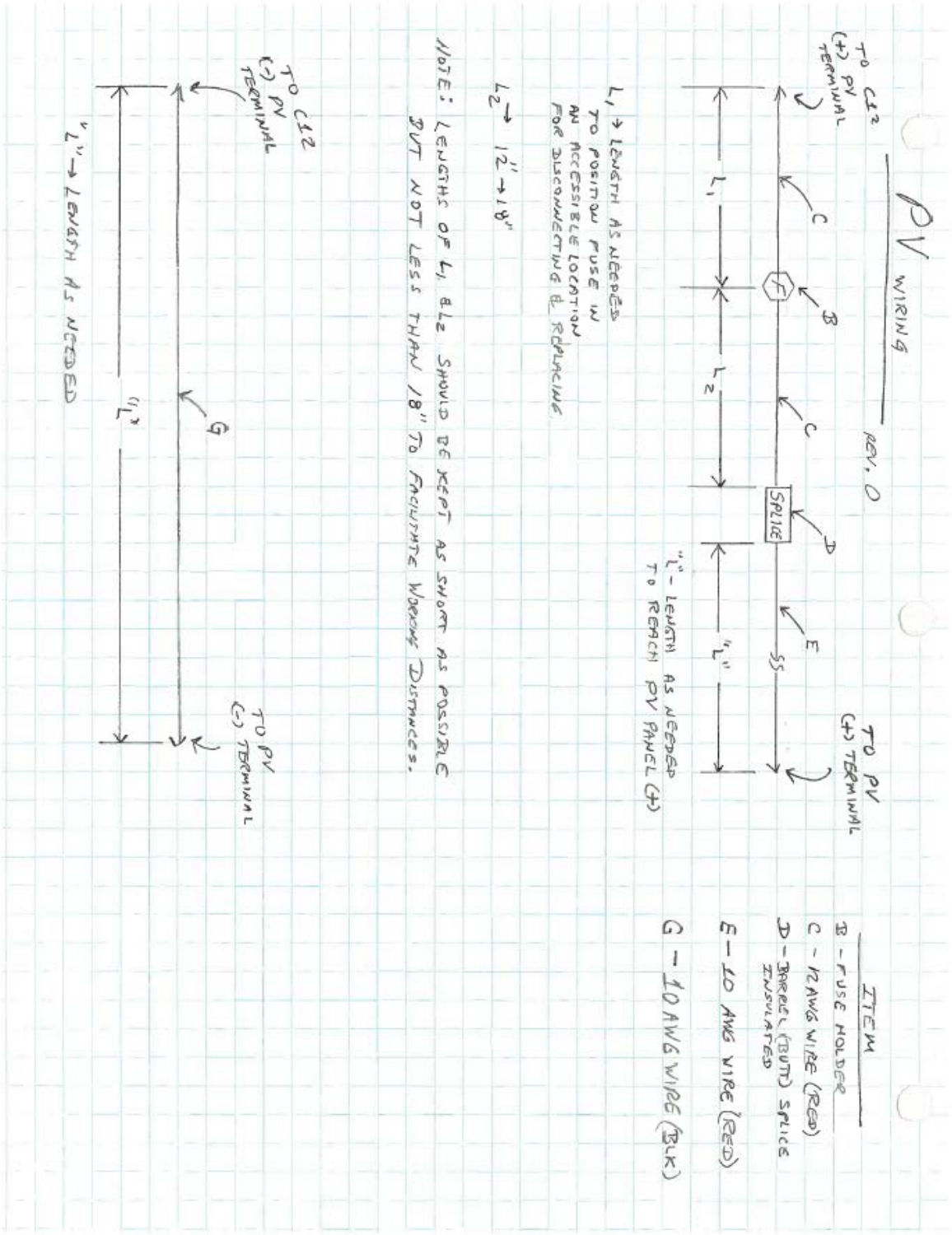
Accepted	Tech QC	ENV-RCRA Review
_____	_____	_____

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ATTACHMENT 2- WIRING DIAGRAM FOR AVALANCHE SAMPLER



ATTACHMENT 3 – BATTERY PHOTOVOLTAIC CONNECTION WIRING



BATTERY CABLE OPTIONS
REV. 0
ITEM
A - TERMINAL LUGS
B - FUSE HOLDER
C - 12 AWG WIRE 12" (RED)
D - BARREL (BUTT) SPLICE INSULATED
E - 20AWG WIRE (RED) 24" (BLACK)
F - 12AWG WIRE 24" (BLACK)
A
C
B
F
C
A
L
≈ 24" RED
BETWEEN (2) TERMINAL BATTERY CONNECTIONS
FROM LAST BATTERY (+) TERMINAL TO (+) BATT INPUT OF CR2 CHRG CONTROLLER
A
C
B
F
C
D
E
SS
SPLICE
≈ 24" RED
"L" → LENGTH AS NEEDED TO REACH CHARGE CONTROLLER
L"
A
F
≈ 24" BLACK
BETWEEN (2) TERMINAL BATTERY CONNECTIONS
FROM LAST BATTERY (-) TERMINAL TO (-) BATT. INPUT OF CR2 CHRG CONTROLLER
A
F
L"
"L" → LENGTH AS NEEDED TO REACH CHARGE CONTROLLER

ATTACHMENT 4 - ISCO 3700 CONFIGURATION SETTINGS

Parameter	Storm sampling with multiplex, timed delay	Time sampling with multiplex	Flow sampling with multiplex
Time/ Date	[Set to MST]	[Set to MST]	[Set to MST]
Portable/ Refrig	Portable	Portable	Portable
Bottles	12 or 24	12 or 24	12 or 24
Bottle volume	950 ml	1000 ml	1000 ml
Suction line diameter	3/8 inch	3/8 inch	3/8 inch
Suction line type	Teflon	Teflon	Teflon
Suction line length	X feet	X feet	X feet
Liquid detector	Enable	Enable	Enable
Rinse cycles	0	1	1
Enter Head Manually	No	Yes	Yes
Retry	1	1	1
Program mode	Extended	Basic	Basic
Load program	None	N/A	N/A
Save program as	None	N/A	N/A
Take sample at start time	No	N/A	N/A
Take sample at time switch	No	N/A	N/A
Enter intervals in minutes	1 minute	N/A	N/A
Calibrate sampler	Disable	Enable	Enable
Sampling stop/resume	Disable	N/A	N/A
Start time delay	0 minutes	0 minutes	0 minutes
Master slave	No	No	No
Sample upon Disable	No	No	No
Sample upon enable	No	Yes	Yes
Reset sample interval	Yes	Yes	No
Inhibit countdown	Yes	Yes	No
Event marker	Pulse	Pulse	Pulse
At the beginning of:	Purge	Purge	Purge
Purge counts presample counts	150	100	100
Post sample counts	394	1000	1000
Pump counts	[500,000]	[500,000]	[500,000]
Reset pump counter	No	No	No
Pump counts to warning	500,000	500,000	500,000
Program lock	Disable	Disable	Disable
Sampler ID number is:	[leave blank]	[leave blank]	[leave blank]
Run diagnostics	Yes	Yes	Yes
Test distributor	Yes	Yes	Yes
Re-initialize	No	No	No

ATTACHMENT 5 – ISCO 3700 PROGRAM SEQUENCE

Parameter	Storm sampling with multiplex, timed delay
[Switch on liquid actuator]	Set to "Latch"
Paced sampling	Storm
Time Mode 1st Bottle Group	X-minute delay
Timed Sample Event	1
Bottle per sample event	11 or 23
Sample volume	950 ml
Bottles available	1
2nd bottle group	Time
2nd group samples	1-minute delay
Sample interval	1 minute
Bottles per sampling event	1
Sample per bottle	1
Sample volume	950 ml
Enter start time	No

[Programming complete]

Parameter	Time sampling with multiplex
[Switch on liquid actuator]	Set to "Latch"
Time/Flow	Time
Min/Hr	1 min
Multiplex samples	Yes
Bottles/sample or Samples/Bottle	Bottles/ sample
Number of bottles	12 or 24
Sample volume	1000 ml
Suction head	XX Ft
Calibrate sample vol	No
Enter start time	No

[Programming complete]

Avalanche Program Sequence, cont.

Parameter	Time sampling, single bottle composite sample	Time sampling, 1-part program	Time sampling, 2-part program
Two-Part Program			
Part A	N/A	N/A	Yes
Assign bottle	N/A	N/A	1-X of 4 or 14
Pacing	N/A	N/A	Uniform time paced
Time between samples	N/A	N/A	1 minute
Distribution	N/A	N/A	Sequential
Bottles per event	N/A	N/A	1
Switch bottles on	N/A	N/A	Number of samples
Switch bottles every X samples	N/A	N/A	1
Run continuously	N/A	N/A	No
Sample volumes dependent on flow?	N/A	N/A	No
Sample volume	N/A	N/A	Select between 10 ml and full container volume
Enable programmed	N/A	N/A	None
Once enabled, stay enabled	N/A	N/A	Yes
Sample at enable	N/A	N/A	Yes
Sample at disable	N/A	N/A	No
Pauses and resumes	N/A	N/A	0
Part B	N/A	N/A	Yes
Pacing	N/A		Uniform time paced
Time between sample events	N/A	N/A	1 minute
Distribution	N/A	N/A	Sequential
Bottles per event	N/A	N/A	1
Switch bottles on	N/A	N/A	Number of samples
Switch bottles every X samples	N/A	N/A	1
Run continuously	N/A	N/A	No
Sample volumes dependent on flow?	N/A	N/A	No
Sample volume	N/A	N/A	Select between 10 ml and full container volume
Enable programmed	N/A	N/A	No

Avalanche Program Sequence, cont.

Parameter	**Time sampling, single bottle composite sample**	**Time sampling, 1-part program**	**Time sampling, 2-part program**
Once enabled, stay enabled	N/A	N/A	Yes
Sample at disable	N/A	N/A	No
Sample at enable	N/A	N/A	Yes
Once enabled, stay enabled	N/A	N/A	Yes
Pauses and resumes	N/A	N/A	0
Delay to start	N/A	N/A	No
Reset Sampler			
Switch on liquid actuator	Toggle to “Reset” then back to “Latch”	Toggle to “Reset” then back to “Latch”	Toggle to “Reset” then back to “Latch”
Select Program name	Run	Run	Run

ATTACHMENT 6 – LANL MSGP ISCO SAMPLER ACTIVATION FORM 045-3

ENV-QP-045.0

LANL Multi-Sector General Permit
ISCO Sampler Activation Form

Form 045-3 (3/2011)

Outfall: **3-PSP-5 : E121.9-ISCO 12** Project ID: **P-MSGP-830** Work Order ID: **MSGP-12785**

Target Date: **4/11/2011**

Project: MSGP Sampler Activation Q1 2011

Reason: MSGP Sampler Activation 2011 Q1

Date:_____ Time:_____

Name/Z#:_____

Name/Z#:_____

Lead Signature:_____

"I confirm the information as recorded is true, accurate and complete."

Equipment	Manufacturer	Model	Serial No.	Specification	Configuration
Actuator	ISCO	1640		Actuator Height	
ISCO Sampler 12c	Teledyne ISCO	ISCO 3700	198H01553	Bottle Set	12c- 1 1L Poly
ISCO Sampler 12c	Teledyne ISCO	ISCO 3700	198H01553	Program	Time / Multiplex no delay
Pb-Acid Battery				Voltage	> 11.7 V

ISCO Sampler Tasks	Note: If "No" provide correct information or explanation.	
Is the ISCO time delta < 1 min (MST)? If no, record adjustment.	❒Yes ❒No	
Does sampler pass the ISCO diagnostics test?	❒Yes ❒No	
Are electrical connections secure?	❒Yes ❒No	
Record battery voltage(s). Is/are voltage(s) > 11.7 V?	❒Yes ❒No	
Does ISCO display either "Bottle 1 of X afer 1" or "Sampler Inhibited"?	❒Yes ❒No	
Is bottle set described above installed?	❒Yes ❒No	
Is recorded height of actuator above channel bottom correct?	❒Yes ❒No	
If any maintenance completed, check Yes: Describe.	❒Yes ❒No	
If any follow-on maintenance is required, check Yes: Describe.	❒Yes ❒No	
Is sampler ON upon departure?	❒Yes ❒No	

Additional Notes:

LANL PERSONNEL USE ONLY (Initials and dates)

Accepted	Tech QC	RNV-RCRA Review
_____	_____	_____

Page 1 of 1 for MSGP-12785

ATTACHMENT 7 – ISCO AVALANCHE CONFIGURATION SETTINGS

ISCO Avalanche Configuration Settings

Parameter	**All programs**
Maintenance	
Set Clock	[Set to MST]
Pump Tube Alarm	[1,000,000]
Reset pump counter	No
Run diagnostics	Yes
Re-initialize	No
Software Options	
Liquid detector	Liquid detect on
Target temperature	°C
Measurement interval	1 minute
Dual sampler mode	Off
Bottle full detect	Yes
Event mark	Every sample
Duration	3 second pulse at initial purge
Presample purge counts	100
Post sample counts	Dependent on head
Periodic serial output	No
Interrogator connector power	Alarm dial-outs only
Manual Functions	
Grab Sample	Manual option
Calibrate volume	Manual option
Operate pump	Manual option
Move distributor	Manual option
Other Settings/Misc	
Suction line diameter	3/8 inch
Suction line type	Teflon
Program lock	Disable

ATTACHMENT 8 – ISCO AVALANCHE PROGRAM SEQUENCE

Parameter	Time sampling, single bottle composite sample	Time sampling, 1-part program	Time sampling, 2-part program
Program			
Program mode	Extended	Extended	Extended
Program name	COMPOSITE	1-PART (# bottles)	2-PART (# bottles)
Site description	Station number	Station number	Station number
Units (length)	ft	ft	ft
Units (temperature)	°C	°C	°C
Data storage interval	1 minute	1 minute	1 minute
Number of bottles	1	4 or 14	4 or 14
Bottle volume	10000 ml, 4000 ml	2000 ml, 950 ml	2000 ml, 950 ml
Suction line length	X feet	X feet	X feet
Enter Head Manually	Yes	Yes	Yes
Rinse cycles	1	1	1
Retries	1	1	1
One-Part Program			
Pacing	Uniform time paced	Uniform time paced	N/A
Time between samples	Every one minute	Every one minute	N/A
Composite	1 sample	N/A	N/A
Run continuously	No	N/A	N/A
Take X sample(s)	1	N/A	N/A
Distribution	N/A	Sequential	N/A
Volume	Select between 10 ml and full container volume	Select between 10 ml and full container volume	N/A
Sample volumes dependent on flow	No	No	N/A
Enable programmed	None	None	N/A
Once enabled, stay enabled	Yes	Yes	N/A
Sample at enable	Yes	Yes	N/A
Sample at disable	No	No	N/A
Pauses and resumes	0	0	N/A
Delay to start	No	No	N/A

ATTACHMENT 9 – LANL MSGP ISCO SAMPLER WINTER SHUT-DOWN FORM 045-5

ENV-QP-045.0

LANL Multi-Sector General Permit
ISCO Sampler Winter Shutdown Form

Form 045-5 (3/2011)

Outfall: **3-PSP-5 : E121.9-ISCO 12** Project ID: **P-MSGP-833** Work Order ID: **MSGP-12803**

Target Date: **11/30/2011**

Project: MSGP ISCO Sampler Winter Shutdown

Reason: MSGP Sampler Winter Shutdown 2011

Date:_____ Time:_____

Name/Z#:_____

Name/Z#:_____

Lead Signature:_____

"I confirm the information as recorded is true, accurate and complete."

Verify the equipment list below. Make corrections as required and fill in missing information (e.g., serial numbers).

Equipment	Manufacturer	Model	Serial No.	Specification	Configuration
Actuator	ISCO	1640		Actuator Height	
ISCO Sampler 12c	Teledyne ISCO	ISCO 3700	198H01553	Bottle Set	12c- 1 1L Poly
ISCO Sampler 12c	Teledyne ISCO	ISCO 3700	198H01553	Program	Time / Multiplex no delay
Pb-Acid Battery				Voltage	> 11.7 V

ISCO Sampler Tasks	Note: If "No" provide correct information or explanation.	
Turn ISCO unit "OFF."	❒Yes ❒No	
Place caps securely on bottles in the sample carousel.	❒Yes ❒No	
Verify equipment list above.	❒Yes ❒No	
ISCO 3700 Sampler Units		
Disconnect and remove battery. Transport battery to MSGP stockroom for maintenance and storage.	❒Yes ❒No	
Place battery cables securely inside Greenlee box or ISCO casing.	❒Yes ❒No	
Pull up actuator and tubing and store in Greenlee box or ISCO casing.	❒Yes ❒No	
Avalanche ISCO Sampler Units:		
Disconnect and remove batteries. Transport batteries to MSGP stockroom for maintenance and storage.	❒Yes ❒No	
Place battery cables securely inside Greenlee box or ISCO casing.	❒Yes ❒No	
Pull up actuator and tubing and store inside Greenlee box or ISCO casing.	❒Yes ❒No	
Transport Avalanche sampler to MSGP stockroom for maintenance and storage.	❒Yes ❒No	

Additional Notes:

LANL PERSONNEL USE ONLY (Initials and dates)		
Accepted	Tech QC	ENV-RCRA Review
_____	_____	_____

ATTACHMENT 10 – LANL MSGP ISCO SAMPLER DECOMMISSION FORM 045-6

ENV-QP-045.0

LANL Multi-Sector General Permit
ISCO Sampler Decommission Form

Form 045-6 (3/2011)

Outfall: **3-PSP-5 : E121.9-ISCO 12** Project ID: **P-MSGP-834** Work Order ID: **MSGP-12804**

Target Date: 7/27/2011

Project: MSGP Sampler Station Decommission

Reason: MSGP Sampler Decommission

Date:_____ Time:_____

Name/Z#:_____

Name/Z#:_____

Lead Signature:_____

"I confirm the information as recorded is true, accurate and complete."

Verify the equipment list below. Make corrections as required and fill in missing information (e.g., serial numbers).

Equipment	Manufacturer	Model	Serial No.	Specification	Configuration
Actuator	ISCO	1640		Actuator Height	
ISCO Sampler 12c	Teledyne ISCO	ISCO 3700	198H01553	Bottle Set	12c- 1 1L Poly
ISCO Sampler 12c	Teledyne ISCO	ISCO 3700	198H01553	Program	Time / Multiplex no delay
Pb-Acid Battery				Voltage	> 11.7 V

ISCO Sampler Tasks	Note: If "No" provide correct information or explanation.	
Is equipment list above complete and accurate?	❒Yes ❒No	
Turn sampler "OFF." Remove bottles from carousel.	❒Yes ❒No	
Disconnect and remove battery(ies), solar panel, and cables (as applicable).	❒Yes ❒No	
Pull up actuator and tubing. Disconnect from sampler unit.	❒Yes ❒No	
Uninstall Greenlee box, as applicable.	❒Yes ❒No	
Transport all removed equipment to the MSGP stockroom for maintenance and storage.	❒Yes ❒No	

Additional Notes:

LANL PERSONNEL USE ONLY (Initials and dates)

Accepted	Tech QC	ENV-RCRA Review
_____	_____	_____

ENV-CP-QP-045.1	
Effective Date: September 5, 2013	Next Review Date: August 5, 2015

Environment, Safety, Health Directorate

Environmental Protection – Compliance Programs Quality Procedure

Installing, Setting Up, and Operating ISCO Samplers for the MSGP

Reviewers:

Name:	Organization:	Signature:	Date:
Melanie Lamb	ADESH-OIO, QA Specialist	Signature on file	8/28/13

Derivative Classifier: ☐ **Unclassified** ☒ **DUSA_ENVPRO**

Name:	Organization:	Signature:	Date:
Ellena Martinez	ADESH-OIO	Signature on file	8/28/13

Approval Signatures:

Subject Matter Expert:	Organization:	Signature:	Date:
Holly Wheeler	ENV-CP	Signature on file	8/29/13
Responsible Line Manager:	Organization:	Signature:	Date:
Michael Saladen	ENV-CP Team Lead	Signature on file	8/29/13
Responsible Line Manager:	Organization:	Signature:	Date:
Anthony Grieggs	ENV-CP Group Leader	Signature on file	9/5/13

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History of Revisions

Document Number *[Include revision number, beginning with Revision 0]*	**Effective Date** *[Document Control Coordinator inserts effective date]*	**Description of Changes** *[List specific changes made since the previous revision]*
0	03/11	New Document.
1	04/13	Biennial Review and Revision
2	09/13	Biennial Review and Revision

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1.0 PURPOSE

This procedure describes the installation, setup, programming, and operation of Teledyne ISCO Avalanche and Model 3700 full-size portable automated samplers used to collect storm water runoff samples for the Multi-Sector General Permit (MSGP).

2.0 SCOPE

This procedure applies to all ENV-CP technical staff and contractor personnel conducting installation, operation, maintenance and sampling activities at single stage stations used for monitoring under the MSGP.

2.1 HAZARD REVIEW

Hazards in the work described in this procedure are controlled thorough site specific IWDs. The hazard level of the activities in this procedure is **moderate**.

3.0 RESPONSIBILITIES

The following personnel require training before implementing this procedure:

- This procedure applies to all ENV-CP MSGP storm water compliance personnel conducting installation, operation, maintenance and sampling activities at MSGP single stage monitoring stations.

The training method for this procedure is “self-study” (reading). For ENV-CP staff, this is documented in accordance with ENV-DO-QP-115, *Personnel Training*. Other participating groups may require training documentation pursuant to local procedures.

Actions specified within this procedure, unless proceeded with “should” or “may,” are to be considered mandatory (i.e., “shall”, “will”, “must”).

3.1 PREREQUISITES

Personnel performing this procedure will be familiar with the most current versions of the following procedures and operation manuals:

- ENV-CP MSGP Sampling and Analysis Plan for the current monitoring year
- Manual for Teledyne ISCO Sampler Model 3700.
- Manual for Teledyne ISCO Avalanche refrigerated sampler
- Facility/FOD specific IWDs for the MSGP

4.0 DOCUMENT CONTROL/RECORDS MANAGEMENT

The following records are generated as a result of this procedure and are maintained in accordance with ENV-DO-QP-110, *Records Management Program* with the originals on file at ENV-CP offices:

Completed work orders for:

- LANL MSGP ISCO Sampler Installation Form 045-1(Attachment 1)
- LANL MSGP ISCO Sampler Activation Form 045-3 (Attachment 6)
- LANL MSGP ISCO Sampler Winter Shutdown 045-5 (Attachment 9)
- LANL MSGP ISCO Sampler Decommission 045-6 (Attachment 10)

5.0 WORK PROCESSES

The discharge of storm water from industrial facilities at Los Alamos National Laboratory (LANL, the Laboratory) is regulated under the National Pollutant Discharge Elimination System (NPDES) *Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity* (MSGP). The current MSGP became effective on September 29, 2008 pursuant to 73 FR 56572. The Laboratory's MSGP permit coverage (Permit Tracking No. NMR05GB21) requires storm water quality monitoring to evaluate the overall effectiveness of control measures. ISCO samplers coupled with Model 1640 sampler actuators are used at MSGP Program monitoring stations. Refrigerated (Avalanche) and/or non-refrigerated (Model 3700) samplers may be deployed; and may be configured with multi-battery arrays, solar panels, and surge protectors.

5.1 EQUIPMENT AND TOOLS

Ensure the following equipment is available in the field vehicle:

- Copy of this procedure
- Copy of the appropriate Integrated Work Document(s) (IWDs)
- Charged spare battery(ies)
- Battery voltage tester
- Spare tubing (pump, suction, discharge types, sampler specific)
- Spare sample bottles
- Shovels
- Wooden stakes
- Plastic wire "zip" ties
- Cell phone (only government cell phones with the battery removed are allowed in secure areas)
- Appropriate tools (including insulated tools for electrical work) in tool box
- Issued Work Orders and associated forms
- Necessary access and station keys
- Ziploc® plastic storage bags
- Tape measure
- Sturdy hiking boots or steel toed shoes with soles that grip

The time on the ISCO sampler clock must be verified upon arrival at the site. The ISCO clocks must be set to Mountain Standard Time (MST) at all times, with no daylight saving time adjustment. Cellular phones can be used to verify the time.

5.2 ISCO SAMPLER INSTALLATION

Step	Action
1	Work Orders are issued for all field operations at individual MSGP monitored outfalls. Obtain the Work Order with the LANL MSGP ISCO Sampler Installation Form 045-1 (Attachment 1). The Work Order specifies the MSGP outfall and target date for the work to be performed. An outfall-specific equipment list with specifications and configuration settings is provided on each Work Order.
2	Deploy the ISCO sampler and charged battery on level ground above the flood plain. Often, large tool/storage boxes (Greenlee™) are used for equipment protection in the field. **NOTE:** These boxes are locked. Therefore, a key should be obtained prior to accessing them. The sampler should be as level as possible to allow effective sample collection. Verify/record the ISCO sampler serial number and the battery tracking number(s) on the Work Order.
3	Install the separate protective battery box for the charged battery (follow manufacturer's instructions).
4	Determine the bottle set configuration from the equipment list on the Work Order. • If a Model 3700 sampler is indicated, install the correct distributor arm (has either "12" or "24" embossed on bottom at outlet). • For an Avalanche sampler, attach either the discharge tube guide (single bottle configuration) or the distributor arm (multi-bottle configuration) and the appropriate bottle adapter plate. If an adapter plate is not available, the inside of the sampler may need to be configured by hand (i.e., add form) to prevent bottles from moving around during a sampling event. • Install required bottles and retaining devices in the sampler base. • Check that the end of the discharge tubing does not extend below the bottom face of the distributor arm (where it could snag the bottle tops and jam as the arm advances through the bottle sequence). • Remove and place the clean bottle caps in a new Ziploc® plastic bag.
5	Attach a length (in whole foot increments) of 3/8-inch diameter Teflon suction line to the sampler intake line and anchor as needed for the Outfall location. Measure and record (for later programming steps) the tubing length used. Route the sample tubing downslope from the sampler to the intake point so that there is a continuous slope with no valleys that could retain water between sample intervals.
6	Install the actuator: • Anchor a stake to the channel bottom in the main flow of the outfall discharge. • Attach the sampler intake tube and the 1640 liquid level detector (actuator) to the stake. • Position the actuator at least ½ inch above the intake tube to ensure there is enough water to submerge the intake when the sampler is activated. • Connect the actuator to the sampler using the cable connector provided by the manufacturer. • If necessary, use a gravel bag to create a small pooling area for the actuator and sampler intake to sit in. The actuator height above the channel bottom is established using professional judgment. For example, the intake may be positioned 1 inch or less above the bottom of low-flowing wide channels, but higher than 1 inch in a high-flowing narrow channel.

7	**NOTE:** You must be a trained electrical worker and have completed all required courses in Training Plan #2876 to conduct this step. Connect the sampler to the power source, either a 12 Volt 110 A-h deep cycle lead acid battery or other power source such as a multi-battery array coupled with a solar panel, as appropriate. Record the battery tracking numbers in the equipment list section of the Work Order. (Refer to Attachments 2 and 3 for the wiring diagram for Avalanche sampler installation.)

5.3 CONFIGURING ISCO 3700 SAMPLERS

Step	Action
1	When a new ISCO 3700 sampler is being installed, configure the sampler in accordance with the steps contained in this section. Follow the project-specific configuration settings as indicated on the Work Order and given in Attachment 4, ISCO 3700 Configuration Settings.
2	Turn on the sampler by pressing the "On" button.
3	Press the "Enter/Program" button.
4	Select "Configuration".
5	Set the configuration parameters in accordance with the guidance in Attachment 4, ISCO 3700 Configuration Settings. After each selection is made, press the "Enter" button to allow the next configuration parameter to be displayed on the screen.
6	After the programming is complete, select "Run diagnostics" and press "Enter" to run the system diagnostic test. The diagnostic tests include the following: • RAM and ROM test • LCD test • Pump test ("OFF/ON" number should be between 50 and 200 for a successful test) • Distributor test -- select "YES" to run test. Test will move the distributor to Position 24 and then return it to Position 1.
7	Following the diagnostic tests, "Reinitialize Controller" will be displayed. Select "No" and press "Enter." Do not select "Yes." If "Yes" is selected, the sampler will reset a number of configuration and program settings to the factory default values.
8	To leave the configuration sequence, use the "Exit configuration" and press "Yes" or press the "Enter/Program" key.

5.4 PROGRAMMING ISCO 3700 SAMPLERS

Step	Action
1	Follow the steps in this process to program a new ISCO or to confirm the program settings are correct for a specific location. Follow the project-specific program settings as indicated on the

	work order and given in Attachment 5, ISCO 3700 Program Sequence.
2	Turn on the sampler by pressing the “ON” button
3	Press the “Enter/Program” button.
4	Select “Program”.
5	Set the program parameters in accordance with the guidance on Attachment 5, ISCO 3700 Program Sequence. After each selection is made, press the “Enter” button to allow the next configuration parameter to be displayed on the screen.
6	Set the switch on the actuator to “Latch.”
7	**NOTE:** You must be a trained electrical worker and have completed all required courses in Training Plan #2876 to conduct this step.
8	Complete the responses for the sampler installation tasks listed on the Work Order. Sign and date the Work Order and ensure all items contained within it have been completed.

5.5 ACTIVATING ISCO 3700 SAMPLERS

Step	Action
1	Follow the steps in this section when a Work Order is received to activate a sampler (generally at the beginning of a field season or at the beginning of the next quarter after the last quarterly monitoring sample was obtained). Note: The MSGP monitoring quarters are as follows • April 1 through May 31 • June 1 through July 31 • August 1 through September 30, and • October 1, through November 30.
2	Obtain the Work Order with the LANL MSGP Sampler Activation Form 045-3 (Attachment 6). The Work Order specifies the MSGP Outfall and target date for the work to be performed. An Outfall-specific equipment list with specifications and configuration settings is provided on each Work Order. **NOTE:** You must be a trained electrical worker and have completed all required courses in Training Plan #2876 to conduct this step. If not already installed, install and hook up the charged battery. If a battery is already in place, use the voltage tester to check for minimum voltage of 11.7 volts. If the voltage is lower, replace the battery with a charged battery.
3	Turn the sampler ON. “Program halted” will be displayed; press the Enter/Program button to enter program/configure sequence.
4	Check the configuration and programming parameters to ensure they are still correct for the specific installation (see Attachment 4 and 5 for the correct parameters).
5	Check integrity and condition of sampler tubing, actuator, wiring, etc., to ensure sampler will properly collect a sample.

6	To test the integrity of the tubing, press "Pump forward" to turn on pump and test for suction at the tubing intake. Press "Stop" to turn off pump. If no suction is felt at the intake, check the integrity of the tubing and replace as necessary.
7	To activate the sampler, press "Start sampling" and "Enter" twice.
8	Ensure the sampler indicates "Sampler Inhibited".
9	Complete the responses for the sampler activation tasks listed on the Work Order. Sign and date the Work Order and ensure all items contained within it have been completed.

5.6 CONFIGURING ISCO AVALANCHE SAMPLERS

Step	Action
1	When a new ISCO Avalanche sampler is being installed, configure the sampler in accordance with the steps contained in this section. Follow the project-specific configuration settings as indicated on the work order and given in Attachment 8, ISCO Avalanche Configuration Settings.
2	Turn on the sampler by pressing the "Standby" key.
3	From the main menu, select Other Functions, to access the menus and select options given in Attachment 8.
4	Set the configuration parameters in accordance with the guidance on Attachment 8, ISCO Avalanche Configuration Settings.
5	After the programming is complete, select "Run diagnostics" and press "Enter" to run the system diagnostic test. These include the following: • RAM and ROM test • Pump test ("ON/OFF" ratio should be between 0.80 and 1.25 for a successful test) • Distributor test -- select "YES" to run test. Test will move the distributor to Position 14 and then return it to Position 1.
6	Following the diagnostic tests, "Reinitialize Controller" will be displayed. Select "No" and press the "Enter" key. (If "Yes" is selected, the sampler will reset a number of configuration and program settings to the factory default values).
7	If a 700 series module (e.g., pH) is to be installed, consult the equipment manufacturer's manual for installation instructions. **NOTE:** The pH module is only required at the Asphalt Batch Plant.
8	Complete the responses for the sampler installation tasks listed on the Work Order. Sign and date the Work Order and ensure all items contained within it have been completed.

5.7 PROGRAMMING ISCO AVALANCHE SAMPLERS

Step	Action
1	Follow the steps in this process to program a new ISCO or to confirm the program settings are correct for a specific location and bottle configuration. Follow the project-specific program settings as indicated on the work order and given in Attachment 8, ISCO Avalanche Program Sequence.
2	Turn on the sampler by pressing the "Standby" key.
3	Press the "Program" button.
4	Select the current program to review settings, or choose "Select New Program" to create a new program with different settings.
5	Select the current program to review settings, or choose "Select New Program" to create a new program with different settings.
6	At the prompt "Programming complete, run this program now?" , select "Yes" if sampler is scheduled to be active, and "No" if sampler is in stand down.
7	Set switch on actuator to "Latch."
8	Complete the responses for the sampler installation tasks listed on the Work Order. Sign and date the Work Order and ensure all items within it have been completed.

5.8 ACTIVATING ISCO AVALANCHE SAMPLERS

Step	Action
1	Follow the steps in this section when a Work Order is received to activate a sampler (generally at the beginning of a field season or at the beginning of the next quarter after the last quarterly monitoring sample was obtained). Note: The MSGP monitoring quarters are as follows • April 1 through May 31 • June 1 through July 31 • August 1 through September 30, and • October 1, through November 30.
2	**NOTE:** You must be a trained electrical worker and have completed all required courses in Training Plan #2876 to conduct this step. If not already installed, install and hook up the charged battery(ies). If a battery is already in place, use the voltage tester to check for minimum voltage of 11.7 volts. If the voltage is lower, replace the battery with a charged battery.
3	Turn on sampler power. From the main menu, select "Program" and the "Enter" key to enter programming sequence, and "Other Functions" to enter the configuration settings.
4	Check the programming/configuration parameters to ensure they are still correct for the specific installation – follow the two preceding sections for the steps and see Attachment 7 and 8 for the correct parameters.
5	Check integrity and condition of sampling tubes, actuator, wiring, etc., to ensure sampler

	will properly collect a sample.
6	From the main menu, select "Other Functions" ►"Manual Functions" ►"Operate Pump" to perform a manual suction test. To test the integrity of the tubing, press "Pump forward" to turn on pump and test for suction at the tubing intake. Press "Stop" to turn off pump. If no suction is felt at the intake, check the integrity of the tubing and replace as necessary.
7	Reset the actuator by toggling the switch to "Reset" then back to "Latch." To activate the sampler, ensure the correct program name is displayed on the main menu and select "Run".
8	Ensure the sampler indicates "Program Disabled".
9	Note: The Avalanche refrigeration system is active any time the controller is powered. This is true for all states (including OFF), except for the time between entering RUN and the completion of the first sample, and when the pump is running. To conserve power, the Avalanche assumes that during this time there is no sample liquid to cool.
10	Ensure that all items on the Work Order have been completed.

5.9 STANDING DOWN OR WINTERIZING SAMPLERS

Step	Action
1	Follow the steps in this section when a Work Order is received to turn off ("stand down") a sampler (generally at the end of a field season, which is November 30, or to disable a sampler for a certain time period after a sample was collected). Fill out the LANL MSGP ISCO Sampler Winter Shut-Down Form in Attachment 9.
2	ISCO 3700: Turn off power. ISCO Avalanche: The Avalanche refrigeration system is active any time the controller is powered. This is true for all states (including OFF), except for the time between entering RUN and the completion of the first sample, and when the pump is running. To conserve power, the Avalanche assumes that during this time there is no sample liquid to cool. **NOTE:** To ensure that the refrigeration system does not activate during an intended stand down, disconnect the sampler from the power source.
3	Remove the battery and return it to the storage compound at TA-64 or other specified location identified by ENV-CP MSGP stormwater compliance personnel. Store cables inside the Greenlee™ box. If the actuator and tubing are not contained within conduit, disconnect these and place them in the box. Close sampler. Avalanche samplers must not be left in place for the winter, and are required to be returned to ENV-CP's storage shed.
4	Ensure that all items on the Work Order have been completed.

5.10 SAMPLER RESET AND RE-INITIALIZATION AFTER SAMPLE COLLECTION

Step	Action
1	Follow ENV-CP-QP-047, *Inspecting Storm Water Runoff Samplers and Retrieving Samples for the MSGP* for collecting samples from an ISCO and installing new bottles so it is ready to collect new samples.
2	After collecting samples and resetting the sampler, follow instructions on sample collection Work Order, the updated sample tracking log or confer with the MSGP Project Lead regarding whether the sampler should be disabled. If sampler is to be deactivated, follow the steps specific to each sampler provided in the preceding section. If an ISCO 3700 sampler is to be left activated, reset the actuator by toggling the switch to "Reset" then back to "Latch", and press "Start sampling" and "Enter" twice. Ensure the sampler display indicates "Sampler Inhibited": If an ISCO Avalanche sampler is to be left activated, reset the actuator by toggling the switch to "Reset" then back to "Latch." From the main menu, verify the correct program name is displayed and select "Run." Ensure the sampler display indicates "Program Disabled."

5.11 REMOVING A SAMPLER

Step	Action
1	Follow the steps in this process when a Work Order is received to un-install or remove a sampler. Fill out the LANL MSGP ISCO Sampler Decommission Form in Attachment 10.
2	Disconnect all equipment and remove it from the site. Return the equipment to the ENV-CP Storage Shed or other location specified by MSGP storm water compliance personnel.
3	Dispose of all equipment components that contacted samples (tubing, bottles, etc.) as waste according to applicable waste management procedure. For assistance, contact the Waste Management Coordinator for TA-59.
4	Ensure that all items on the Work Order have been completed.

6.0 REFERENCES

ENV-DO-QP-110, *Records Management Program*

ENV-DO-QP-115, *Personnel Training*

ENV-CP-QP-047, *Inspecting Storm Water Runoff Samplers and Retrieving Samples for the MSGP*

7.0 DEFINITIONS

ENV-CP: Environmental Protection Division, Compliance Programs Group

Grab Sample: A single sample collected at an NPDES outfall (using approved EPA methods) at a particular time that represents the composition of the storm water at that time and place.

IWD: Integrated Work Document

MSGP: Multi-Sector General Permit

MST: Mountain Standard Time

NPDES: National Pollutant Discharge Elimination System

8.0 ATTACHMENTS

Attachment 1- LANL MSGP ISCO Sampler Installation Form 045-1

Attachment 2- Wiring Diagram for Avalanche Sampler

Attachment 3 – Battery Photovoltaic Connection Wiring

Attachment 4 - ISCO 3700 Configuration Settings

Attachment 5 – ISCO 3700 Program Sequence

Attachment 6 – LANL MSGP ISCO Sampler Activation Form 045-3

Attachment 7 – ISCO Avalanche Configuration Settings

Attachment 8 – ISCO Avalanche Program Sequence

Attachment 9 – LANL MSGP ISCO Sampler Winter Shut-Down Form 045-5

Attachment 10 – LANL MSGP ISCO Sampler Decommission Form 045-6

By requesting credit for this required reading I acknowledge that I have read and understand the contents of this document and I will follow and meet the requirements in this document unless it is unsafe to do so.	Click to Acknowledge

ATTACHMENT 1- LANL MSGP ISCO SAMPLER INSTALLATION FORM 045-1

ENV-QP-045.0

LANL Multi-Sector General Permit
ISCO Sampler Installation Form

Form 045-1 (3/2011)

Outfall: 54-G-4 : 54-PAD10E Project ID: P-MSGP-2443 Work Order ID: MSGP-31193

Target Date: 4/1/2013

Project: MSGP 2013 Sampler Install

Reason: MSGP 2013 Sampler Installation

Date:_____ Time:_____

Name/Z#:_____

Name/Z#:_____

Lead Signature:_____

"I confirm the information as recorded is true, accurate and complete."

Verify the equipment list below. Make corrections as required and fill in missing information (e.g., serial numbers).

Equipment	Manufacturer	Model	Serial No.	Specification	Configuration
Actuator	ISCO	1640	210J01660		
Charge Controller	Xantrex	C-12	B20037667		
ISCO 3700 Sampler	Teledyne	3700	198H00978	Bottle Set	12c- 1 1L Glass, 11 1L Poly
ISCO 3700 Sampler	Teledyne	3700	198H00978	Program	Time / Multiplex no delay
ISCO Avalanche Sampler	Teledyne	Avalanche	210J00066	Bottle Set	14 950 mL Poly
ISCO Avalanche Sampler	Teledyne	Avalanche	210J00066	Program	1-Part, 14 Bottles, 950 mL
Pb-Acid Battery	Universal	110 A-h	MSGP-110-0311-07	Voltage	> 11.7 V
Pb-Acid Battery	Universal	110 A-h	MSGP-110-0311-08	Voltage	> 11.7 V
Pb-Acid Battery	Universal	110 A-h	MSGP-110-0311-09	Voltage	> 11.7 V
Solar Panel	SunWize	SW-S85P	11004467		

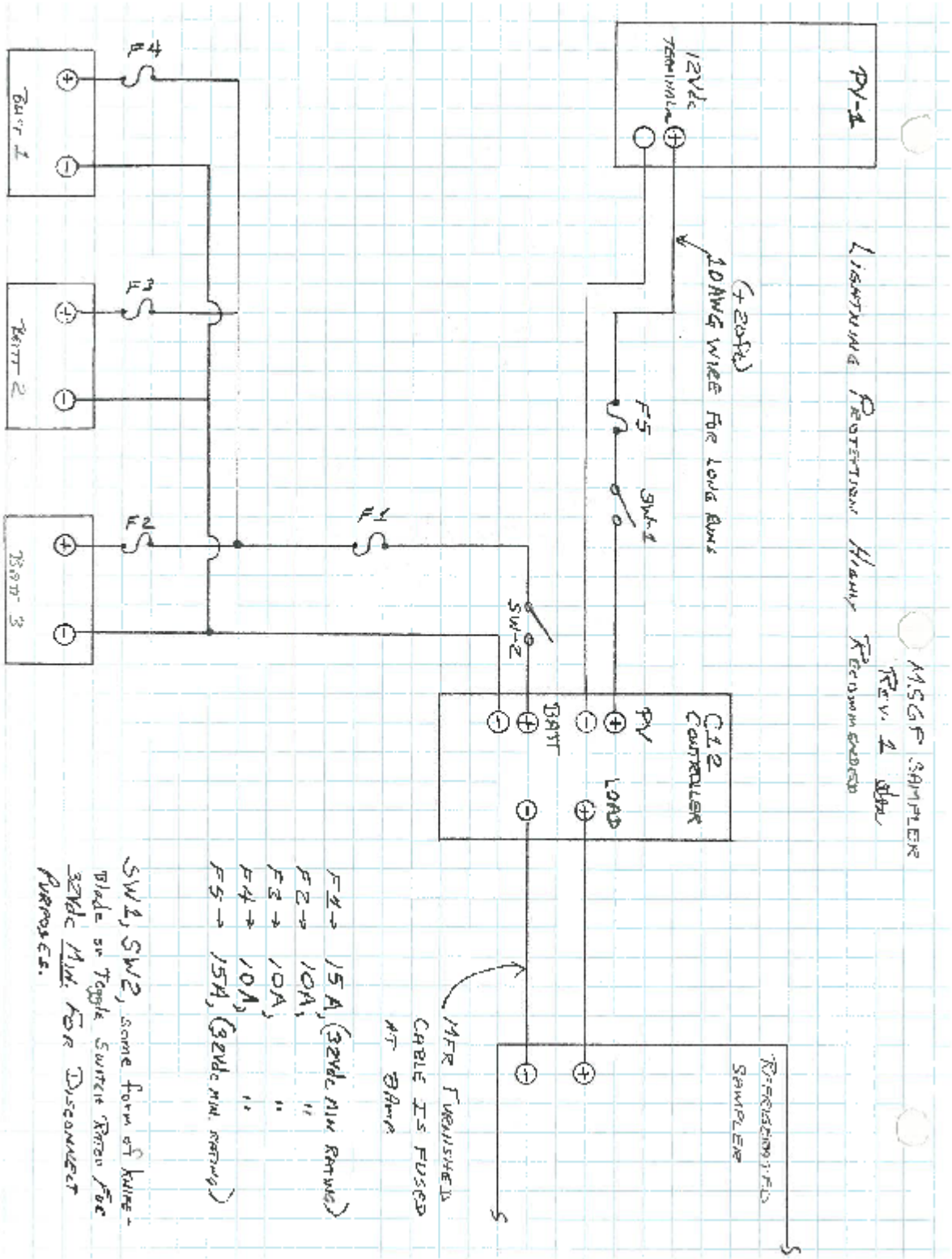
ISCO Sampler Tasks	Note: If "No" provide correct information or explanation.
Deploy battery(ies) if not listed in equipment list above. Record serial numbers of battery(ies) installed.	❒Yes ❒No
Deploy Avalanche sampler matching serial number listed in equipment list above for installation.	❒Yes ❒No
Deploy and install pH and Temperature Probe listed in equipment list above and probe saturation reservior.	❒Yes ❒No
Refer to the wiring diagram in ENV-QP-045.0 for the solar panel, battery configuration, and type of sampler being installed. Has wiring been completed according to instructions?	❒Yes ❒No
Is the sampler installed according to steps in ENV-QP-045.0?	❒Yes ❒No
Is a Greenlee box used?	❒Yes ❒No
Are electrical connections secure?	❒Yes ❒No
Record battery voltage(s). Voltage(s) > 11.7 V ?	❒Yes ❒No
Is the sampler physically configured for the types and number of bottles specified above (i.e., correct carousel, base, arm)?	❒Yes ❒No
Is the sampler programmed correctly per ENV-QP-045.0 for the program / bottle set specified above?	❒Yes ❒No
Does sampler pass the ISCO diagnostics test ?	❒Yes ❒No
Does sample tubing pass suction test?	❒Yes ❒No
Is sampler ON upon departure?	❒Yes ❒No
Does ISCO display either "Sampler Inhibited" or "Program Disabled"?	❒Yes ❒No
Has the actuator switch been reset to "Latch"?	❒Yes ❒No
If any maintenance completed, check YES and describe.	❒Yes ❒No
If any follow-on maintenance is required, check YES and describe.	❒Yes ❒No

LANL PERSONNEL USE ONLY (Initials and dates)

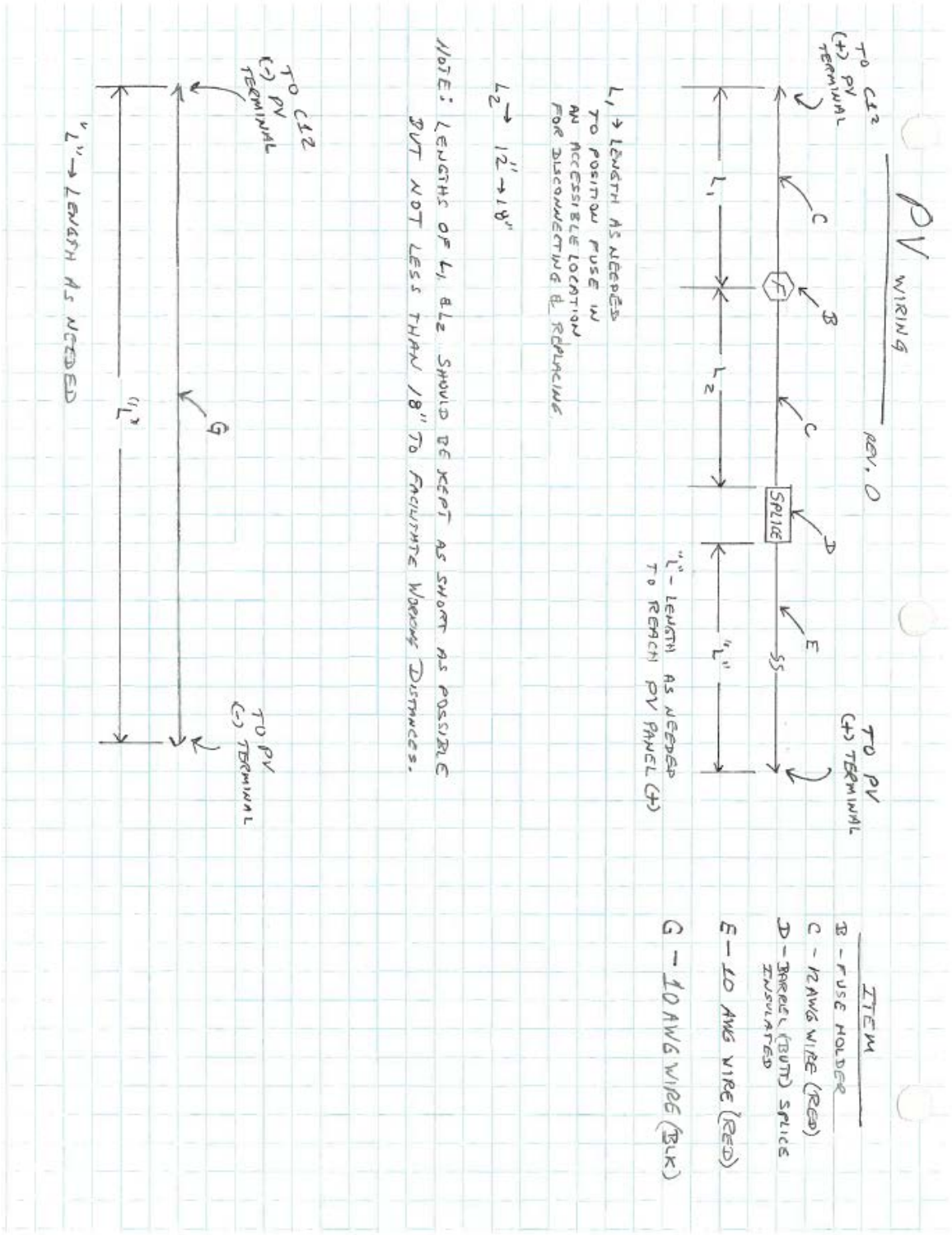
Accepted	Tech QC	ENV-RCRA Review
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ATTACHMENT 2- WIRING DIAGRAM FOR AVALANCHE SAMPLER



ATTACHMENT 3 – BATTERY PHOTOVOLTAIC CONNECTION WIRING



BATTERY CABLE OPTIONS
REV. 0
ITEM
A - TERMINAL LUGS
B - FUSE HOLDER
C - 12 AWG WIRE 12" (RED)
D - BARREL (BUTT) SPLICE INSULATED
E - 20AWG WIRE (RED) 24" (BLACK)
F - 12AWG WIRE 24" (BLACK)
A
C
B
F
C
A
L
≈ 24" RED
BETWEEN (2) TERMINAL BATTERY CONNECTIONS
FROM LAST BATTERY (+) TERMINAL TO (+) BATT INPUT OF CR2 CHRG CONTROLLER
A
C
B
F
C
D
E
SS
SPLICE
≈ 24" RED
"L" → LENGTH AS NEEDED TO REACH CHARGE CONTROLLER
L"
A
F
≈ 24" BLACK
BETWEEN (2) TERMINAL BATTERY CONNECTIONS
FROM LAST BATTERY (-) TERMINAL TO (-) BATT. INPUT OF CR2 CHRG CONTROLLER
A
F
L"
"L" → LENGTH AS NEEDED TO REACH CHARGE CONTROLLER

ATTACHMENT 4 - ISCO 3700 CONFIGURATION SETTINGS

Parameter	Storm sampling with multiplex, timed delay	Time sampling with multiplex	Flow sampling with multiplex
Time/ Date	[Set to MST]	[Set to MST]	[Set to MST]
Portable/ Refrig	Portable	Portable	Portable
Bottles	12 or 24	12 or 24	12 or 24
Bottle volume	950 ml	1000 ml	1000 ml
Suction line diameter	3/8 inch	3/8 inch	3/8 inch
Suction line type	Teflon	Teflon	Teflon
Suction line length	X feet	X feet	X feet
Liquid detector	Enable	Enable	Enable
Rinse cycles	0	1	1
Enter Head Manually	No	Yes	Yes
Retry	1	1	1
Program mode	Extended	Basic	Basic
Load program	None	N/A	N/A
Save program as	None	N/A	N/A
Take sample at start time	No	N/A	N/A
Take sample at time switch	No	N/A	N/A
Enter intervals in minutes	1 minute	N/A	N/A
Calibrate sampler	Disable	Enable	Enable
Sampling stop/resume	Disable	N/A	N/A
Start time delay	0 minutes	0 minutes	0 minutes
Master slave	No	No	No
Sample upon Disable	No	No	No
Sample upon enable	No	Yes	Yes
Reset sample interval	Yes	Yes	No
Inhibit countdown	Yes	Yes	No
Event marker	Pulse	Pulse	Pulse
At the beginning of:	Purge	Purge	Purge
Purge counts presample counts	150	100	100
Post sample counts	394	1000	1000
Pump counts	[500,000]	[500,000]	[500,000]
Reset pump counter	No	No	No
Pump counts to warning	500,000	500,000	500,000
Program lock	Disable	Disable	Disable
Sampler ID number is:	[leave blank]	[leave blank]	[leave blank]
Run diagnostics	Yes	Yes	Yes
Test distributor	Yes	Yes	Yes
Re-initialize	No	No	No

ATTACHMENT 5 – ISCO 3700 PROGRAM SEQUENCE

Parameter	Storm sampling with multiplex, timed delay
[Switch on liquid actuator]	Set to "Latch"
Paced sampling	Storm
Time Mode 1st Bottle Group	X-minute delay
Timed Sample Event	1
Bottle per sample event	11 or 23
Sample volume	950 ml
Bottles available	1
2nd bottle group	Time
2nd group samples	1-minute delay
Sample interval	1 minute
Bottles per sampling event	1
Sample per bottle	1
Sample volume	950 ml
Enter start time	No

[Programming complete]

Parameter	Time sampling with multiplex
[Switch on liquid actuator]	Set to "Latch"
Time/Flow	Time
Min/Hr	1 min
Multiplex samples	Yes
Bottles/sample or Samples/Bottle	Bottles/ sample
Number of bottles	12 or 24
Sample volume	1000 ml
Suction head	XX Ft
Calibrate sample vol	No
Enter start time	No

[Programming complete]

Avalanche Program Sequence, cont.

Parameter	Time sampling, single bottle composite sample	Time sampling, 1-part program	Time sampling, 2-part program
Two-Part Program			
Part A	N/A	N/A	Yes
Assign bottle	N/A	N/A	1-X of 4 or 14
Pacing	N/A	N/A	Uniform time paced
Time between samples	N/A	N/A	1 minute
Distribution	N/A	N/A	Sequential
Bottles per event	N/A	N/A	1
Switch bottles on	N/A	N/A	Number of samples
Switch bottles every X samples	N/A	N/A	1
Run continuously	N/A	N/A	No
Sample volumes dependent on flow?	N/A	N/A	No
Sample volume	N/A	N/A	Select between 10 ml and full container volume
Enable programmed	N/A	N/A	None
Once enabled, stay enabled	N/A	N/A	Yes
Sample at enable	N/A	N/A	Yes
Sample at disable	N/A	N/A	No
Pauses and resumes	N/A	N/A	0
Part B	N/A	N/A	Yes
Pacing	N/A		Uniform time paced
Time between sample events	N/A	N/A	1 minute
Distribution	N/A	N/A	Sequential
Bottles per event	N/A	N/A	1
Switch bottles on	N/A	N/A	Number of samples
Switch bottles every X samples	N/A	N/A	1
Run continuously	N/A	N/A	No
Sample volumes dependent on flow?	N/A	N/A	No
Sample volume	N/A	N/A	Select between 10 ml and full container volume
Enable programmed	N/A	N/A	No

Avalanche Program Sequence, cont.

Parameter	**Time sampling, single bottle composite sample**	**Time sampling, 1-part program**	**Time sampling, 2-part program**
Once enabled, stay enabled	N/A	N/A	Yes
Sample at disable	N/A	N/A	No
Sample at enable	N/A	N/A	Yes
Once enabled, stay enabled	N/A	N/A	Yes
Pauses and resumes	N/A	N/A	0
Delay to start	N/A	N/A	No
Reset Sampler			
Switch on liquid actuator	Toggle to “Reset” then back to “Latch”	Toggle to “Reset” then back to “Latch”	Toggle to “Reset” then back to “Latch”
Select Program name	Run	Run	Run

ATTACHMENT 6 – LANL MSGP ISCO SAMPLER ACTIVATION FORM 045-3

ENV-QP-045.0

LANL Multi-Sector General Permit
ISCO Sampler Activation Form

Form 045-3 (3/2011)

Outfall: **3-PSP-5 : E121.9-ISCO 12** Project ID: **P-MSGP-830** Work Order ID: **MSGP-12785**

Target Date: **4/11/2011**

Project: MSGP Sampler Activation Q1 2011

Reason: MSGP Sampler Activation 2011 Q1

Date:_____ Time:_____

Name/Z#:_____

Name/Z#:_____

Lead Signature:_____

"I confirm the information as recorded is true, accurate and complete."

Equipment	Manufacturer	Model	Serial No.	Specification	Configuration
Actuator	ISCO	1640		Actuator Height	
ISCO Sampler 12c	Teledyne ISCO	ISCO 3700	198H01553	Bottle Set	12c- 1 1L Poly
ISCO Sampler 12c	Teledyne ISCO	ISCO 3700	198H01553	Program	Time / Multiplex no delay
Pb-Acid Battery				Voltage	> 11.7 V

ISCO Sampler Tasks	Note: If "No" provide correct information or explanation.	
Is the ISCO time delta < 1 min (MST)? If no, record adjustment.	❒Yes ❒No	
Does sampler pass the ISCO diagnostics test?	❒Yes ❒No	
Are electrical connections secure?	❒Yes ❒No	
Record battery voltage(s). Is/are voltage(s) > 11.7 V?	❒Yes ❒No	
Does ISCO display either "Bottle 1 of X afer 1" or "Sampler Inhibited"?	❒Yes ❒No	
Is bottle set described above installed?	❒Yes ❒No	
Is recorded height of actuator above channel bottom correct?	❒Yes ❒No	
If any maintenance completed, check Yes: Describe.	❒Yes ❒No	
If any follow-on maintenance is required, check Yes: Describe.	❒Yes ❒No	
Is sampler ON upon departure?	❒Yes ❒No	

Additional Notes:

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Accepted	Tech QC	RNV-RCRA Review
_____	_____	_____

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ATTACHMENT 7 – ISCO AVALANCHE CONFIGURATION SETTINGS

ISCO Avalanche Configuration Settings

Parameter	**All programs**
Maintenance	
Set Clock	[Set to MST]
Pump Tube Alarm	[1,000,000]
Reset pump counter	No
Run diagnostics	Yes
Re-initialize	No
Software Options	
Liquid detector	Liquid detect on
Target temperature	°C
Measurement interval	1 minute
Dual sampler mode	Off
Bottle full detect	Yes
Event mark	Every sample
Duration	3 second pulse at initial purge
Presample purge counts	100
Post sample counts	Dependent on head
Periodic serial output	No
Interrogator connector power	Alarm dial-outs only
Manual Functions	
Grab Sample	Manual option
Calibrate volume	Manual option
Operate pump	Manual option
Move distributor	Manual option
Other Settings/Misc	
Suction line diameter	3/8 inch
Suction line type	Teflon
Program lock	Disable

ATTACHMENT 8 – ISCO AVALANCHE PROGRAM SEQUENCE

Parameter	Time sampling, single bottle composite sample	Time sampling, 1-part program	Time sampling, 2-part program
Program			
Program mode	Extended	Extended	Extended
Program name	COMPOSITE	1-PART (# bottles)	2-PART (# bottles)
Site description	Station number	Station number	Station number
Units (length)	ft	ft	ft
Units (temperature)	°C	°C	°C
Data storage interval	1 minute	1 minute	1 minute
Number of bottles	1	4 or 14	4 or 14
Bottle volume	10000 ml, 4000 ml	2000 ml, 950 ml	2000 ml, 950 ml
Suction line length	X feet	X feet	X feet
Enter Head Manually	Yes	Yes	Yes
Rinse cycles	1	1	1
Retries	1	1	1
One-Part Program			
Pacing	Uniform time paced	Uniform time paced	N/A
Time between samples	Every one minute	Every one minute	N/A
Composite	1 sample	N/A	N/A
Run continuously	No	N/A	N/A
Take X sample(s)	1	N/A	N/A
Distribution	N/A	Sequential	N/A
Volume	Select between 10 ml and full container volume	Select between 10 ml and full container volume	N/A
Sample volumes dependent on flow	No	No	N/A
Enable programmed	None	None	N/A
Once enabled, stay enabled	Yes	Yes	N/A
Sample at enable	Yes	Yes	N/A
Sample at disable	No	No	N/A
Pauses and resumes	0	0	N/A
Delay to start	No	No	N/A

ATTACHMENT 9 – LANL MSGP ISCO SAMPLER WINTER SHUT-DOWN FORM 045-5

ENV-QP-045.0

LANL Multi-Sector General Permit
ISCO Sampler Winter Shutdown Form

Form 045-5 (3/2011)

Outfall: **3-PSP-5 : E121.9-ISCO 12** Project ID: **P-MSGP-833** Work Order ID: **MSGP-12803**

Target Date: **11/30/2011**

Project: MSGP ISCO Sampler Winter Shutdown

Reason: MSGP Sampler Winter Shutdown 2011

Date:_____ Time:_____

Name/Z#:_____

Name/Z#:_____

Lead Signature:_____

"I confirm the information as recorded is true, accurate and complete."

Verify the equipment list below. Make corrections as required and fill in missing information (e.g., serial numbers).

Equipment	Manufacturer	Model	Serial No.	Specification	Configuration
Actuator	ISCO	1640		Actuator Height	
ISCO Sampler 12c	Teledyne ISCO	ISCO 3700	198H01553	Bottle Set	12c- 1 1L Poly
ISCO Sampler 12c	Teledyne ISCO	ISCO 3700	198H01553	Program	Time / Multiplex no delay
Pb-Acid Battery				Voltage	> 11.7 V

ISCO Sampler Tasks	Note: If "No" provide correct information or explanation.	
Turn ISCO unit "OFF."	❒Yes ❒No	
Place caps securely on bottles in the sample carousel.	❒Yes ❒No	
Verify equipment list above.	❒Yes ❒No	
ISCO 3700 Sampler Units		
Disconnect and remove battery. Transport battery to MSGP stockroom for maintenance and storage.	❒Yes ❒No	
Place battery cables securely inside Greenlee box or ISCO casing.	❒Yes ❒No	
Pull up actuator and tubing and store in Greenlee box or ISCO casing.	❒Yes ❒No	
Avalanche ISCO Sampler Units:		
Disconnect and remove batteries. Transport batteries to MSGP stockroom for maintenance and storage.	❒Yes ❒No	
Place battery cables securely inside Greenlee box or ISCO casing.	❒Yes ❒No	
Pull up actuator and tubing and store inside Greenlee box or ISCO casing.	❒Yes ❒No	
Transport Avalanche sampler to MSGP stockroom for maintenance and storage.	❒Yes ❒No	

Additional Notes:

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Accepted	Tech QC	ENV-RCRA Review
_____	_____	_____

ATTACHMENT 10 – LANL MSGP ISCO SAMPLER DECOMMISSION FORM 045-6

ENV-QP-045.0

LANL Multi-Sector General Permit
ISCO Sampler Decommission Form

Form 045-6 (3/2011)

Outfall: **3-PSP-5 : E121.9-ISCO 12** Project ID: **P-MSGP-834** Work Order ID: **MSGP-12804**

Target Date: 7/27/2011

Project: MSGP Sampler Station Decommission

Reason: MSGP Sampler Decommission

Date:_____ Time:_____

Name/Z#:_____

Name/Z#:_____

Lead Signature:_____

"I confirm the information as recorded is true, accurate and complete."

Verify the equipment list below. Make corrections as required and fill in missing information (e.g., serial numbers).

Equipment	Manufacturer	Model	Serial No.	Specification	Configuration
Actuator	ISCO	1640		Actuator Height	
ISCO Sampler 12c	Teledyne ISCO	ISCO 3700	198H01553	Bottle Set	12c- 1 1L Poly
ISCO Sampler 12c	Teledyne ISCO	ISCO 3700	198H01553	Program	Time / Multiplex no delay
Pb-Acid Battery				Voltage	> 11.7 V

ISCO Sampler Tasks	Note: If "No" provide correct information or explanation.	
Is equipment list above complete and accurate?	❒Yes ❒No	
Turn sampler "OFF." Remove bottles from carousel.	❒Yes ❒No	
Disconnect and remove battery(ies), solar panel, and cables (as applicable).	❒Yes ❒No	
Pull up actuator and tubing. Disconnect from sampler unit.	❒Yes ❒No	
Uninstall Greenlee box, as applicable.	❒Yes ❒No	
Transport all removed equipment to the MSGP stockroom for maintenance and storage.	❒Yes ❒No	

Additional Notes:

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Accepted	Tech QC	ENV-RCRA Review
_____	_____	_____

EPC-CP-QP-048	Revision: 3	
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Environment, Safety, and Health Directorate

Environmental Protection and Compliance–Compliance Programs

Quality Procedure

Processing MSGP Stormwater Samples

Document Owner/Subject Matter Expert:

Name:	Organization:	Signature:	Date:
Holly L. Wheeler	EPC-CP	Signature on File	10-4-17

Derivative Classifier: ☐ **Unclassified or** ☒ **DUSA ENVPRO**

Name:	Organization:	Signature:	Date:
Ellena Martinez	EPC-CP	Signature on File	10-3-17

Approval Signatures:

Subject Matter Expert:	Organization:	Signature:	Date:
Holly L. Wheeler	EPC-CP	Signature on File	10-4-17
Responsible Line Manager:	Organization:	Signature:	Date:
Terrill W. Lemke	EPC-CP Team Leader	Signature on File	10-5-17
Responsible Line Manager:	Organization:	Signature:	Date:
Michael Saladen	EPC-CP Group Leader, Acting	Signature on File	10-5-17

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REVISION HISTORY

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ENV-RCRA-QP-048, Rev. 0	07/2011	New document
ENV-CP-QP-048, Rev. 1	09/2013	Annual Review and Revision, new format, process change, and new organization name.
EPC-CP-QP-048, Rev. 2	06/05/2017	Review and Revision, new format, and new organization name, clarified steps, updated attachments.
EPC-CP-QP-048 R3	10/05/2017	Updated Sample Collection Log instructions, added step describing evidence of flow, and added section for addressing excess stormwater material.

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1.0 INTRODUCTION

Los Alamos National Security, LLC (LANS) through Environmental Protection and Compliance-Compliance Programs (EPC-CP) conducts stormwater monitoring activities required pursuant to the National Pollutant Discharge Elimination System (NPDES), Multi-Sector General Permit (MSGP) at Los Alamos National Laboratory (LANL). The MSGP requires LANL to monitor stormwater runoff from industrial sites relative to potential pollutants.

1.1 Purpose

This procedure describes the process for filtering, preserving and preparing stormwater samples for shipment to an analytical laboratory from monitored outfall locations.

1.2 Scope

This procedure applies to the EPC-CP technical staff and subcontractor personnel (as applicable) who conduct processing and chemical preservation of stormwater samples either in the TA-59-1 Stormwater Laboratory or in the field.

The MSGP Program Lead is the primary person responsible for developing and updating this procedure. EPC-CP personnel will be appointed with responsibility for a subset of sampling stations.

1.3 Applicability

Stormwater samples are collected in the field either with a refrigerated Avalanche® or ISCO 3700 automated sampler, single stage sampler or grab sample. When in-line filtration is not possible, sample filtration along with chemical preservation will be conducted immediately following sample retrieval in the field or in the EPC-CP Stormwater Laboratory (TA-59-01).

Sample collection, submission, and analysis is conducted using EPA and New Mexico Water Quality Control Commission guidelines. Monitoring samples are collected and analyzed according to test procedures approved under Title 40 of the Code of Federal Regulations (40 CFR) Part 136 unless other test procedures have been specified in the MSGP permit. Quantitation limits associated with these test procedures are sufficiently sensitive to meet MSGP permit limits.

2.0 PRECAUTIONS AND LIMITATIONS

Hazards in the work described in this procedure are controlled through site specific Integrated Work Documents (IWDs). The hazard level for the activities in this procedure is **moderate**.

Use only sample containers that are documented to meet or exceed “US EPA Specification and Guidance for Contaminant-Free Sample Container” (Publication 9240.05A, EPA/540/R-93/051, December 1992). Never clean or re-use sample containers. Keep containers in a clean, dry place until a sample is ready for processing and transfer to the appropriate container(s).

3.0 PREREQUISITE ACTIONS

3.1 Planning and Coordination

Promptly schedule and complete all stormwater processing to meet the analytical holding time requirements identified in the MSGP Sampling and Analysis Plan or as requested by the MSGP Program Lead.

The MSGP Data Manager will generate Sample Collection Log/Field Chain of Custody (SCL) form(s) at the beginning of the MSGP monitoring season and/or the beginning of each MSGP monitoring quarter. The MSGP Data Manager will generate Chain of Custody/Analysis Request(s) from the Environmental Information Management (EIM) database as stormwater is collected. If the MSGP Data Manager is not available, forms may be obtained from the Sample Management Office (SMO).

3.2 Tools and Equipment

Ensure the following equipment is available:

- Safety glasses with side shields
- Nitrile gloves
- Lab coat
- Eyewash in Stormwater Lab (or portable eyewash in the field)
- Sample Collection Log/Field Chain of Custody Form
- Chain of Custody/Analysis Request
- Copy of the MSGP Sampling and Analysis Plan
- Sample containers (glass and poly bottles)
- Sample container lids
- Acid and base preservatives
- Clean silicon (e.g. Tygon) tubing
- Portable peristaltic pump (e.g. Geopump or equivalent)
- 0.45 micron and/or 0.10 micron cartridge filters (where applicable)
- Paper Towels
- Coolers with ice, Blue Ice®, or equivalent
- Ball point pen
- Permanent marker
- Chain-of-custody seals/tape
- Copy of this procedure
- Copy of the Integrated Work Documents (IWDs)
- Cell phone (only government cell phones with batteries removed are allowed in secure areas)

4.0 PROCESSING SAMPLES

In this procedure, sample collection bottles are the bottles in which the sample was collected in the field. Sample containers are containers into which the original sample may be transferred (as necessary) during processing and shipped to the analytical laboratory.

4.1 Preparation for Processing Samples

1. Don nitrile gloves, safety glasses with side shields, and lab coat. Long pants are required and no open toed shoes are allowed. Prior to processing samples, confirm eyewash is operational.
2. On the work bench arrange sample collection bottles in order from one MSGP sampling location according to the ISCO carousel number marked on the bottle.

CAUTION

Process only one sample set (i.e., samples listed on one Sample Collection Log/Field Chain of Custody form) at a time to ensure stormwater from different locations is not co-mingled.

3. Cross check the Location ID (e.g. MSGP00201) on the sample bottles with the requested analysis for that location on the SCL form (see example in Attachment 1).
4. Write the following information on the SCL:
    - Sampler Inspection and Sample Retrieval form (QP-047) identification number (e.g. Work Order: MSGP-xxxx)
    - Date and time the sample was collected in the field (e.g., date/time automated sampler filled sample bottles or a grab sample was taken)
    - pH measurement taken at the time the sample was collected in the field (as necessary)
    - Indicate if evidence of flow was recorded by writing “Y” for Yes or “N” for No
    - Indicate if a visual assessment was performed by writing “Y” for Yes or “N” for No
        – Visual Assessment form (QP-064) identification number (e.g., Visual WO#: MSGP-xxxx) if applicable
        – Date and time the visual assessment was performed if applicable
    - Printed name of person collecting the sample
    - Date and time the sample was RETRIEVED
5. Ensure the sample container type and chemical preservation type is correct for the analysis requested on the SCL (e.g., 500 ML POLY, HNO3). Note any deviation from the planned sample container volume or type on the SCL.
6. Indicate if each sample on the SCL was collected by writing Y for Yes or N for No under “Collected Y/N”.

7. Determine which samples require filtration and chemical preservation as requested on the SCL. Refer to Sections 4.2 and 4.3 as needed. Requirements are also identified in the most current revision of the MSGP Sampling and Analysis Plan.
8. Mark on each container lid the 3-digit outfall ID, required analysis, filtration requirement, and preservative requirement."
9. Document any other deviations from "As Planned" conditions in the "As Collected" column on the SCL (e.g., change the Field Matrix code from rain (WT) to snowmelt (WM)).

4.2 Filtering Samples

Filter samples if specified on the SCL or if an in-line filter was not used during sample collection.

1. Don nitrile gloves and safety glasses with side shields. Long pants are required and no open toed shoes are allowed. Prior to filtering samples, confirm eyewash is operational.
2. Ensure the sample container volume and container type (e.g., 1 L GLASS) is correct for the analysis requested on the SCL. Note any deviation from the planned sample container volume or type on the SCL.
3. Select the appropriate sized cartridge filter (e.g., 0.10µm or 0.45µm).
4. Attach an appropriate amount of silicone tubing to both ends of the cartridge filter. Place the filter upstream of the peristaltic pump to prevent over-pressurization. If the sample contains a significant amount of sediment, a pre-filter of the same size or larger micron capacity may be used.
5. For split samples(filtered and unfiltered), turn the sample collection bottle upside down multiple times to ensure all sediment is loose from the bottom of the bottle and move the intake tube up and down through the sample during filtration. A sample collected solely for filtration can be filtered without being homogenized by shaking.
6. Replace the filter if flow diminishes, the pump begins to make a grinding sound, or the tubing is forced off the filter by back pressure.
7. Add a check mark next to the filtered requirement previously marked on the lid to indicate that filtration has been completed.
8. Clean and dry the exterior of sample container and check sample container for leakage and breakage.
9. If no further processing is required (e.g., chemical preservation), apply a chain-of-custody seal/tape around the bottle and lid and sign and date the seal/tape.
10. Remove filter and tubing when filtration of one sample set (location) has been completed. A new filter must be used with each new sample ID.

4.3 Preserving Unfiltered and Filtered Samples

Preservation entails the addition of acid or base to a sample. Acids used include hydrochloric acid (HCl), nitric acid (HNO_3), and sulfuric acid (H_2SO_4). Bases used in preservation include sodium hydroxide (NaOH).

CAUTION

The preservatives are strong acids and bases that can cause severe burns. Extreme care should be taken when using these acids and bases. **Review the appropriate Material Safety Data Sheet or Safety Data Sheet for specific guidelines prior to preserving samples.**

1. Don nitrile gloves, safety glasses with side shields, and a lab coat. Long pants are required and no open toed shoes are allowed. Prior to chemically preserving samples, confirm eyewash is operational.
2. Ensure the sample container volume, type, and preservation type is correct for the analysis requested on the SCL or Sampling and Analysis Plan (e.g., 500 ML POLY, HNO_3). Note any deviation from the planned sample container volume or type on the SCL.
3. Select the pre-measured preservative size that matches the sample container size.

   Note: If you only have one size pre-measured preservative that does not match the sample container size you may need to use more than one. For example, if you have a 1 liter sample container and 500 ml pre-measured preservative vial, you would need to add two preservative vials to the sample container.

   Never "split" a larger volume pre-measured vial to preserve a smaller volume container (e.g., do not pipette from a 1 liter pre-measured preservative vial to preserve a 500 mL sample) as error in measurement precision may lead to a risk of violating Department of Transportation shipping requirements.
4. Add the preservative (acid or base) to the sample and securely affix the lid to the container.
5. Agitate the preserved sample by turning the container upside down two to three times.
6. Add a check mark next to the preservation type previously marked on the lid to indicate that preservation has been completed.
7. Clean and dry the exterior of sample container and check sample container for leakage and breakage.
8. Apply a chain-of-custody seal/tape around the bottle and lid and sign and date the seal/tape.

4.4 Handling Excess Stormwater

All efforts will be made to minimize the amount of stormwater sample brought into the TA-59-1 Stormwater Lab. Field personnel will attempt to retrieve only the volumes needed to fulfill the requested analyses from the current MSGP Sampling and Analysis Plan.

If any excess stormwater sample exists after processing has been completed:

- Ensure the container is labeled with the site of origin, date and time sample was collected, and "Return to Site".
- Place the container in the designated storage location in the MSGP Stormwater Lab,
- Return the sample to the site of origin as soon as possible and discharge at the sampler location.

If the excess stormwater has been altered (e.g. tap water or preservative added) contact the Waste Management Coordinator for TA-59-1 for further instruction.

4.5 Submit Samples for Shipping to Offsite Analytical Laboratory

1. Deliver completed SCL(s) to the MSGP Data Manager.
2. The MSGP Data Manager will process the sample information in the EIM system, capturing any documented deviations from planned conditions (as noted on the SCLs), and generate Chain of Custody/Analysis Request (COC) form(s) and sample container labels to reflect the "as collected" samples (see examples in Attachments 2 and 3).
3. In the "Received By" section of the SCL, enter the COC number (e.g., 2017-XXXX).
4. Don nitrile gloves and safety glasses.
5. Ensure the sample containers are securely sealed and wiped dry.
6. Cross check that the Sample ID on the SCL matches the Field Sample ID on the COC.
7. Carefully compare the information from the SCL and lid of each container to apply the correct labels to the sample containers.
8. Place the sample(s) in the cooler with sufficient Blue Ice® (or equivalent) to maintain the required preservation temperature (≤4° C). Cushioning material (e.g., bubble wrap) may be used to separate containers to avoid breakage during transport.
9. Place the SCL(s) and COC(s) in a zip lock type bag, seal, and place in the cooler with samples.
10. Transport samples to the Sample Management Office (SMO) using a government vehicle or approved subcontractor vehicle only. Samples may be delivered during SMO business hours, but must be delivered by 2pm for same day shipping. Coordinate with the SMO for delivery during other times or for delivery of samples that have limited holding times.

    Note: If submitting samples to the SMO will be delayed, place sample containers with SCL(s) in the Stormwater Laboratory refrigerator and ensure the refrigerator is locked.
11. On the COC, the person submitting the sample(s) will print and sign their name, date, and record the time under "Relinquished By." The SMO personnel accepts the sample(s) by printing and signing their name, dating, and recording the time under "Received By."
12. Retain a copy of the signed Chain of Custody/Analysis Request.

13. On the SCL, the person submitting the sample(s) will enter the data and time under "Relinquished By" that matches the data and time "Relinquished by" on the COC and write the COC/Lab Request# (e.g., 2017-xxxx) under “Received by.”
14. Ensure the SMO makes a copy of the SCL(s) to accompany the COC and samples. Retain the original SCL(s) for the MSGP program.
15. Deliver the copy of the signed COC and original SCL(s) to the MSGP Data Manager.

5.0 TRAINING

The training method for this procedure is “self-study” (reading). The following personnel require training before implementing this procedure:

- EPC-CP technical staff and subcontract or other personnel who process stormwater samples for the MSGP.

Personnel performing this procedure will be familiar with the most current versions of the following procedures and operation manuals:

- EPC-CP MSGP Sampling and Analysis Plan for the current monitoring year
- EPC-CP-QP-047 Inspecting Stormwater Runoff Samplers and Retrieving Samples for the MSGP

6.0 RECORDS

Records generated by this document will be submitted to the ADESH Records Management designated point of contact or document manager in accordance with P1020-1, *Laboratory Records Management* and with ADESH-AP-006, *Records Management Plan*. Below is a list of records generated as a result of implementing this procedure.

- Sample Collection Log/Field Chain of Custody Form
- Copy of the Chain of Custody/Analysis Request
- Copy of log book entry(s) (if a log book is used)
- Other pertinent field or lab notes

7.0 DEFINITIONS AND ACRONYMS

7.1 Definitions

See LANL *Definition of Terms*.

7.2 Acronyms

See LANL *Acronym Master List*.

40 CFR	Title 40 of the Code of Federal Regulations
COC	Chain of Custody/Analysis Request
EIM	Environmental Information Management
EPC-CP	Environmental Protection and Compliance – Compliance Programs
IWD	Integrated Work Document
LANL	Los Alamos National Laboratory
LANS	Los Alamos National Security, LLC
MSGP	Multi-Sector General Permit
NPDES	National Pollutant Discharge Elimination System
SCL	Sample Collection Log/Field Chain of Custody
SMO	Sample Management Office

8.0 REFERENCES

None

9.0 ATTACHMENTS

Attachment 1: Sample Collection Log/Field Chain of Custody Example
Attachment 2: Sample Container Labels Example
Attachment 3: Chain of Custody/Analysis Request Example

ATTACHMENT 1: SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY EXAMPLE

Los Alamos National Laboratory

MSGP Quarter 3

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 11198 **EVENT NAME:** MSGP 2017

SAMPLE ID: MSGP-17-131989 **WORK ORDER:** MSGP-59823

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYY):		4/01/17	FIELD MATRIX:	WT	
TIME COLLECTED (HH:MM):		16:03	MEDIA:		
PRS ID:		1	SAMPLE TECH CODE:	APS	
LOCATION ID:	MSGP05301		FIELD PREP:	UF	
LOCATION TYPE:			FIELD QC TYPE:	REG	
TOP DEPTH:			SAMPLE USAGE:	COMP	
BOTTOM DEPTH:			EXCAVATED:		YES / NO / (NA)

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
	MSGP-CN(TOTAL)	500 ML POLY	1	NAOH	Y	
	MSGP-COD+NH3	500 ML POLY	1	H2SO4 ICE	Y	
	MSGP-Mg+Se+Hg	500 ML POLY	1	HNO3 ICE	Y	

SAMPLE COMMENTS:

LOCATION COMMENTS:

FIELD PARAMETERS: Visual WO# MSGP-58866

pH 6.7 Flow (Evidence) Y Visual Inspection Y SU Visual performed Date/Time 4/3/17 14:36

COLLECTED BY (PRINT): Jane Doe Retrieved 4/3/17 14:36

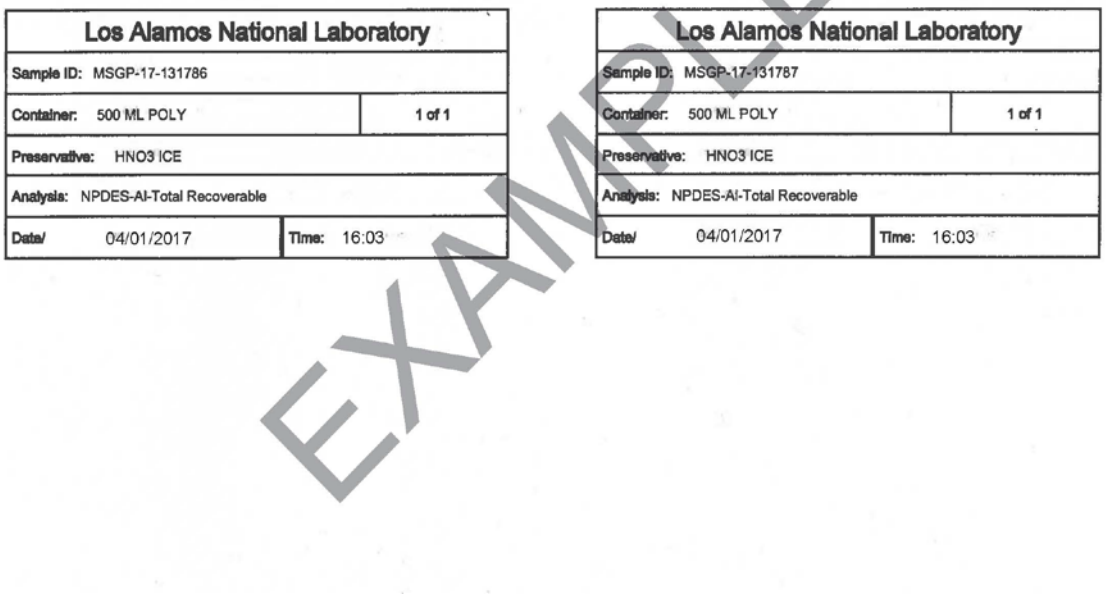
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time
		See COC 2017-1326	4/12/17 15:10
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

Report Date: 07/21/2017

EXAMPLE

ATTACHMENT 2: SAMPLE CONTAINER LABELS EXAMPLE

Page 1 of 1



Los Alamos National Laboratory	
Sample ID: MSGP-17-131786	
Container: 500 ML POLY	1 of 1
Preservative: HNO3 ICE	
Analysis: NPDES-Al-Total Recoverable	
Date/ 04/01/2017	Time: 16:03

Los Alamos National Laboratory	
Sample ID: MSGP-17-131787	
Container: 500 ML POLY	1 of 1
Preservative: HNO3 ICE	
Analysis: NPDES-Al-Total Recoverable	
Date/ 04/01/2017	Time: 16:03

EXAMPLE

ATTACHMENT 3: CHAIN OF CUSTODY/ANALYSIS REQUEST EXAMPLE

Page 1 of 1

LANL SMO

Los Alamos NM

Chain of Custody/Analysis Request

COC/Lab Request #: 2017-1326

Page 1 of 1

EXAMPLE

Client Contact:	Lab Agreement #:	Site Name: Los Alamos National Laboratory	Rad Screening Info:
	Project Number:		
	Analysis Turnaround Time: 24 Hour - ☐ Other - ☐; 7 Days - ☐; 14 Days - ☐; 21 Days - ☐; 28 Days - ☒		Lab Reporting Limit Type: Method Detection Limit

Field Sample ID	Sample Date	Sample Time	Sample Matrix	MSGP-Zn
MSGP-17-131904	Apr 1 2017	16:03	W	1
MSGP-17-132187	Apr 1 2017	16:03	W	1

Special Instructions:

Relinquished by:	Print Name:	Date/Time:	Received by:	Print Name:	Date/Time:
Jane Doe	Jane Doe	4/12/17 1510	[signature]	B Green	4/12/17 3:10

EPC-CP-QP-047	Revision: 2	Los Alamos NATIONAL LABORATORY EST. 1943
Effective Date: 09/06/2017	Next Review Date: 09/06/2020	

Environment, Safety, and Health Directorate

Environmental Protection and Compliance Division – Compliance Programs

Quality Procedure

Inspecting Stormwater Runoff Samplers and Retrieving Samples for the MSGP

Document Owner/Subject Matter Expert:

Name:	Organization:	Signature:	Date:
Holly L. Wheeler	EPC-CP	Signature on File	9-5-17

Derivative Classifier: ☐ **Unclassified or** ☒ **DUSA ENVPRO**

Name:	Organization:	Signature:	Date:
Ellena I. Martinez	EPC-CP	Signature on File	8-22-17

Approval Signatures:

Subject Matter Expert:	Organization:	Signature:	Date:
Holly L. Wheeler	EPC-CP	Signature on File	9-5-17
Responsible Line Manager:	Organization:	Signature:	Date:
Terrill W. Lemke	EPC-CP Team Leader	Signature on File	9-5-17
Responsible Line Manager:	Organization:	Signature:	Date:
Anthony R. Grieggs	EPC-CP Group Leader	Signature on File	9-6-17

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REVISION HISTORY

Document Number and Revision *[Include revision number, beginning with Revision 0]*	**Effective Date** *[Document Control Coordinator inserts effective date]*	**Description of Changes** *[List specific changes made since the previous revision]*
ENV-RCRA-QP-047, Rev. 0	03/11	New Document.
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EPC-CP-QP-047, Rev. 2	09/06//2017	Review and revision. Updated document to new template and new group name. Clarified steps, modified inspection form EPC-CP-Form-1010, and added crosswalk to electronic form in MC Express. This document replaces ENV-RCRA-QP-047 R1.

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1.0 INTRODUCTION

Los Alamos National Security, LLC (LANS) through Environmental Protection and Compliance-Compliance Programs (EPC-CP) conducts stormwater monitoring activities required pursuant to the National Pollutant Discharge Elimination System (NPDES), Multi-Sector General Permit (MSGP) at Los Alamos National Laboratory (LANL). The MSGP requires LANL to monitor stormwater runoff from industrial sites relative to potential pollutants.

1.1 Purpose

This procedure describes the process for inspecting ISCO stormwater samplers and retrieving stormwater runoff samples from monitored outfall locations where LANS conducts stormwater monitoring activities pursuant to the NPDES, MSGP at LANL.

Inspections and sample retrieval conducted under this procedure should be documented using the Maintenance Connection Express™ (MC Express) web application on a tablet or notebook style computer. (In the event of electronic hardware or web application failure, personnel may use a printed hard copy to conduct inspection and sample retrieval.)

1.2 Scope

This procedure applies to the EPC-CP technical staff and subcontractor personnel (as applicable) conducting activities at automated stormwater sampling stations used for monitoring industrial stormwater discharge under the MSGP.

The MSGP Program Lead is the primary person with responsibility for the steps in this procedure. EPC-CP personnel will be appointed with responsibility for a subset of sampling stations.

1.3 Applicability

Stormwater runoff samples are collected at MSGP Program stations either with a refrigerated Avalanche® or ISCO 3700 automated sampler, single stage sampler or grab sample. ISCOs are designed to automatically collect water when the water surface is high enough to trigger a liquid level actuator and fill the sample bottles. Field personnel are required to inspect the sampling station while retrieving water samples during MSGP stormwater monitoring periods and at other intervals determined by the program or as directed by program personnel.

2.0 PRECAUTIONS AND LIMITATIONS

Hazards in the work described in this procedure are controlled thorough site specific Integrated Work Documents (IWDs). The hazard level of the activities in this procedure is **moderate**.

Personnel performing steps in this procedure that involve electrical equipment **MUST** be trained to LANL electrical safety standards as prescribed in the IWD before performing those steps.

Inspections may be discontinued during periods or conditions that make sites dangerous for worker safety or prevent personnel from safely accessing sites (e.g., weather-related events such as flash

floods, flooding, lightning, wildfires, hail, icy roads, deep snow, or LANL operations such as firing shots or burns).

Some terminology varies between the MC Express software and the Maintenance Connection desktop software.

- The "Reading" field in MC Express is the same field as "Reading Final" in Maintenance Connection desktop and "Meas." on a hard copy (printed) work order.
- The "Complete" option in MC Express is the same as a "Yes" answer; the "Failed" option in MC Express is the same as a "No" answer. Maintenance Connection desktop and hard copy (printed) work orders use "Yes" and "No" terminology.

3.0 PREREQUISITE ACTIONS

3.1 Planning and Coordination

1. Schedule work to be completed by the target date appearing on the work order(s) or as requested by the MSGP Program Lead if a form is not issued.
2. Inform (e.g., by e-mail) Facility contacts, as specified in the IWD, of the schedule for sampler inspection work and locations up to a week (preferred) before but no later than the day before (for minor changes) to be added to the appropriate plan of the day.

   Note: For some Facility Operations Divisions (FODs) like the Utilities and Institutional Facilities FOD, MSGP stormwater monitoring activities are on a standing plan of the day. However, this must be requested each year at the beginning of the monitoring season.
3. The IWD Part II (2101 Form) addresses specific requirements and training for FODs.
4. Obtain any necessary additional paperwork before conducting this work, including IWD's, and excavation permits (as necessary).
5. Gather the required equipment (see section below) for the work to be done.
6. Using the Safari web browser on a tablet or notebook style computer, navigate to http://express.maintenanceconnection.com and select English from the available dropdown menu.
7. Log into the MC Express application using your login credentials.
8. Confirm that the work order list displayed in the "My Open Work Orders" section matches your sites (see example in Attachment 1). If work orders are not displayed, click the "Refresh" bar at the bottom of the page. The page will refresh and any work orders issued since you logged in will be loaded to the application. If the work order lists still do not match, contact the MSGP Data Management Team for clarification.
9. Ensure that field personnel have access to accurate time measurement at the Site. When at the site, the clock time on the ISCO sampler must be set to Mountain Standard Time at all times, with no daylight saving time adjustment.

3.2 Tools and Equipment

Ensure the following equipment is available in the field vehicle:

- Safety glasses with side shields
- Sturdy hiking boots or steel toed shoes with soles that grip
- Nitrile gloves
- Cell phone (only government cell phones with batteries removed are allowed in secure areas)
- Copy of this procedure
- Copy of the Integrated Work Documents (IWDs)
- Copy of the MSGP Sampling and Analysis Plan
- Site Map(s) (as needed)
- Current electronic or paper inspection form EPC-CP-Form-1010, MSGP ISCO Sampler Inspection and Sample Retrieval
- Sample Collection Log/Field Chain of Custody (see EPC-CP-QP-048)
- Government issued iPad equipment with Safari web browser and Good™ app.
- Necessary access and station keys
- Charged spare battery(s)
- Battery voltage tester
- Clean spare tubing (pump, suction, discharge types, sampler specific)
- Certified clean replacement sample bottles (glass and poly)
- Spare/replacement sampler parts (liquid level actuator, distributor arm)
- Shovel
- Wooden stakes
- Plastic wire “zip” ties
- Coolers with ice or Blue Ice®
- Paper Towels
- Marker pen (permanent, waterproof)
- Ball point pen
- Zip lock bags
- Chain of custody seals

- 0.45 micron filter (where applicable)

4.0 INSPECTING STORMWATER SAMPLERS AND RETRIEVING SAMPLES

Throughout this procedure the field inspector should document comments and notations in the "Reading" field of the associated task line. Any additional comments not documented in a "Reading" field can be entered in in the "Comments" field of the same task line. If the inspector needs more space additional comments can be entered in the "Labor Report Update" field (see Section 4.3) when the work order is updated to "Complete" status.

4.1 Inspecting the Sampler

1. If conditions prevent a sampler inspection, document the conditions in the "Labor Report Update" field on the work order and notify the Program Lead or designee within 24 hours. Multiple attempts can be documented on the original inspection work order. If the target date cannot be met, the inspector must contact the MSGP Program Lead no less than 24 hours before target date for guidance.
2. In MC Express open the work order issued for the current location by clicking on the appropriate line. If needed, use the expand arrow located on the right side of the display to expand the work order detail information. The work order will open in the display to the work order Summary page.
3. Click on the "Tasks" bar to navigate to the work order Tasks page.
4. Remove the top cover from the sampler.

4.1.1 On Arrival

5. Item 1: Verify and document the sampler is ON and its condition upon arrival by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes" (see example in Attachment 1). Explain any non-functional status (remember to use the "Reading" field unless more space is needed for comments). A hard copy inspection example is provided in Attachment 2 as a crosswalk to the electronic format.

   If a sampler has been inactivated (e.g., sample collection completed) prior to this inspection but continues to appear on the inspection form, change the "N/A" line to "Yes". Subsequent questions regarding this sampler may be left unanswered in this section.

CAUTION

Click the "Save" bar after all entries for a task line have been completed and before proceeding to the next question. Failure to "Save" results in lost data entries.

6. Item 2: Verify and document the ISCO programming displays the following by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes".

ISCO 3700 sampler display should indicate "Sampler Inhibited"

OR

Avalanche sampler display should indicate "Program Disabled"

If the display does not indicate these messages, describe the messages (e.g., "Done X samples", "sampler off", etc.). If there is no indication of flow and the sampler triggered due to a non-flow event (e.g., animal, tumbleweed, etc.), describe this. Document any messages from the ISCO display.

7. Item 3: Verify and document the sampler is set to the correct Mountain Standard Time +/- no more than 1 minute by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". If the sampler is set incorrectly, reprogram for the correct Mountain Standard Time. Describe the work performed and correction applied (e.g., "ISCO clock was X minutes slow").
8. If the location has more than one sampler complete Steps 5 through 7 for each sampler.
9. Don nitrile gloves and safety glasses.
10. Remove the center section from the sampler.

4.1.2 Water Collection Information

11. Item 4: Document any evidence of storm water flow at the sampling location by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". Describe the evidence of flow (e.g. sediment or vegetation movement, erosion, standing water).
    - If the sampler did not trip but there is evidence of flow, document the date and time storm water discharge began from the precipitation report.
    - If the sampler tripped or collected storm water, document the date/time stamp from the sampler if available or from the precipitation report.
12. Item 5: Document if any storm water was collected (from either a sampler or by grab sample) by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". If any water was collected, complete the Bottle Information section (Item 20). Document if the water is taken by grab sample. Follow the steps in Section 4.2 of this procedure to retrieve samples.
13. Item 6: For Avalanche samplers only, verify and document the current refrigerator temperature of the sampler if water was collected by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". Record the temperature. If unable to review temperature, check "No" and describe the condition (e.g. dead battery, electrical short).

    If no water was collected the field inspector may change the "N/A" line to "Yes".

14. Item 7: For Avalanche samplers equipped with an ISCO pH and Temp Module, verify and document a pH measurement was taken on the collected water by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". Record the pH measurement taken at the time of Bottle 1 as "Average: Minimum:Maximum." If unable to review pH, check "No" and describe the condition (e.g. damaged meter).

    If no water was collected the field inspector may change the "N/A" line to "Yes".

4.1.3 Water Retrieval Information

15. Item 8: Verify and document whether a sample volume was retrieved (from either a sampler or by grab sample) and taken off site by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". If sample volume was retrieved, record the total volume **taken off site**.

16. Item 9: Verify and document whether a visual assessment of the water was performed by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". The MSGP program visual assessment form is not included in this procedure (see EPC-CP-QP-064). Ensure this form is submitted with the sampler inspection form. If the sample was filtered, conduct the visual assessment and document "Filtered sample."

4.1.4 On Departure

17. Item 10: Verify all cable and electrical connections are attached and firmly tightened (not loose) upon departure from the site by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes".

    Connections may work loose over time due to temperature changes and if there are dis-similar metals at the connection points. The loose connections can introduce voltage spikes which inherently cause current spikes that may result in blown fuses.

    If the cables require replacement, connections require tightening, or other maintenance performed, describe the work performed (e.g., "tightened connectors on battery).

    If maintenance cannot be completed at the time of inspection, then describe the condition (e.g. cables chewed through by animal) and follow-up work needed (e.g., replace cables).

18. Item 11: Verify and document power supply function. Use a voltage meter to check the voltage of the battery(s) and record the voltage(s). Change the "Complete" or "Failed" line to "Yes" to indicate if battery voltage is acceptable upon departure from the station (≥11.7 for non-floating charged batteries at ISCO 3700 samplers and ≥11.0 for floating-charged batteries at Avalanche samplers).

    Check the voltage of the solar panel if access can be gained to the weather protected terminal covers on the back of the panel.

4.1.5 Equipment Specific Tasks

19. Item 12: Verify and document the sampler passes the diagnostic test by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". Directions for running the diagnostics test is provided in ENV-CP-QP-045.

    If a sampler has been inactivated (e.g., sample collection completed) prior to this inspection but continues to appear on the inspection form, change the "N/A" line to "Yes" on this task line. Subsequent questions regarding this sampler may be left unanswered in this section.

Warning

The internal pump tubing must be replaced if the pump tubing life has reached or exceeded the preset pump counts. The internal pump tubing life is set 500,000 pump counts for the 3700 and 1,000,000 for the Avalanche.

Only reset the pump counts after replacing the internal tubing.

    If maintenance is necessary and can be performed at the time of inspection, describe the work performed. If maintenance cannot be completed at the time of inspection, then describe the condition and follow up with a description of work needed.

    If a sampler has been inactivated (e.g., sample collection completed) prior to this inspection but continues to appear on the inspection form, change the "N/A" line to "Yes" on this task line. Subsequent questions regarding this sampler may be left unanswered in this section.

20. Item 13: Verify and document the sample tubing is free or clear of debris by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes".

    Check the physical condition of the sampler including the actuator and intake line for correct location and height in the channel. The actuator, intake line and strainer (if used) should be placed on the cutting side of the channel to help minimize the possibility of sediment burying the intake line/strainer. Adjust as necessary to capture flow within the channel. The actuator, intake line and strainer must be clear of debris (sediment, pine needles, etc.).

    If maintenance (e.g., clearing the tube, reposition tubing intake) is necessary and can be performed at the time of inspection, perform the work and describe. If maintenance cannot be completed at the time of inspection (e.g., can't clear intake tubing and spare intake tubing not on hand to replace) then describe the condition and follow up with description of work needed.

21. Item 14: Verify and document the sample tubing has passed a suction test by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". Check the condition of sample tubing and vent tubing.

    If maintenance (e.g., replace internal pump tubing) is necessary and can be performed at the time of inspection, perform the work and describe. If maintenance (e.g., replace sampler

pump) cannot be completed at the time of inspection then describe the condition and follow up with description of work needed.

22. Item 15: Verify and document the sampler is ON prior to departing the site by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes".

23. Item 16: Verify and document the liquid level actuator has been set to "Latch" prior to departing the site by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". If the sampler tripped and requires reset of the sampling program, reset the actuator by toggling the switch to "Reset" and then back to "Latch".

24. Item 17: Verify and document the ISCO programming displays the following by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes".

    ISCO 3700 sampler display should indicate "Sampler Inhibited"

    OR

    Avalanche sampler display should indicate "Program Disabled"

    If an error occurs, reconfigure the sampler per EPC-CP-QP-045.

25. If the location has more than one sampler complete Steps 19 through 24 for each sampler.

4.1.6 Maintenance Information

26. Item 18: Verify and document any maintenance completed while on site that is not documented elsewhere on work order by changing the "Complete" or "Failed" line to "Yes". Describe the work performed.

    Maintenance items may include (but are not limited to) site clearing, installing new or additional equipment, removing equipment, animal/pest mitigation, problems with equipment location, etc.

    If a battery was replaced record the voltage of the new battery and the battery identification number. If the battery does not have an identification number, contact the MSGP Program Manager to have one assigned. Once assigned, the number must be painted or written in a permanent manner on the battery.

27. Item 19: Verify and document any maintenance needed that could not be completed while on site that is not documented elsewhere on work order by changing the "Complete" or "Failed" line to "Yes". Describe any work needed. Refer to EPC-CP-QP-045 for sampler operation and maintenance.

4.1.7 Bottle Information

28. Item 20: Document water collected by clicking the expand arrow located on the right side of each bottle's task line and change the "Complete" or "Failed" line to 'Yes'. Record the following information for each bottle by position number in the carousel.
    - Date (MM/DD/YY or MM-DD-YY) and time the ISCO collected water.
    - Volume of water in the bottle
    - Type of bottle (e.g. G for glass, P for poly)
    - Specific ISCO displayed message, if present

    If the sampler(s) did not trigger, change the "N/A" line to 'Yes' for Bottle #1 of each sampler and leave the other Bottle task lines unanswered.

    If a sampler has been inactivated (e.g., sample collection completed) prior to this inspection but continues to appear on the inspection form, change the "N/A" line to "Yes" on this task line. Subsequent questions regarding this sampler may be left unanswered in this section.
29. If the location has more than one sampler complete Step 28 for each sampler.
30. Replace and secure the sampler top cover and secure the sampler shelter (if sampler is in a shelter).

4.2 Retrieving Samples

1. Don nitrile gloves and safety glasses.
2. Add up the volume of water collected (see flow chart in Attachment 3) and check that the total volume of water in glass and poly matches the required volume for the specific location identified in the MSGP Sampling and Analysis Plan. The volume of water required to complete analytical may vary by monitored location.
    - If sample volume is sufficient to fulfill all analytical requirements, continue with Step 3.
    - If sample volume is sufficient to fulfill part of the analytical requirements, consult the prioritization order on the MSGP Sampling and Analysis Plan to determine which analytical to fulfill OR contact the MSGP Data Manager, continue with Step 3 but retrieve only the volume needed.
    - If the collected sample will NOT fulfill the minimum required volume for any analytical:
        - Record total volume retrieved as "0" in Item 8
        - Complete a Visual Assessment (see EPC-CP-QP-064)
        - Pour out all water on the ground
        - Skip to Step 10 below

CAUTION

ISCO Avalanche samplers are programmed to cool samples to 4°C. If water is collected and the refrigerator temperature reads higher than 6°C, **do not** retrieve samples that require ICE preservation. Refer to the MSGP Sampling and Analysis Plan for preservation requirements.

3. Remove filled and partially-filled bottles from the carousel.
4. For samples retrieved, immediately place lids onto the sample bottles and securely seal. Place custody seal tape on each bottle.
5. Write the date and time collected, Sampler Location number, and the corresponding carousel number on each retrieved sample bottle. Retrieve the sample collection date and time from the ISCO sampler.
6. Record total volume retrieved in Item 8.
7. Conduct a Visual Assessment (see EPC-CP-QP-064).
8. Place retrieved sample bottles in a cooler with blue ice (or equivalent).
9. Return any excess water or collected volume that exceeded the amount required to the ground at the location collected.
10. Install new certified clean sample bottles in the carousel to replace those bottles that collected stormwater. The number and type of bottles may vary. Ensure bottles match the configuration specified in the MSGP Sampling and Analysis Plan.
11. The 0.45 micron filter may also need to be replaced. Consult the most current revision of the Sampling and Analysis Plan for specifics. If the sampler is turned off for the quarter but new certified clean sample bottles and/or the filter have not been replaced, note this as follow-up maintenance required (see Item 19).
12. Replace and secure the center section of the sampler.
13. Return to steps in Section 4.1.

4.3 Completing the Inspection Form

1. When all task lines have been completed, make sure you have clicked the “Save” bar at the bottom of the page.
2. Click the “Back” arrow button in the upper left hand corner to exit the work order Tasks page and return to the Work Order Summary page.
3. Click the checkered flag in the upper right corner of the work order Summary page.

CAUTION

MC Express automatically changes the work order status to “Closed” and auto-populates the date and time fields.

4. Item 21: Click on the expand arrow located on the right side of the "New Status" field and select "Completed" from the available dropdown menu. Ensure the date and time auto-populated are the date and time the inspection was completed.

   If these fields need to be updated, click the "Date" field to modify it. Make necessary adjustments using the available timestamp application and click "Set" to apply changes.

6. Item 22: The inspector must type in his/her name in the "Labor Report Update" field.

   Any additional notes, observations, or site conditions not documented in a task line "Reading" or "Comments" field can also be documented in the "Labor Report Update" field.

7. Scroll down the page to the "Signature" bar and click the expand arrow on the left side of the bar to open the "Signature" field.

8. Item 23: Capture an electronic signature by drawing with a finger on the tablet screen. The Lead Inspector is certifying that the information submitted is "true, accurate, and complete" by electronically signing the work order.

   Note: If using MC Express on a desktop screen (not a tablet), the mouse must be used to sign electronically.

9. Click on the "Save" bar at the bottom of the page to close the "Signature" field.

10. Click on the "Back" button located in the upper left hand corner to return to the "My Open Work Orders" page.

11. Once you have completed an inspection, click on the Menu button again, and then click the "Logout" bar. Close the browser. All work will automatically uploaded from the MC Express application to the MC database.

    Always log out of MC Express when you have finished work OR if work is interupted.

4.4 REMOVING STORMWATER SAMPLES FROM THE FIELD

1. If samples were collected, deliver the samples and corresponding Sample Collection Log/Field Chain of Custody form to the EPC-CP Stormwater Program Laboratory at TA-59-1.

2. Sign the Sample Collection Log/Field Chain of Custody and place it with the sample(s) in the refrigerator. Ensure custody seal tape is intact on each sample bottle. Lock the refrigerator to prevent tampering. Refer to EPC-CP-QP-048, *Processing MSGP Stormwater Samples* for instruction on processing samples and submitting samples for shipping to an analytical laboratory.

5.0 TRAINING

The following personnel require training before implementing this procedure:

- EPC-CP technical staff and subcontract or other personnel who inspect automated stormwater samplers and retrieve stormwater samples for the MSGP.

For EPC-CP staff the training method for this procedure is "self-study" (reading). Other participating groups may require training documentation pursuant to local procedures.

Personnel performing this procedure will be familiar with the most current versions of the following procedures and operation manuals:

- EPC-CP MSGP Sampling and Analysis Plan for the current monitoring year
- Manual for Teledyne ISCO Sampler Model 3700
- Manual for Teledyne ISCO Avalanche® sampler
- Manual for Teledyne ISCO 701 pH/Temperature module (if equipped at station)

Personnel performing steps in this procedure that involve electrical equipment **MUST** be trained to LANL electrical safety standards as prescribed in the IWD before performing those steps.

6.0 RECORDS

Records generated by this document will be submitted to the EPC-CP Records Management designated point of contact or document manager in accordance with P1020-1, *Laboratory Records Management* and with ADESH-AP-006, *Records Management Plan*.

- Completed ISCO Sampler Inspection and Sample Retrieval form(s)

7.0 DEFINITIONS AND ACRONYMS

7.1 Definitions

See LANL *Definition of Terms*.

7.2 Acronyms

See LANL *Acronym Master List*.

EPC-CP	Environmental Protection and Compliance-Compliance Programs
IWD	Integrated Work Document
LANL	Los Alamos National Laboratory
LANS	Los Alamos National Security, LLC
MC Express	Maintenance Connection MC Express web application
MSGP	Multi-Sector General Permit
NPDES	National Pollutant Discharge Elimination System

8.0 REFERENCES

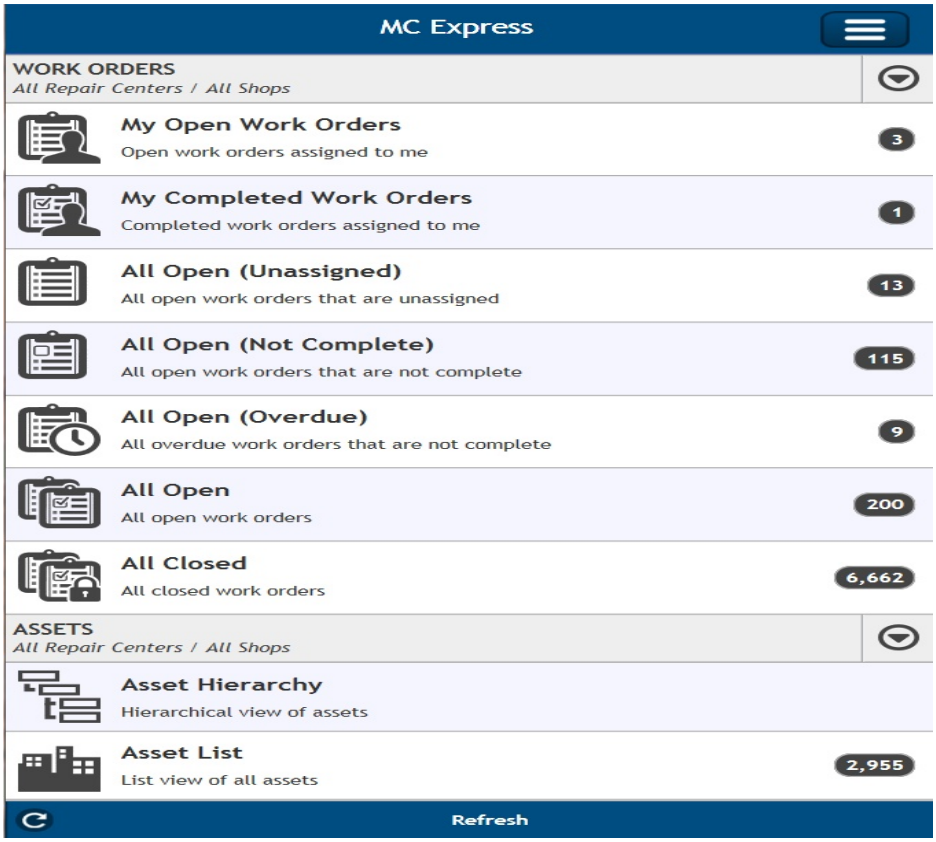
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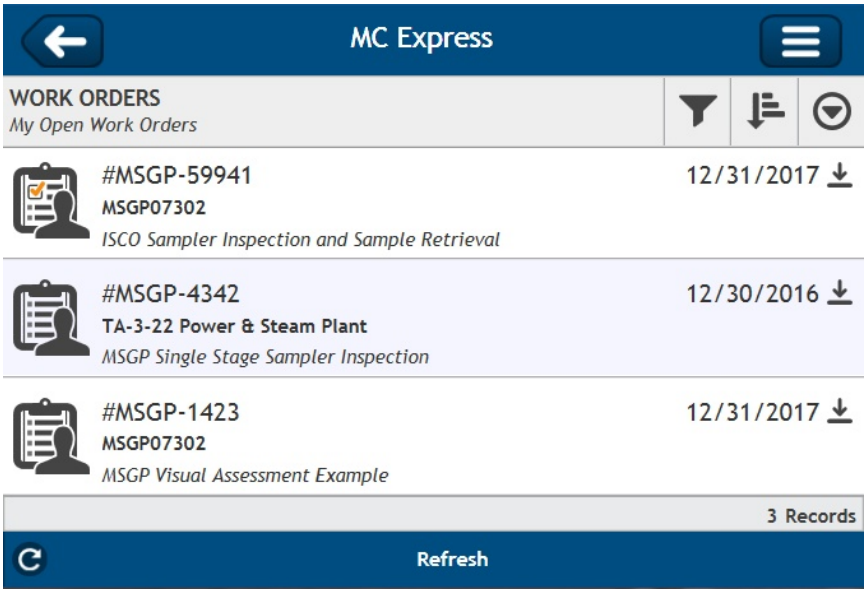
9.0 ATTACHMENTS

Attachment 1: Screenshot Examples of EPC-CP-Form-1010.02 in MC Express
Attachment 2: Crosswalk of EPC-CP-Form-1010.02 Hard Copy Format to Electronic Format Example
Attachment 3: Flow Chart for Sample Retrieval

Attachment 1: Screenshot Examples of EPC-CP-Form-1010.02 in MC Express

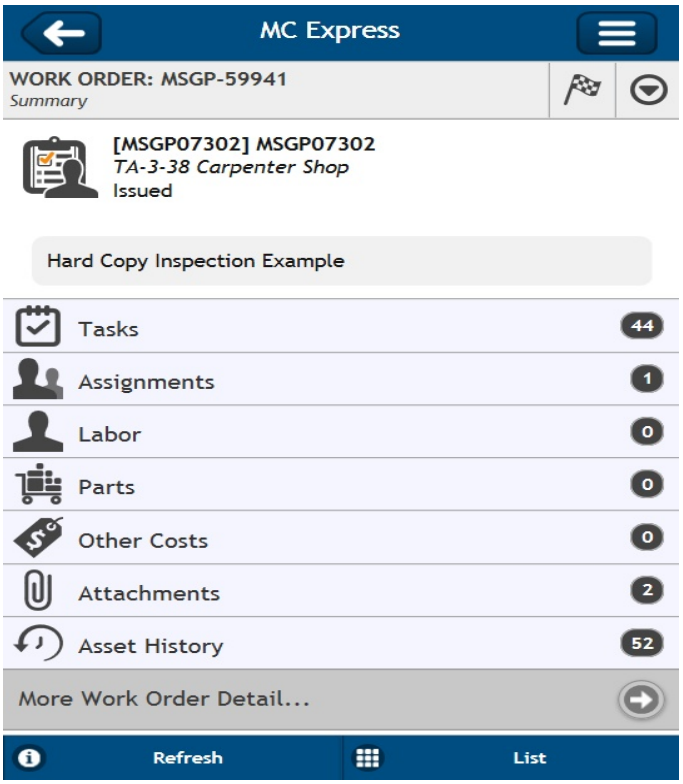
Page 1 of 7

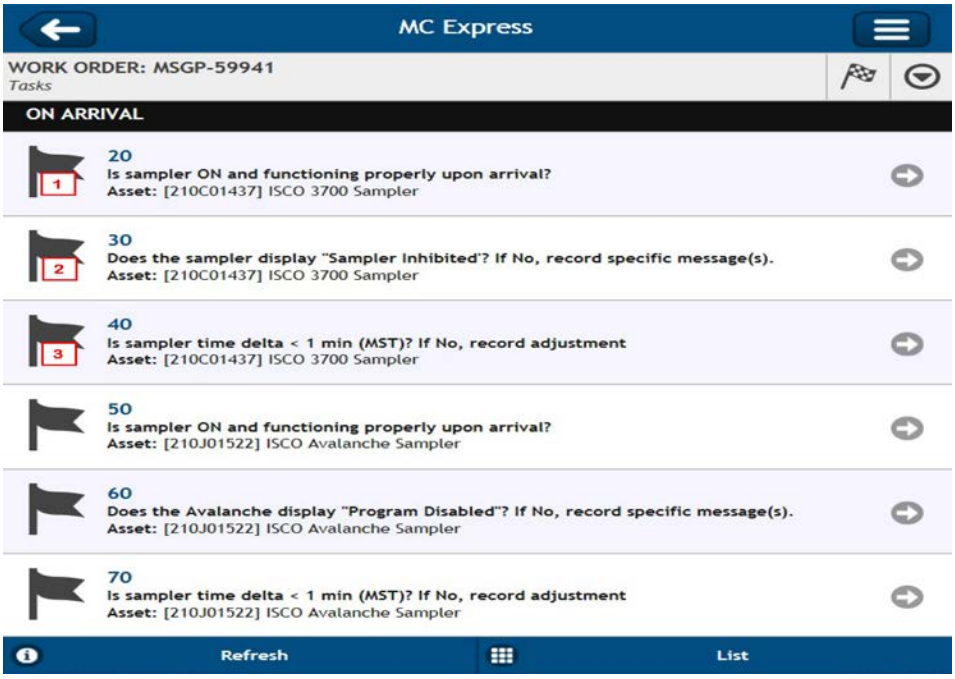




Attachment 1: Screenshot Examples of EPC-CP-Form-1010.02 in MC Express (cont.)

Page 2 of 7

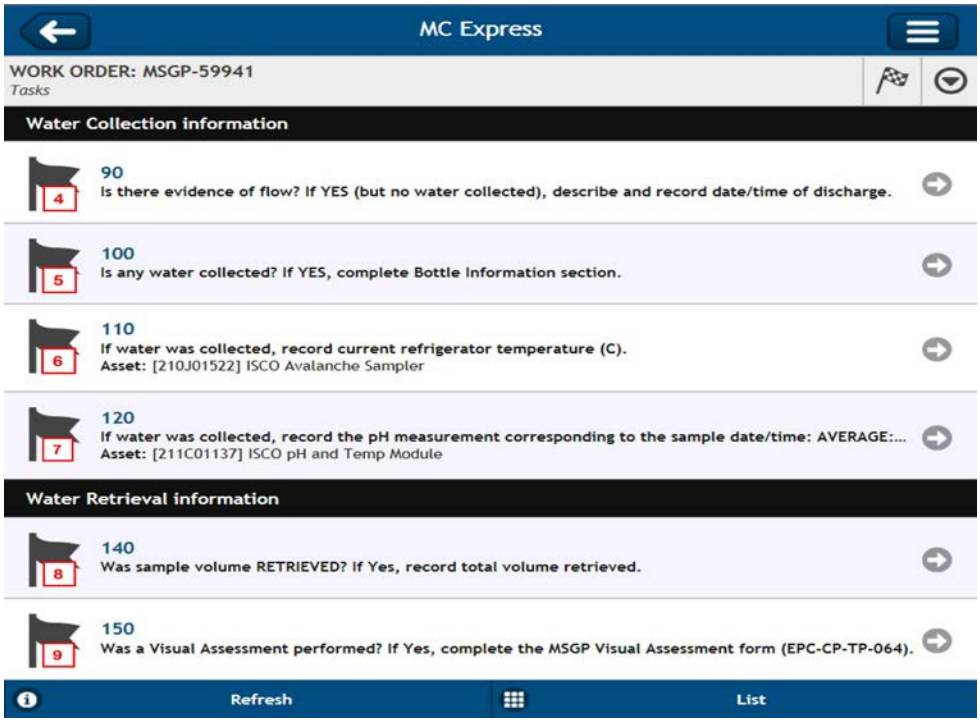




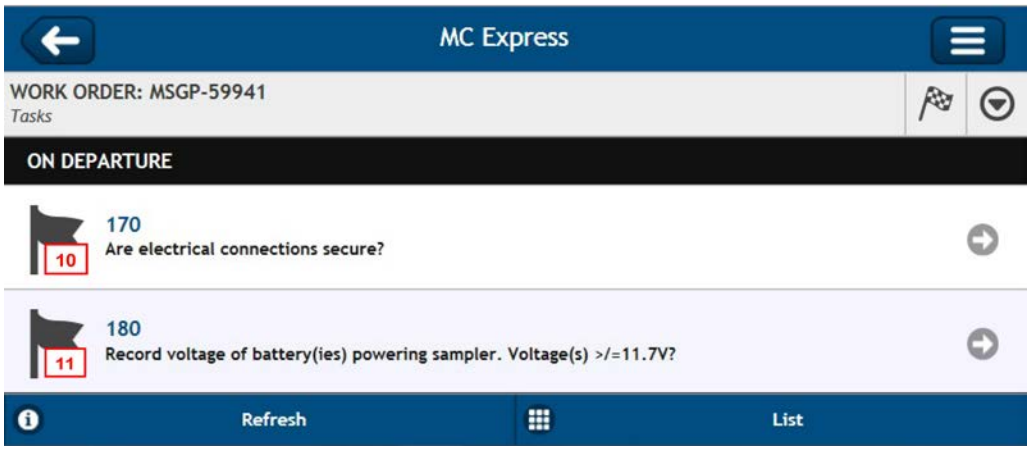
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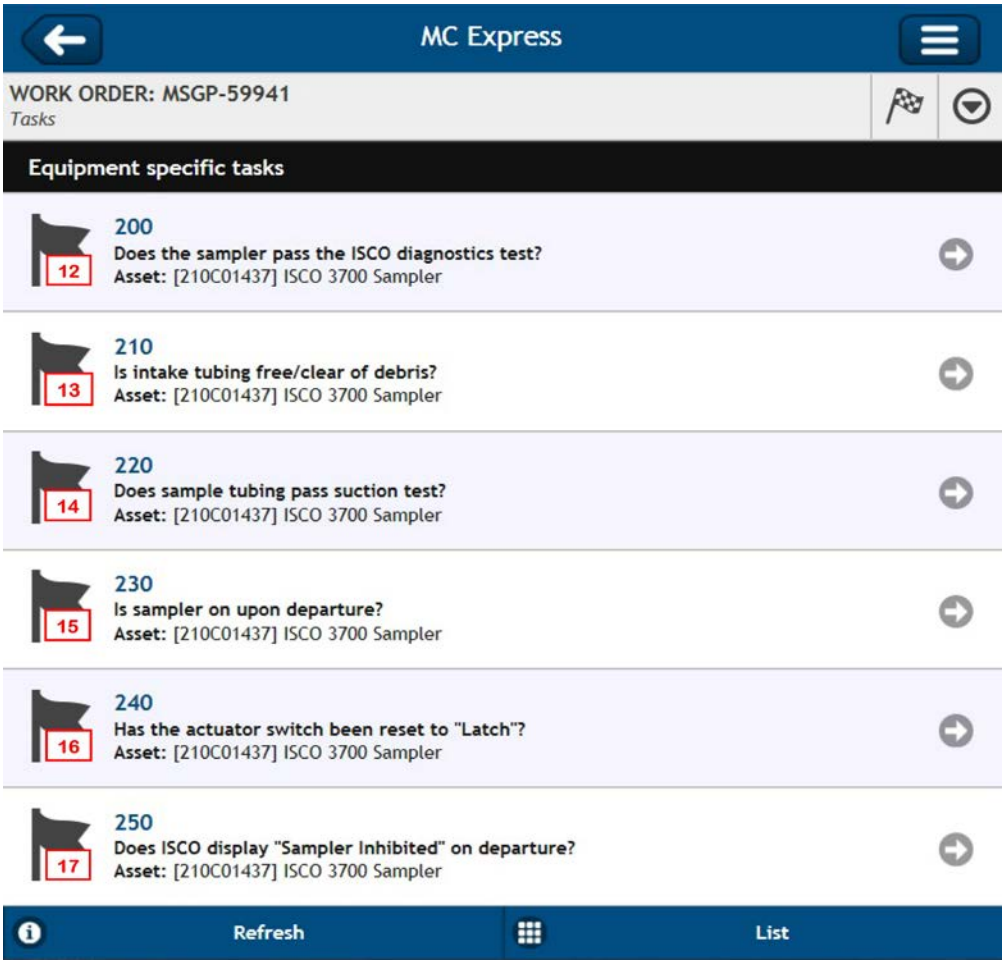
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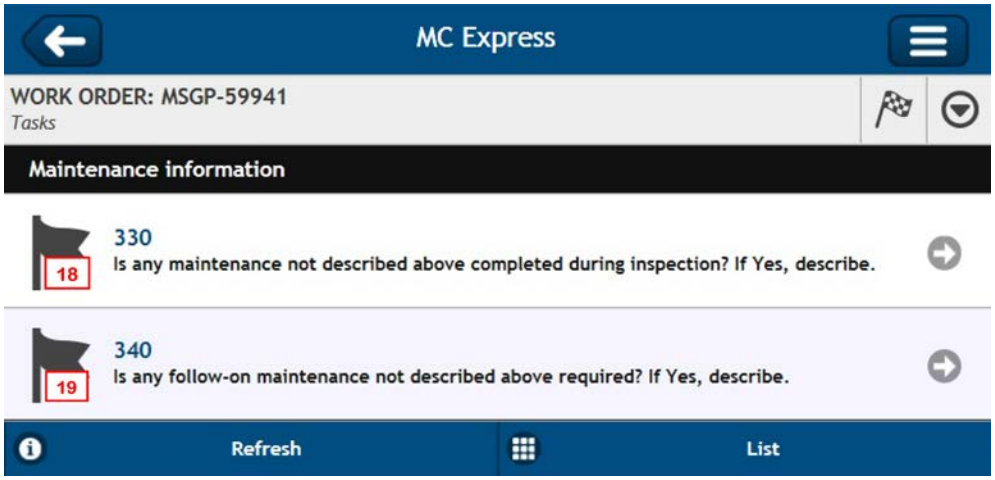


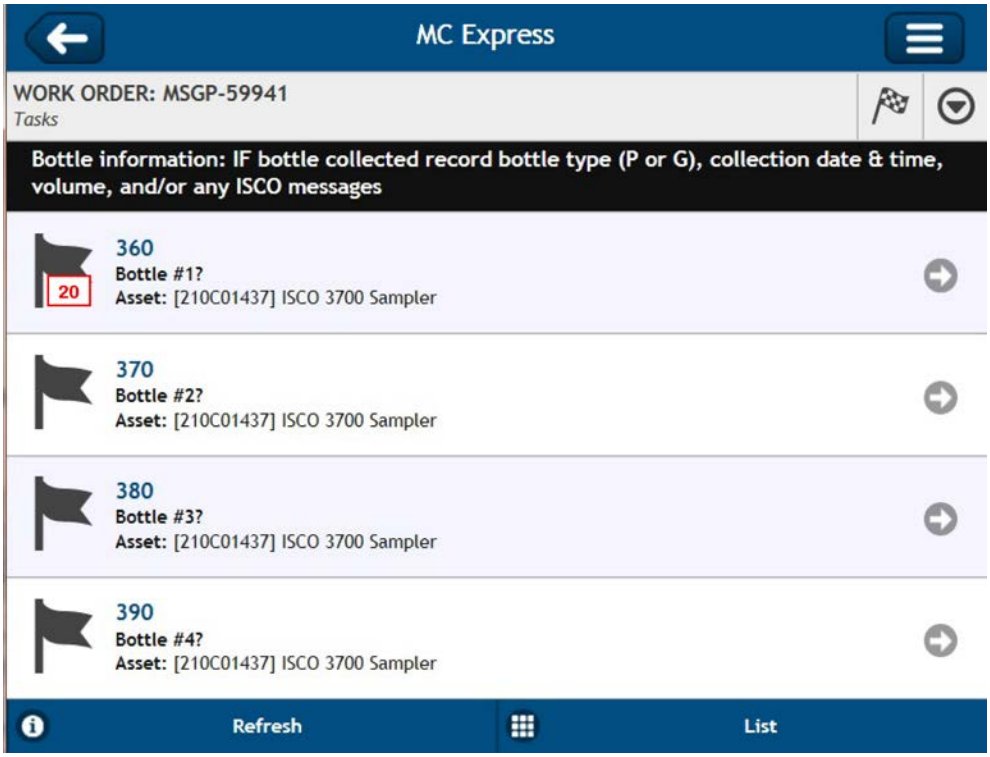
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Attachment 1: Screenshot Examples of EPC-CP-Form-1010.02 in MC Express (cont.)

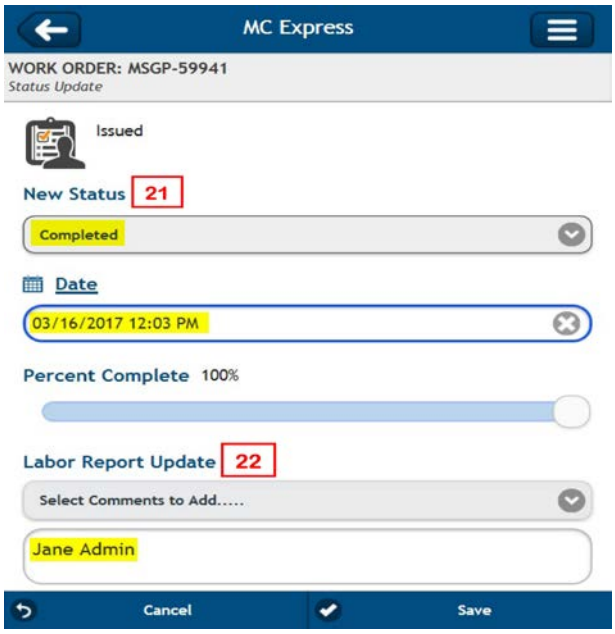




Attachment 1: Screenshot Examples of EPC-CP-Form-1010.02 in MC Express (cont.)

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Attachment 1: Screenshot Examples of EPC-CP-Form-1010.02 in MC Express (cont.)



Attachment 2: Crosswalk of EPC-CP-Form-1010.02 Hard Copy Format to Electronic Format

Los Alamos National Lab - ADESH

Work Order MSGP-59941

MSGP Monitoring Stations
Printed 8/10/2017 - 11:25 AM (Duplicate Copy)

Maintenance Details

Requested By: Admin, Jane on 8/10/2017 11:23:00 AM
Procedure: MSGP ISCO Sampler Inspection and Sample Retrieval (EPC-CP-Form-1010.2 2)
Last PM: 7/20/2017
Project: ISCO Inspections wk 8/7/17 (P-MSGP-5212)

Target: 12/31/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-3-38 Carpenter Shop
Monitored Outfall (073)
MSGP07302

Contact: Admin, Jane
Phone: 123-4567

Reason: Hard Copy ISCO Sampler Inspection and Sample Retrieval

Tasks

	#	Description	Meas.	No	N/A	Yes
		ON ARRIVAL				
1	20	**ISCO 3700 Sampler [210C01437]** Is sampler ON and functioning properly upon arrival?		☐	☐	☐
2	30	**ISCO 3700 Sampler [210C01437]** Does the sampler display "Sampler Inhibited"? If No, record specific message(s).		☐	☐	☐
3	40	**ISCO 3700 Sampler [210C01437]** Is sampler time delta < 1 min (MST)? If No, record adjustment		☐	☐	☐
	50	**ISCO Avalanche Sampler [210J01522]** Is sampler ON and functioning properly upon arrival?		☐	☐	☐
	60	**ISCO Avalanche Sampler [210J01522]** Does the Avalanche display "Program Disabled"? If No, record specific message(s).		☐	☐	☐
	70	**ISCO Avalanche Sampler [210J01522]** Is sampler time delta < 1 min (MST)? If No, record adjustment		☐	☐	☐
		Water Collection information				
4	90	Is there evidence of flow? If YES (but no water collected), describe and record date/time of discharge.		☐	☐	☐
5	100	Is any water collected? If YES, complete Bottle Information section.		☐	☐	☐
6	110	**ISCO Avalanche Sampler [210J01522]** If water was collected, record current refrigerator temperature (C).		☐	☐	☐
7	120	**ISCO pH and Temp Module [211C01137]** If water was collected, record the pH measurement corresponding to the sample date/time: AVERAGE: MINIMUM: MAXIMUM:		☐	☐	☐
		Water Retrieval information				
8	140	Was sample volume RETRIEVED? If Yes, record total volume retrieved.		☐	☐	☐
9	150	Was a Visual Assessment performed? If Yes, complete the MSGP Visual Assessment form (EPC-CP-TP-064).		☐	☐	☐
		ON DEPARTURE				
10	170	Are electrical connections secure?		☐	☐	☐
11	180	Record voltage of battery(ies) powering sampler. Voltage(s) >/=11.7V?		☐	☐	☐
		Equipment specific tasks				
12	200	**ISCO 3700 Sampler [210C01437]** Does the sampler pass the ISCO diagnostics test?		☐	☐	☐
13	210	**ISCO 3700 Sampler [210C01437]** Is intake tubing free/clear of debris?		☐	☐	☐
14	220	**ISCO 3700 Sampler [210C01437]** Does sample tubing pass suction test?		☐	☐	☐
15	230	**ISCO 3700 Sampler [210C01437]** Is sampler on upon departure?		☐	☐	☐
16	240	**ISCO 3700 Sampler [210C01437]** Has the actuator switch been reset to "Latch"?		☐	☐	☐
17	250	**ISCO 3700 Sampler [210C01437]** Does ISCO display "Sampler Inhibited" on departure?		☐	☐	☐

Attachment 2: Crosswalk of EPC-CP-Form-1010.02 Hard Copy Format to Electronic Format (cont.)

Page 2 of 2

260	**ISCO Avalanche Sampler [210J01522]** Does the sampler pass the ISCO diagnostics test?		☐	☐	☐
270	**ISCO Avalanche Sampler [210J01522]** Is intake tubing free/clear of debris?		☐	☐	☐
280	**ISCO Avalanche Sampler [210J01522]** Does sample tubing pass suction test?		☐	☐	☐
290	**ISCO Avalanche Sampler [210J01522]** Is sampler on upon departure?		☐	☐	☐
300	**ISCO Avalanche Sampler [210J01522]** Has the actuator switch been reset to "Latch"?		☐	☐	☐
310	**ISCO Avalanche Sampler [210J01522]** Does Avalanche display "Program Disabled" on departure?		☐	☐	☐
	Maintenance information				
18 330	Is any maintenance not described above completed during inspection? If Yes, describe.		☐	☐	☐
19 340	Is any follow-on maintenance not described above required? If Yes, describe.		☐	☐	☐
	Bottle information: IF bottle collected record bottle type (P or G), collection date & time, volume, and/or any ISCO messages				
20 360	**ISCO 3700 Sampler [210C01437]** Bottle #1?		☐	☐	☐
370	**ISCO 3700 Sampler [210C01437]** Bottle #2?		☐	☐	☐
380	**ISCO 3700 Sampler [210C01437]** Bottle #3?		☐	☐	☐
390	**ISCO 3700 Sampler [210C01437]** Bottle #4?		☐	☐	☐
400	**ISCO 3700 Sampler [210C01437]** Bottle #5?		☐	☐	☐
410	**ISCO 3700 Sampler [210C01437]** Bottle #6?		☐	☐	☐
420	**ISCO 3700 Sampler [210C01437]** Bottle #7?		☐	☐	☐
430	**ISCO 3700 Sampler [210C01437]** Bottle #8?		☐	☐	☐
440	**ISCO 3700 Sampler [210C01437]** Bottle #9?		☐	☐	☐
450	**ISCO 3700 Sampler [210C01437]** Bottle #10?		☐	☐	☐
460	**ISCO 3700 Sampler [210C01437]** Bottle #11?		☐	☐	☐
470	**ISCO 3700 Sampler [210C01437]** Bottle #12?		☐	☐	☐
480	**ISCO Avalanche Sampler [210J01522]** Bottle #1?		☐	☐	☐
490	**ISCO Avalanche Sampler [210J01522]** Bottle #2?		☐	☐	☐
500	**ISCO Avalanche Sampler [210J01522]** Bottle #3?		☐	☐	☐
510	**ISCO Avalanche Sampler [210J01522]** Bottle #4?		☐	☐	☐

Labor Report

Completed: 5/30/2017 4:44:00 PM

Report: Jane Admin

Jane Admin — Signature / Name | 5/30/2017 — Date | Signature / Name | Date

I confirm the information as recorded is true, accurate and complete.

WO ID:_____ Page ___of___

21 Date:_____ Time:_____

22 Name/Z#:_____

Name/Z#:_____

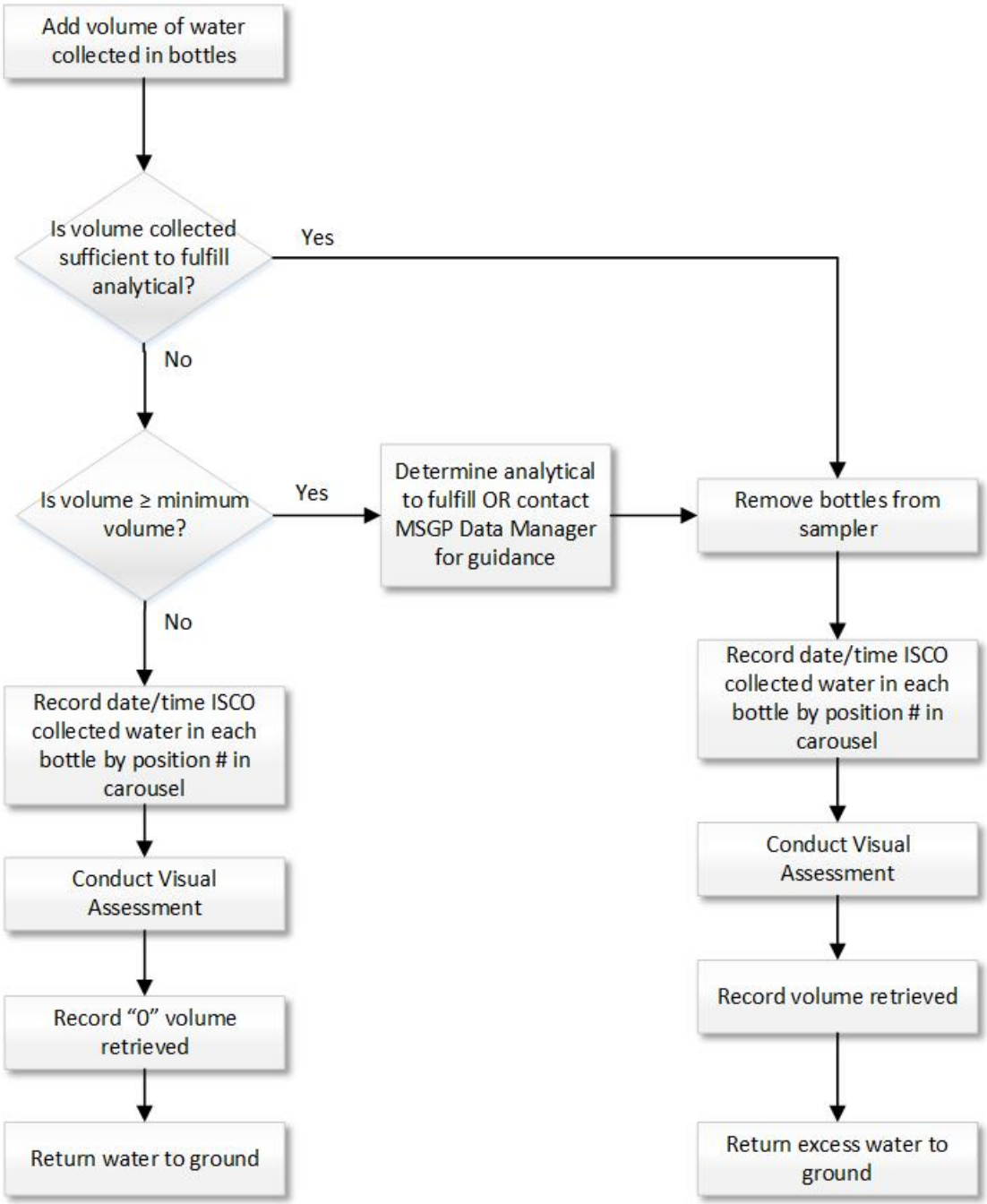
23 Lead Signature:_____

"I confirm the information as recorded is true, accurate and complete."

EPC-CP-Form-1010.02 08/2017

Attachment 3: Flow Chart for Sample Retrieval

Page 1 of 1



ENV-CP-QAPP-MSGP, R5	
Effective Date: 11/04/2013	Next Review Date: 11/04/2015

Environment, Safety, Health Directorate

Environmental Protection Division – Compliance Programs Group

Quality Assurance Project Plan

Stormwater Multi-Sector General Permit for Industrial Activities Program

Reviewers:

Name:	Organization:	Signature:	Date:
Melanie Lamb	ADESH-OIO, QA Specialist	Signature on File	

Derivative Classifier: ☐ **Unclassified** ☒ **DUSA** **ENVPRO**

Name:	Organization:	Signature:	Date:
Ellena Martinez	ADESH-OIO	Signature on File	

Approval Signatures:

Subject Matter Expert:	Organization:	Signature:	Date:
Holly Wheeler	ENV-CP	Signature on File	
Responsible Line Manager:	Organization:	Signature:	Date:
Mike Saladen	ENV-CP, Team Lead	Signature on File	
Responsible Line Manager:	Organization:	Signature:	Date:
Anthony Grieggs	ENV-CP, Group Leader	Signature on File	

CONTROLLED DOCUMENT

This copy is uncontrolled. The controlled copy can be found on the ENV Division Web page.

Users are responsible for ensuring they work to the latest approved version.

History of Revisions

Document Number *[Include revision number, beginning with Revision 0]*	**Effective Date** *[Document Control Coordinator inserts effective date]*	**Description of Changes** *[List specific changes made since the previous revision]*
0	06/03	New Document
1	12/05	Annual review and revision
2	07/07	Annual review, incorporated organizational restructure changes.
3	07/09	Biennial Review and Revision
4	07/09	Biennial Review and Revision
5	10/13	Biennial Review and Revision. New format implemented.

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1.0 QUALITY PROGRAM

LANL will comply with the monitoring requirements as specified by the 2008 National Pollutant Discharge Elimination System (NPDES) Stormwater Multi-Sector General Permit for Industrial Activities. Compliance will be demonstrated through the successful implementation of this project plan and applicable procedures.

Los Alamos National Laboratory (the Laboratory) has established a comprehensive stormwater program for its industrial activities. Historically, the Laboratory operated under the NPDES Baseline General Permit and then under the NPDES 1995, 2000, and 2008 Multi-Sector General Permits. The Laboratory submitted its NOI for 2008 coverage in December 2008.

The 2008 MSGP was issued on September 22, 2008 and became effective on September 29, 2008.

The purpose of this project plan is to ensure compliance with the following:

- 2008 NPDES Multi-Sector General Permit (MSGP) and the Clean Water Act (CWA)
- DOE Order 450.1, *Environmental Protection Program*, and DOE Order 5400.5, *Radiation Protection of the Public and Environment*, which establish environmental protection program policies, requirements, and responsibilities

The Environmental Protection, Environmental Compliance Programs (ENV-CP) Water Quality Team has been tasked with overseeing institutional stormwater compliance related activities at the Laboratory.

1.1 QUALITY PROGRAM PURPOSE

This Quality Assurance Project Plan (QAPP) describes the policies and requirements that ensure MSGP activities are conducted in a consistent, agreed-upon manner.

This QA Project Plan describes the policies and requirements that ensure the MSGP processes are conducted in a consistent, agreed-upon manner. Drivers for the quality plan include:

- DOE Order 414.1C, *Quality Assurance*
- SD330, *LANL Quality Assurance Program*

This QA Project Plan (QAPP), including implementing procedures, is a sub-tier document to the SD330, *LANL Quality Assurance Program*. The following documents provide requirements to ensure that the MSGP Program is operated in accordance with established plans and procedures:

- SD330, *LANL Quality Assurance Program*
- QA Project Plan for the MSGP (this document)
- Implementing procedures

1.2 ORGANIZATION

ENV-CP is responsible for compliance oversight of the Laboratory's MSGP coverage. The Group is organized by teams under the line management direction of the Group Leader. Teams are cross-functional and focus on specific Laboratory water quality responsibilities, deliverables, or

products. Teams are guided by Team Leaders who have the responsibility to assure the program is completed and properly implemented.

The Team Leader coordinates the project and reports to the ENV-CP Group Leader. The Project Lead implements program oversight, coordinates contractor efforts (if there are any), and reports to the Team Leader. A QA Specialist is assigned to work for the Team Leader to provide quality assurance assistance, advice, and review. In addition, representatives from other groups may participate and contribute to this team as subject matter experts for project activities. The project organization is shown in Attachment 1.

Applicable regulatory drivers include the following:

- Clean Water Act (CWA)
- 2008 NPDES Multi-Sector General Permit (MSGP)
- DOE Order 450.1, *Environmental Protection Program*
- DOE Order 5400.5, *Radiation Protection of Public and Environment*
- P401, *Procedure to Identify, Communicate, and Implement Environmental Requirements*

1.3 RESPONSIBILITIES

The following table lists specific responsibilities:

Who	What
Group Leader	Assure that qualified staff complies with regulatory requirements associated with the MSGP.
Project Lead	Ensure that MSGP-related activities are performed in accordance with the requirements specified in this plan.
ENV-CP Staff	Perform MSGP-related activities as assigned by the Team Leader or Project Leader

2.0 PERSONNEL DEVELOPMENT

Qualified team members will be hired and trained as prescribed in ENV-DO-QP-115, *Personnel Training*. Minimum training requirements for ENV personnel are described in the ENV Division Qualification Standards. The LANL Human Resources Division maintains documentation of education qualification. Required MSGP qualifications and training plans are listed below.

2.1 MSGP CURRICULA

The MSGP Program requires personnel with the following training requirements:

MSGP Inspectors

Curricula 10697 ENV-RCRA MSGP Inspector
Item 43337 ENV-CP-QAPP-MSGP
Item 54892 ENV-RCRA-QP-022 MSGP Stormwater Corrective Actions

Item 42415 ENV-DO-QP-101 *Environmental Reporting Requirements for Releases or Events*
Item 42547 ENV-DO-QP-111 *Reporting Environmental Releases to Pueblo Governments*
Item 40708 ENV-DO-QP-108 *Preparation of External Correspondence for Review and Approval*
Item 43172 ENV-DO-QP-112 *Coordinating Regulatory Inspections*
Item 42891 ENV-DO-QP-113 *Tracking Issues and Actions*
Item 43805 ENV-DO-QP-114 *Logbook Use and Control*
Item 45777 ENV-DO-QP-100 *General Field Safety*

Curricula 131 Field Worker Training Requirements
Item 43562 or 3583 or 16585 CPR/AED: LANL Workplace
Item 3574 or 13264 First Aid

MSGP SWPPP Preparers

Curricula 7814 ENV-RCRA MSGP SWPPP Preparer
Item 43337 ENV-CP-QAPP-MSGP
Item 56593 ENV-RCRA-QP-044 *Preparing Storm Water Discharge Monitoring Reports (MDMRs) for the NPDES Multi-Sector General Permit*
Item 40708 ENV-DO-QP-108 *External Correspondence*
Item 43172 ENV-DO-QP-112 *Coordinating Regulatory Inspections*
Item 42891 ENV-DO-QP-113 *Tracking Issues and Actions*
Item 43805 ENV-DO-QP-114 *Logbook Use and Control*
Item 45777 ENV-DO-QP-100 *General Field Safety*

Curricula 51 ENV-RCRA Design Engineer
Item 44269, COE Review of LANL Produced Design Documents, AP-341-620
Item 44266, COE System Design Descriptions, AP-341-61
Item 44263, COE Engineering Drawings and Sketches, AP-341-608
Item 44261, COE Calculation, AP-341-605
Item 44258, COE Requirements and Criteria Document, AP-341-602
Item 44257, COE Functions & Requirements Document, AP-341-601
Item 43658, CORE Engineering Overview
Item 55428, COE Management Level Determination, AP-341-502
Item 54168, P342 Engineering Standards
Item 47029, COE LANL Review of Design by External Agencies, AP-341-622
Item 43666, Engineering Design Management
Item 43663, Engineering Technical Baseline
Item 44225, COE Evaluation of Vendor Information, AP-341-701

MSGP Visual Assessors

Curricula 10698 ENV-RCRA MSGP Visual Assessor
Item 43337 ENV-RCRA-QAPP-MSGP
Item 50493 ENV-RCRA-QP-064 *MSGP Storm Water Visual Assessments*
Item 42415 ENV-DO-QP-101 *Environmental Reporting Requirements for Releases or Events*
Item 42547 ENV-DO-QP-111 *Reporting Environmental Releases to Pueblo Governments.*
Item 40708 ENV-DO-QP-108 *External Correspondence*

Item 43172 ENV-DO-QP-112 *Coordinating Regulatory Inspections*
Item 42891 ENV-DO-QP-113 *Tracking Issues and Actions*
Item 43805 ENV-DO-QP-114 *Logbook Use and Control*
Item 45777 ENV-DO-QP-100 *General Field Safety*

Curricula 131 Field Worker Training Requirements
Item 43562 or 3583 or 16585 CPR/AED: LANL Workplace
Item 3574 or 13264 First Aid

2.2 MSGP INSPECTOR QUALIFICATIONS

Inspections:

- Post high school education or experience in engineering or environmental science or a related field; or industrial site field experience involving stormwater pollution prevention.
- 2 years experience of completing MSGP inspections or 1 year MSGP inspection experience with the Certified Inspector of Sediment and Erosion Control (CISEC) certification.
- 6 months knowledge of LANL facility operations.
- Demonstrated ability, as determined by the Multi-Sector General Permit Project Lead and/or Water Quality Team Leader, to successfully and effectively evaluate and identify the following at industrial sites:
    - Conditions and activities that could impact stormwater quality at the facility.
    - Inadequate or ineffective BMPs.
    - Required modification or maintenance of existing BMPs.
    - Locations requiring new or additional BMPs.
    - Potential pollutant sources associated with the facility.
    - Appropriate and correct site stabilization measures.
- Demonstrated ability, as determined by the Multi-Sector General Permit Project Lead and/or Water Quality Team Leader, to evaluate the compliance status of each industrial facility and document identified issues during an inspection.
- Demonstrated ability, as determined by the Multi-Sector General Permit Project Lead and/or Water Quality Team Leader, to properly and effectively complete inspection reports, including the ability to perform the following:
    - Prepare reports in a clear, concise manner, identifying site conditions and issues.
    - Write legibly and describe conditions clearly and accurately.
    - Use proper spelling and grammar.
    - Complete the MSGP Routine Inspection Report forms accurately.
    - Accurately enter findings into the Corrective Actions Report database.

- Conduct inspections in a professional manner.
- Be a member of, or contractor supporting, ENV-RCRA or ENV Division.

2.3 MSGP SWPPP PREPARER QUALIFICATIONS

SWPPP Preparation:

One of the 2 criteria below must be satisfied:

- BS degree or experience in engineering, environmental science, or related field, with a background involving stormwater pollution prevention and regulatory compliance relating to MSGP sites and a 1 year minimum of LANL facility operations knowledge and 1 year experience of completing MSGP inspections; or
- Certified Professional in Erosion and Sediment Control (CPESC) or Professional Engineer (PE) with a demonstrated background in stormwater management, sediment and erosion control, and regulatory compliance.

In addition to:

- Demonstrated ability, as determined by the Multi-Sector General Permit Project Lead and/or Water Quality Team Leader, to:
  - Prepare SWPPPs per LANL format and in compliance with NPDES MSGP requirements.
  - Identify and specify appropriate BMPs and stabilization measures.
  - Identify potential pollutant sources associated with the facility.
  - Perform necessary calculations to meet regulatory requirements.
  - Prepare a site map.
  - Be a member of, or contractor supporting, ENV-CP or ENV Division.

5.4 MSGP VISUAL ASSESSOR QUALIFICATIONS

Quarterly Visual Assessments:

- Education or experience in engineering, environmental science, or a related field; or industrial site field experience involving stormwater pollution prevention; and
- Completed ENV-RCRA training on how to collect and evaluate visual assessment; and
- Demonstrated ability, as determined by the Multi-Sector General Permit Program Lead and/or Water Quality Team Leader, to:
  - Collect quarterly visual samples at the designated outfall.
  - Complete the applicable portions of the MSGP Quarterly Visual Assessment Form.
  - Have working knowledge of the regulatory requirements in Section 4.2 of the MSGP.

5.5 TRAINING RESPONSIBILITIES

All personnel performing MSGP project-related work are required to obtain appropriate training prior to performing work governed by a procedure. Training for all project personnel will be performed and documented in accordance with ENV-DO-QP-115, *Personnel Training*.

The following table lists specific responsibilities regarding training requirements.

Who	What
Group Leader	Ensure project personnel meet all Laboratory training requirements.
Program Lead	Establish and document job descriptions for each position within the MSGP Project. Ensure all project personnel have the appropriate level of education,

	experience, and training.

3.0 QUALITY IMPROVEMENT

The MSGP Project subscribes to the principles of problem prevention and continuous improvement. The Project Lead is committed to evaluating improvement opportunities identified by trending and reporting.

The Project Lead provides verbal and written updates, as needed, to the Team Leader and Group Leader to keep group management apprised of the focus of the MSGP Project activities and to address any shortcomings that may be identified.

3.1 CORRECTIVE ACTIONS WITHIN ENV-RCRA

Corrective actions for all ENV-RCRA programs and projects are initiated, tracked, corrected, and documented according to P330-6 *Nonconformance Reporting*, P322-4 *Laboratory Performance Feedback and Improvement Process*, *SD330, Los Alamos National Laboratory Quality Assurance Program*, and Division/Group procedures.

3.3 QUALITY IMPROVEMENT RESPONSIBILITIES

The following table lists specific responsibilities for quality improvement:

Who	What
Project Lead	Monitor program performance and ensure issues are corrected in a timely manner.
ENV-CP Staff	Identify opportunities for process improvement, health and safety enhancement, environmental protection, or other improvements of the program's operations. Discuss the identified opportunities with the Project Lead. Ensure issues are reported and corrected in a timely manner.

4.0 DOCUMENT CONTROL/RECORDS MANAGEMENT

The program lead, at least one reviewer, and the Group Leader will approve all revisions to this plan. Revisions to the plan will be provided to the QA Specialist. This plan will be reviewed and revised (if necessary) biennially.

This document will be controlled under the organization's document control system (ENV-DO-QP-106, *Document Control*). Controlled copies of ENV documents are located on the Internet: http://int.lanl.gov/orgs/env/rcra/qa.shtml, all other copies are uncontrolled.

Procedures will be developed as necessary and in accordance with ENV-DO-QP-105, *Preparation, Review, and Approval of Procedures*.

Phone calls, email, or fax communications will be documented and controlled if the content provides direction or results in decisions.

4.1 PROGRAM RECORDS

The number, type, and detail of all records to be kept will provide sufficient information to allow an individual with equivalent education and training to verify or reconstruct the results. Implementing procedures specify the records, forms, logbook entries, or other information to be kept as documentation of the performance of the procedure.

Records to be kept in the ENV-CP records system include the following:

- Copy of the Multi-Sector General Permit
- Annual Site Compliance Evaluation reports
- Corrective Action Reports
- Reports and certifications required by MSGP
- Records of all data used to complete MSGP Notice of Intent
- Discharge Monitoring Reports

Records to be kept by the Deployed Environmental Professional assigned to the FOD in which the industrial facility resides includes the following:

- Copies of Stormwater Pollution Prevention Plans
- Reports and certifications required by MSGP
- Routine Inspection Forms
- Supporting analytical data reports including Visual Assessment Forms
- Corrective Action Reports
- Discharge Monitoring Reports
    - Annual Site Compliance Evaluation reports

All ENV-CP records will be maintained and available (after the deadline for submittal as given in applicable procedures) for auditing in the records center at ENV-CP (ENV-DO-QP-110, *Records Management*). Records will be archived in compliance with Laboratory and DOE requirements for records retention, storage, and management.

4.2 PROGRAM RECORDS RESPONSIBILITIES

The following table lists specific responsibilities for program records management:

Who	What
Team Leader	Ensure QAPP meets minimum specifications for documentation and records of the SD330, *Los Alamos National Laboratory Quality Assurance Program*
Program Lead	Conduct annual review of records to ensure compliance with project requirements.

4.3 ELECTRONIC MEDIA

The project will utilize electronic means as necessary to maintain data and perform calculations on these data. Electronic means will not however replace paper copies. All records that must be maintained to meet the requirements of the Permit will be kept in hard copy as the official record.

4.4 DATABASES

Analytical data will be maintained in the LANL Water Quality Database (WQDB). Security, verification, and validation of data are maintained in accordance with LANL procedures.

Security -- ENV data will be maintained electronically in a secure manner and will be protected from loss by being maintained as part of an official dataset that is backed up at least weekly.

Verification of data -- All ENV data, either electronic or hardcopy must undergo a verification and validation process that includes the following:

Verification

- Paper deliverables match electronic data that are stored in an official dataset. Paper deliverables include:
  - chain of custody for sample data
  - field log, if applicable, for sample data
  - data packages for analytical data
  - documentation packages for supporting data (e.g., geographic information system)
- All hand-entered data have been verified by a person other than the individual performing the entry
- Electronic uploads of data (e.g., electronic data deliverables) have been spot checked (at least 10%) to ensure the upload performed as expected
- Hard copy supporting information (e.g., data packages, chains of custody, validation reports, etc.) is evaluated for completeness, archived, and available for audit

Validation --analytical data validation is the responsibility of the EP Directorate. The process will include the following:

- Validate that sample and quality assurance/quality control data and information meet contract specifications
- Assign validation flags, as appropriate
- Identify the analytical supplier
- Identify the analytical method

Verification of calculations -- A person other than the person who generated the query will review for accuracy all compliance related calculations performed in a database through queries. This review will be documented and forwarded to the appropriate record series.

Spreadsheets:
Backups -- All spreadsheets used to hold data and generate reports to be used in demonstrating compliance will be maintained in a secure location. The preferred location is on the Group server. Spreadsheets will be backed up at least weekly.

Verification of data -- All compliance-related data uploaded into a spreadsheet will be verified to be accurate against the original paper copy. Data that are uploaded through electronic means will undergo a 10% verification. Data that are uploaded through manual means will undergo a 100% verification. Someone other than the data entry person must perform the 100% review. This review will be documented and forwarded to the appropriate record series.

Verification of calculations -- A person other than the person who generated the spreadsheet will review for accuracy all compliance-related calculations performed in a spreadsheet. This review will be documented and forwarded to the appropriate record series. Modifications to the function of these spreadsheets will also be verified in this manner.

Software control -- The integrity of spreadsheets will be ensured by limiting access to these spreadsheets to only trained, authorized personnel. Additionally, at least once per year, the function of the spreadsheets will be verified by hand calculations. Documentation of this review will be forwarded to the appropriate record series.

4.4 IMPLEMENTATION RESPONSIBILITIES

The following table lists specific responsibilities:

Who	What
Program Lead	Regularly assess data integrity methods used by MSGP personnel.

5.0 PLANNING AND PERFORMING WORK

Work conducted under this program ensures compliance with the 2008 Multi-Sector General Permit; the Clean Water Act; and DOE Orders 450.1, *Environmental Protection Program*, and 5400.5, *Radiation Protection of the Public and Environment*.

Work that contributes to achieving the quality specifications of the MSGP deliverables will be planned and documented as described in this document and implementing procedures.

Work will be performed according to applicable plans and implementing procedures. The team leader will provide first line supervision of personnel assigned to project tasks to ensure work is performed to achieve project quality specifications. Before changing a work process that affects the project quality specifications, the team leader will ensure the same level of planning and review as used in the initial project planning steps.

5.1 WORK PROCESSES

All work should be regarded as a process. Each process consists of a series of actions and is planned and carried out by qualified workers using specified work processes and equipment under administrative, technical, and environmental controls established by management to achieve an end result. Workers are the best resource of contributing ideas for improving work processes and will be involved in work process design, process evaluation, and providing the feedback necessary for improvement.

All work is planned and performed using the principles of Integrated Safety Management and in compliance with P300, *Integrated Work Management for Work Activities*.

5.3 WORK PERFORMANCE

Management should ensure that the following are clearly identified and conveyed to workers prior to beginning work:

- customer and data requirements for the work and final product;
- acceptance criteria applicable to work and final product;
- hazards associated with the work;
- technical standards applicable to work and final product; and
- safety, administrative, technical, and environmental controls to be employed during the work.

The work processes used to meet the regulatory requirements and the requirements of this plan can be divided as follows:

- Stormwater Pollution Prevention Plans (Multi-Sector General Permit Section 5.0)
- Inspections (Multi-Sector General Permit Section 4.0)
- Monitoring (Multi-Sector General Permit Section 6.0)
- Discharge Monitoring Reports (Multi-Sector General Permit Section 7.1 – Reporting Monitoring Data to EPA)
- Best Management Practices (Multi-Sector General Permit Section 2.0 –Control Measures)
    - Reporting and Recordkeeping (Multi-Sector General Permit Section 7.0)

5.4 STORMWATER POLLUTION PREVENTION PLAN

Stormwater Pollution Prevention Plan (SWPPP) development and implementation by the regulated industrial facility is required for MSGP compliance (refer to Section 8.0 of the 2008 MSGP for S*ector-Specific Requirements for Industrial Activity* and Appendix D, *Sectors of Industrial Activity Covered by This Permit*). The SWPPP is intended to document the selection, design, and installation of control measures. Additional documentation requirements are intended to document the implementation (including inspection, maintenance, monitoring, and corrective

action) requirements identified in the 2008 MSGP permit. The SWPPP is a written assessment of potential sources of pollutants in stormwater runoff and control measures that will be implemented at the specific industrial facility to minimize the discharge of pollutants in runoff from the site. These control measures include site-specific Best Management Practices (BMPs), inspections, employee training, and reporting. The procedures detailed in the SWPPP must be implemented by the facility and updated as necessary, with a copy of the SWPPP kept on-site.

The SWPPP development process involves evaluating regulated industrial activities and requiring Facility Management support in implementation, improvement, and revision of the Plans.

5.4.1 DISCHARGE MONITORING REPORTS

The Laboratory is required to submit analytical results of stormwater monitoring and to keep the results with the facility specific SWPPP. The Laboratory must certify and submit analytical monitoring results obtained from each facility specific sampling location (i.e., the sampling station located at the monitored outfalls) associated with industrial activity on a Discharge Monitoring Report (DMR) form or use it to report any of the following:

- no discharge for all outfalls for a specific monitoring period;
- the industrial facility status has changed to inactive and unstaffed;
- the facility status has changed to active; or
- no further pollutant reductions are achievable for all outfalls and for all pollutants (see Section 6.2.1.2 of the 2008 MSGP).

5.4.2 ANNUAL SITE COMPLIANCE EVALUATION REPORT

The Laboratory is required to submit an annual report (Attachment 2) to the Environmental Protection Agency (EPA) that includes the findings from the comprehensive site inspection and any corrective action documentation. The documentation must include the following:

- identification of the condition triggering the need for corrective action review;
- date and description of the problem identified;
- summary of the corrective action taken or to be taken;
- notice of whether SWPPP modifications are required as a result of the discovery or corrective action;
- date corrective action was initiated; and
- date corrective action was completed or is expected to be completed.

The following table lists responsibilities:

Who	What
Project Lead	Ensure that SWPPP requirements are performed in accordance with the MSGP.

Facility Management Support	Implement SWPPP requirements as recommended by the Project Lead.
ENV-CP Staff and Deployed Environmental Professionals (DEPs)	Assure SWPPP implementation as required by MSGP.
DEPs	Develop, modify, and update SWPPPs and assist facility personnel with SWPPP implementation.

5.5 INSPECTIONS

The MSGP requires periodic inspection of industrial processes and maintenance of (BMPs) to assure effectiveness of control measures. The Laboratory has implemented a quarterly or monthly inspection process (depending on the industrial facility) to support this determination. A copy of the Routine Inspection Form is provided in Attachment 3.

5.6 STORMWATER MONITORING

Benchmark stormwater monitoring is the required mechanism for determining the effectiveness of corrective actions and meeting the requirements of the MSGP. Refer to Attachment 4, *MSGP Facilities and Stormwater Monitored Outfalls Associated with Industrial Activity 2011***,** for a list of Laboratory sites that have monitoring requirements. Laboratory management has made an investment in time and materials, in addition to a commitment to comply with the 2008 MSGP Permit. All stormwater monitoring is conducted by ENV-CRP personnel. The MSGP Project currently has a network of 23 monitoring stations. Considerations to be used for MSGP stormwater monitoring development decisions will include MSGP requirements, new state water quality standards, Administrative Authority requests, or new permit requirements. Stormwater monitoring will be conducted as specified in the MSGP.

Effluent Limitations stormwater monitoring is required for the following type of facility of LANL:

Regulated Activity	**Parameter**	**Effluent Limit**	**Monitoring Frequency**	**Sample Type**
Discharges from asphalt emulsion facilities	Total Suspended Solids	23.0 mg/L daily max. 15.0 mg/L, 30-day avg.	1/year	grab
	pH	6.0-9.0 s.u.	1/year	grab
	Oil and Grease	10.0 mg/L 30-day avg.	1/year	grab

This determination was made in accordance with Section 1.1.2.4 of the MSGP. The TA-60 Asphalt Batch Plant meets the criteria for effluent limitations monitoring in this section. Exceedances of the effluent limits in this table require immediate action. In addition, if follow-up monitoring after corrective actions also exceeds an effluent limit guideline, an Exceedance Report for Numeric Effluent Limits must be submitted to EPA no later than 30 days after lab results have been received and verified.

Impaired Waters stormwater monitoring is required for discharges made to an impaired water. The canyons within and surrounding Los Alamos National Laboratory are declared as Impaired Waters by the New Mexico Environment Department. The pollutants vary from canyon to canyon and are listed in Attachment 5, *Pollutants Under Impaired Waters Monitoring.* The pollutants may be discontinued in subsequent annual monitoring if the concentration is below background levels in stormwater or if the constituent is not detected.

Visual assessments are also required by the MSGP and are an important tool for collecting information to determine the effectiveness of controls in preventing potential contaminants from migrating off Laboratory property. Accordingly, field personnel must conduct visual assessments for stormwater collected at the monitoring stations or discharged through substantially identical outfalls associated with industrial facilities located throughout the Laboratory. Information recorded will document all observations that are required by the MSGP (see ENV-RCRA-QP-064, *Multi-Sector General Permit Storm Water Visual Inspections*).

The Laboratory's MSGP permit requires stormwater quality monitoring to evaluate compliance with water quality standards and evaluation against benchmarks. Parameters sampled at the monitoring stations are selected based on permit requirements and the results of the previous year.

Four stormwater samples per year are required under the 2008 MSGP, but it is not necessary to collect them in consecutive quarters if climatic conditions that prevented quarterly collection are documented (see *Adverse Weather Conditions* in Section 6.1.5 of the MSGP). Sample locations are listed in Attachment 4, *MSGP Facilities and Stormwater Monitored Outfalls Associated with Industrial Activity 2011*, and collection will be conducted in accordance with LANL and NPDES Permit requirements and the current year MSGP Sampling and Analysis Plan.

Stormwater samples are used to demonstrate compliance with water quality standards and requirements to evaluate results against benchmark parameters (Attachments 5 and 6). Any persons involved in the preparation, retrieval, and analysis must maintain positive control of samples at all times until sample disposal. ENV-RCRA personnel will follow guidance in the Associate Directorate for Environmental Programs (ADEP) document ENV-WQH-QP-029, *Creating and Maintaining a Chain of Custody*, as well as, ENV-RCRA-QP-047, *Inspecting Storm Water Runoff Samplers and Retrieving Samples*, and ENV-RCRA-QP-048, *Processing MSGP Storm Water Samples*.

Chain of custody is maintained during:

Activity	Responsibility
Sample collection and preparation	All persons (other than analytical personnel) performing sample preparation and collection will be trained to sample collection procedures and must adhere to the chain of custody requirements therein.
Analysis	Analytical laboratories performing sample analysis will maintain sufficient procedures to ensure positive control of samples as specified in the existing Statement of Work.
Storage/ disposal	Analytical laboratories will maintain retained samples and/or sample portions under chain of custody until reanalysis, or ultimate disposal.

The LANL Sample Management Office (SMO) will be the central point for all analytical laboratory selection, evaluations, sample submittal, and data return. The SMO will evaluate potential analytical laboratories, prepare analytical statements of work that include requirements, and arrange contracts with selected laboratories for analysis of all samples. The SMO will accept samples from field collection personnel, process the sample, ship the samples to the off-site analytical laboratories, and receive the data packages from the laboratories.

All analytical data will be received from analytical laboratories in electronic format and uploaded into a database. All received data will be checked for completeness and adherence to contract requirements. After uploading, all data will undergo verification and validation (V&V) for evidence of laboratory contamination, improper analytical method, and other analytical issues which could potentially affect data quality.

Field data collected by sample collection personnel will be verified and validated by the SMO when field personnel deliver samples to the SMO.

If significant V&V issues are identified, results will be forwarded to and discussed with the responsible project leads.

Data issues that result from procedural failures, personnel errors, or other failures to follow requirements will be documented as issues and corrected according to ENV-DO-QP-113, *Tracking Issues and Actions*.

The following table lists responsibilities:

Who	What
Project Lead	Ensure that all project monitoring requirements are performed in accordance with the MSGP. Review and update the MSGP Sampling and Analysis Plan annually.

	When complete, communicate findings to the team members for implementation. Make appropriate arrangements with the SMO to accept, process, and submit samples to an analytical laboratory for required analyses as specified in the SAP.
MSGP Water Quality Compliance Personnel	• Implement monitoring program as required by the MSGP Project Lead. • Conduct stormwater sampling in accordance with the MSGP Sampling and Analysis Plan and applicable procedures. • Ensure procedures for sample handling and control during sample preparation and retrieval are followed.
Sample Management Office	• Develop Statements of Work (SOW) for all analytical laboratories that perform analytical work for the MSGP project in accordance with P840-1, *Procurement Quality*. • Ensure analytical laboratories comply with the DOE's SOW. Conduct an annual audit of the laboratory to ensure compliance with the SOW. • Approve Statements of Work for analytical laboratories that are contracted to analyze water samples. • Approve analytical laboratories that are contracted to analyze water samples for regulatory compliance purposes. • Accept samples and submit them to and approved analytical laboratory for analysis. • Track progress of samples at the analytical laboratory and resolve issues with sample analysis. • Receive data packages from the analytical laboratory and enter data into the database. • Provide the MSGP Project Lead with monthly invoice updates. • Perform V&V of field data submitted and uploaded from forms when samples are submitted to the SMO.
Operations Integration Office (OIO), Systems Integration (SI)	Perform V&V of data packages uploaded by the SMO or send data packages to a subcontractor company for independent V&V.

5.7 DISCHARGE MONITORING REPORTS

The Laboratory is required to submit analytical results of stormwater monitoring and to keep the results with the specific SWPPP. The Laboratory must submit analytical monitoring results obtained from each monitoring station associated with industrial activity on a MSGP Discharge Monitoring Report (MDMR) form (one form must be submitted for each storm event from which, a sample was collected).

MDMRs shall be written in accordance with ENV-RCRA-QP-044, *Preparing Storm Water Discharge Monitoring Reports (MDMRs) for the NPDES Multi-Sector General Permit*. MDMRs shall be submitted to EPA within 30 calendar days of receiving validated

analytical results. Refer to the DMR language under the SWPPP Section above for additional requirements.

Site analytical requirements are defined by the industrial activity in the MSGP permit. All MSGP analytes applicable to LANL are consistent with the requirements of 40 CFR Part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants.*

Sample analytical requirements vary by site depending on the industrial activities performed at the site. Refer to Attachment 5 for a list of analytes by industrial sector. If an insufficient quantity of sample is available, then sample collection will be prioritized at that location for future events. Additional samples may be collected to meet permit requirements.

ENV-RCRA shall refer to the requirements of the 2008 Multi-Sector General Permit, and the most current MSGP Sampling and Analysis Plan to determine the priorities of required analyses.

The following table lists responsibilities:

Who	What
Project Lead	• Ensure implementing procedures for sample analyses are used. • Ensure that MDMRs are submitted to EPA and NMED in accordance with the MSGP.
MSGP Water Quality Compliance Personnel	Assure MDMRs are completed and certified as required by the MSGP and have received a full quality assurance review.

5.8 ADVERSE WEATHER CONDITIONS AND CLIMATES WITH IRREGULAR STORMWATER RUNOFF

Section 4.2.3 of the 2008 MSGP allows the industrial facility to take a substitute sample during the next qualifying storm event when adverse weather conditions prevent the collection of samples during a specific quarter. Adverse weather conditions are those that are dangerous or create inaccessibility for personnel, such as local flooding, high winds, or electrical storms, or situations that otherwise make sampling impractical, such as drought or extended frozen conditions. Documentation of the rationale for no visual assessment for the quarter must be included in the facility specific SWPPP.

Since LANL is located in an area where limited rainfall occurs during parts of the year (i.e., in a semi-arid climate) and has periods of freezing conditions, LANL has identified an alternative monitoring period of four quarters as follows for each calendar year.

- April 1-May 31

- June 1-July 31
- August 1-September 30
- October 1-November 30

The following table lists specific responsibilities.

Who	What
Project Lead	Ensure that the monitoring schedule is documented in facility specific SWPPPs and provided to EPA on the MDMRs.

5.9 REPORTING AND RECORDKEEPING

All monitoring data shall be collected in accordance with the requirements specified in the 2008 MSGP. LANL will submit monitoring results to EPA within 30 days of receiving validated laboratory results. The address for submittal of monitoring results is as follows.

U.S. Environmental Protection Agency
Office of Water, Water Permits Division
Mail Code 4203M, ATTN: MSGP Reports
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

LANL shall keep copies of the following documentation for a period of at least 3 years from the date that LANL's coverage under the MSGP expires or is terminated.

- SWPPP (including any modifications made during the term of the 2008 MSGP)
- Additional documentation requirements as identified in Section 5.4 of the MSGP
- All reports and certifications required by the MSGP
- Monitoring data
- Records of all data used to complete the NOI.

The following table lists specific responsibilities:

Who	What
Project Lead	Periodically audit MSGP records to ensure documentation of compliance is being retained.
Deployed Environmental Professionals	Retain records as required by the MSGP for industrial facilities located in their FOD.

5.10 BEST MANAGEMENT PRACTICES

It is critical that the Laboratory be able to effectively inspect and maintain the Best Management Practices that have been installed at various locations. Quarterly inspections must be completed and provided to the Project Lead for inclusion into the records system. In addition, the Project Leader conducts a Comprehensive Annual Site Inspection and writes a report to document the status of BMPs and other identified corrective actions. This report is sent to EPA each year. Laboratory management has made an investment in time and materials, in addition to a commitment to minimizing the potential migration of contaminants in stormwater. Report findings are evaluated and in conjunction with facility personnel, BMPs are modified, installed, or removed as necessary.

The following table lists responsibilities.

Who	What
Project Lead	Assist facility personnel and Deployed Environmental Professionals with implementation, inspection, and maintenance of BMPs at MSGP facilities.
Facility Management Support	• Coordinate with Project Lead and provide funding as needed to install, inspect, maintain and implement identified BMPs. • Certify the corrective actions identified by the Project Lead and/or facility personnel (or their representatives) for their individual facilities in the Annual Report.

5.11 INFORMATION MANAGEMENT

The Water Quality Database is a database information system designed in part to support the information management (IM) needs of the Laboratory's MSGP. MSGP support includes stormwater discharge monitoring reporting, Geographic Information System (GIS) development, and other IM activities as needed.

The following table lists responsibilities:

Who	What
Project Lead	Coordinate with IM support personnel to meet regulatory requirements.

5.12 RESPONDING TO WATER QUALITY EXCEEDANCES

The identification of a pollutant source(s) contributing to a water quality exceedance will be addressed through the creation of a corrective action that is entered into the Corrective Acton

Report database in accordance with ENV-DO-QP-113, *Tracking Performance Feedback and Actions* and *ENV-RCRA-QP-022, MSGP Stormwater Corrective Actions*. Federal stormwater regulations implemented under the Laboratory's MSGP (40 CFR 122, EPA Administered Permit Programs: The National Pollutant Discharge Elimination System) require that corrective action be taken if exceedances of water quality standards or MSGP numeric effluent limits are identified. Corrective actions are typically accomplished by modifying, as appropriate, existing BMPs and SWPPPs.

When a water quality exceedance occurs, the Laboratory will submit the data on the required MDMRs, investigate the occurrence, and document corrective actions.

When an exceedance of the MSGP benchmark parameters is detected, the Project Lead will assure the analytical data is reviewed, notify appropriate SWPPP owners, and recommend and track corrective actions where required.

The following steps lead to corrective actions:

STEP	Action
1	Establish that an analytical result from a location is valid and has exceeded a standard or MSGP benchmark.
2	Evaluate and demonstrate that the analyte is of LANL origin, if possible.
3	Determine the source and assign responsibility for the corrective action.
4	Develop a corrective action plan.

The following table lists responsibilities:

Who	What
Project Lead	• Assure that analytical data is reviewed and accurate. • Notify appropriate SWPPP owners, Laboratory management, and Deployed Environmental Professionals. • Develop a corrective action plan. • Follow up with corrective actions if required. • Track corrective actions.
Facility Management and DEP	• Review analytical data with Project Lead and provide input into a possible corrective action necessary to improve water quality where needed. • Evaluate and improve BMPs in accordance with site conditions, industry standards, and manufacturer

	recommendations.

5.13 INSTRUMENTATION AND EQUIPMENT

Compliance will be tracked by performing inspections of samplers and other associated equipment, inspecting BMPs, and conducting annual site compliance evaluations. Adequate records will be maintained to demonstrate the operating history of essential instrumentation and equipment.

LANL will properly operate and maintain all systems of monitoring and control and related appurtenances which are installed or used to achieve compliance with the MSGP and the SWPPP. Backup instrumentation and equipment will be timely deployed in the event of equipment failure.

Instrument calibration is essential for documenting the quality of data obtained with the instrument. All technical work that depends upon the accuracy of data will be performed using equipment for which the calibration status and limits of accuracy are known and controlled.

Field team personnel will calibrate and perform maintenance procedures on all monitoring and analytical field instruments to ensure accuracy of measurements and will maintain appropriate records of such activities. All field calibrations will be documented as prescribed by procedures or manufacturer's instructions.

The following table lists specific responsibilities.

Who	What
Project Lead	• Ensure data are collected and equipment is operated and maintained in accordance with project requirements. • Provide equipment maintenance and calibration specifications and ensure MSGP Water Quality Compliance Team personnel operate and conduct field activities in accordance with implementing procedures and specific work orders.

6.0 DESIGN

Design activities will be conducted and reviewed in accordance with PD340, *Conduct of Engineering* and P341, *Engineering Process Manual*.

Design standards under this program include, but are not limited to temporary and permanent BMPs, corrective action measures, and stormwater monitoring support.

Design inputs will be specified and approved on a timely basis for making design decisions. Inputs will contain the level of detail required to permit the performance of design activities correctly.

Formal design reviews, including design verifications and evaluation of design changes, will be conducted to ensure that the design input is correctly incorporated into the design output. Changes to design will undergo the same review as the original design.

Verification and validation of the adequacy of designs are conducted before relying on the performance of the design function. Verification and validation are conducted in accordance with implementing procedures.

The following table lists responsibilities.

Who	What
Project Lead	• Provide input to the design process in accordance with appropriate standards, requirements, and implementing procedures. • Determine the qualifications required to perform a review of design documents. • Identify a resource with skills, knowledge, ability, training, and certifications required to complete the review of the facility engineering design documents. • Communicate the results of the review to the requestor.
ENV-CP Staff	Review design documents and requests as assigned. Inform the Project Lead of concerns regarding the facility engineering designs.

7.0 PROCUREMENT

Items and services required for this process are commercial grade in nature and no special procurement requirements or needs are necessary. All procurements will be made in accordance with P840-1, *Procurement Quality*. For items and all services for which special requirements are necessary, the Project Lead and project members will identify such items or services.

The following table lists responsibilities:

Who	What
Group Leader	Ensure all procurements are conducted in accordance with P840-1.
Project Lead	Recommend to Group Leader contracting items and services. Develop acceptance criteria.
ENV-CP Staff	Identify potential suppliers of products or services necessary to complete work activities that must be procured from outside ENV-RCRA.

8.0 INSPECTION AND ACCEPTANCE TESTING

Any materials or services will be inspected and/or tested prior to acceptance for use in this project in accordance with P330-8, *Inspection and Test for Acceptance*. Most supplies used during performance of project activities are commercial grade in nature and require no special acceptance practices or procedures.

The following table lists responsibilities:

Who	What
Group Leader	Ensure procedures for inspection meet SD330, *Los Alamos National Laboratory Quality Assurance Program* requirements.
Project Lead	Verify that all materials and services meet acceptance criteria.
ENV-CP Staff	Follow established procedures for inspection and acceptance testing.

9.0 MANAGEMENT ASSESSMENT

The ENV-CP Group conducts internal management assessments of projects and programs in accordance with the requirements in P328-3, *Management Assessment* and P328-4, *Management Observation and Verification*. Assessments of the program are documented and filed as records.

When violations of requirements are found during a management assessment, a nonconformance report is initiated in accordance with P330-6, *Nonconformance Reporting* for nonconforming items. Nonconforming services or processes are tracked and documented in accordance with P322-4, *Issues and Corrective Action Management*.

The following table lists responsibilities:

Who	What
Group Leader	Ensure management self-assessments for the MSGP program are conducted as specified in implementing procedures.
Project Lead	Ensure program management self-assessments are conducted.

10.0 INDEPENDENT ASSESSMENT

Independent assessments are those assessments conducted by organizations external to ENV-RCRA. As required by the SD330, *Los Alamos National Laboratory Quality Assurance Program*, this program may be assessed by outside organizations in accordance with P328-2, *Independent Assessment*.

Periodically audits/assessments will be conducted, with input from the Project Lead identifying one or more areas of the project to be audited.

The following table lists responsibilities:

Who	What
Project Lead	• Approve audit schedules. • Provide input to the QA Specialist as to the content of audit. • Review audit reports for factual accuracy. Address all findings and implement corrective actions as appropriate.
QA Specialist	• Identify areas to be addressed during internal audits. • Contract with the Quality Management Group to perform annual internal audits. • Review audit procedures to ensure they meet the requirements in this section.
Team Members	Cooperate with auditors by providing information, data, etc. Implement corrective actions as directed by the Project Lead.

11.0 ATTACHMENTS

Attachment 1- MSGP Program Organization

Attachment 2 – Annual Reporting Form

Attachment 3 – Routine Inspection Form

Attachment 4 – MSGP Facilities and Storm Water Monitored Outfalls Associated with Industrial Activity 2011, Permit NMR05GB21

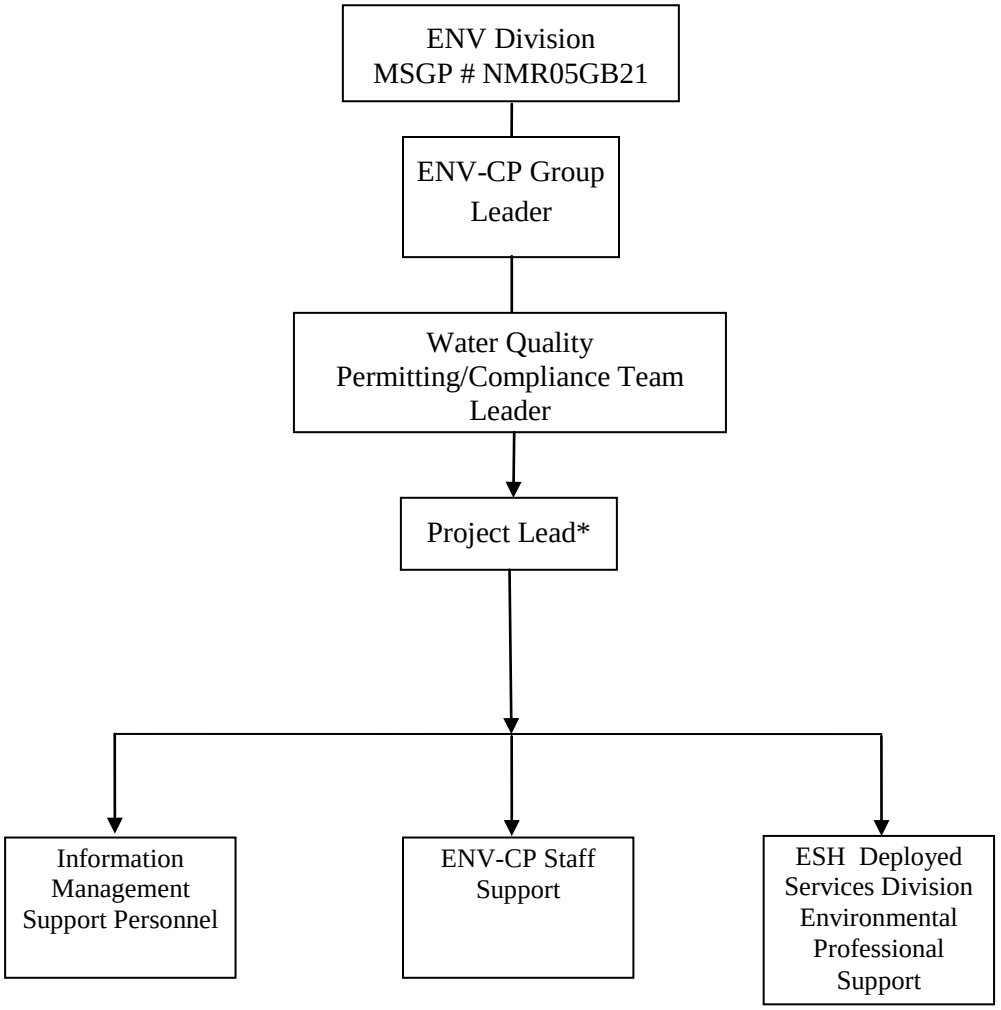
Attachment 5 – Pollutants under Impaired Waters Monitoring

Attachment 6 – Analytes by Industrial Sector

Attachment 7 – References and Guidance Documents

Click here for "Required Read" credit.

ATTACHMENT 1- MSGP PROGRAM ORGANIZATION



*Project Lead acts as liaison and will work directly with Team Leaders for staff assignments.

ATTACHMENT 2 – ANNUAL REPORTING FORM

NPDES Permit Tracking No.:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

Annual Reporting Form

A. GENERAL INFORMATION

1. Facility Name:
2. NPDES Permit Tracking No.:
3. Facility Physical Address:
   a. Street:
   b. City: c. State: d. Zip Code: -
4. Lead Inspectors Name: Title:
   Additional Inspectors Name(s):
5. Contact Person: Title:
   Phone: - - Ext. E-mail:
6. Inspection Date: / /

B. GENERAL INSPECTION FINDINGS

1. As part of this comprehensive site inspection, did you inspect all potential pollutant sources, including areas where industrial activity may be exposed to stormwater?
   ☐ YES ☐ NO

   If NO, describe why not:

NOTE: *Complete Section C of this form for each industrial activity area inspected and included in your SWPPP or as newly identified in B.2 or B.3 below where pollutants may be exposed to stormwater.*

2. Did this inspection identify any stormwater or non-stormwater outfalls not previously identified in your SWPPP? ☐ YES ☐ NO

   If YES, for each location, describe the sources of those stormwater and non-stormwater discharges and any associated control measures in place:

NPDES Permit Tracking No.:

3. Did this inspection identify any sources of stormwater or non-stormwater discharges not previously identified in your SWPPP? ☐ YES ☐ NO

If YES, describe these sources of stormwater or non-stormwater pollutants expected to be present in these discharges, and any control measures in place:

4. Did you review stormwater monitoring data as part of this inspection to identify potential pollutant hot spots? ☐ YES ☐ NO ☐ NA, no monitoring performed

If YES, summarize the findings of that review and describe any additional inspection activities resulting from this review:

5. Describe any evidence of pollutants entering the drainage system or discharging to surface waters, and the condition of and around outfalls, including flow dissipation measures to prevent scouring:

6. Have you taken or do you plan to take any corrective actions, as specified in Part 3 of the permit, since your last annual report submission (or since you received authorization to discharge under this permit if this is your first annual report), including any corrective actions identified as a result of this annual comprehensive site inspection?

☐ YES ☐ NO

If YES, how many conditions requiring review for correction action as specified in Parts 3.1 and 3.2 were addressed by these corrective actions? ☐☐

***NOTE:** Complete the attached Corrective Action Form (Section D) for each condition identified, including any conditions identified as a result of this comprehensive stormwater inspection.*

NPDES Permit Tracking No.:

C. INDUSTRIAL ACTIVITY AREA SPECIFIC FINDINGS

Complete one block for each industrial activity area where pollutants may be exposed to stormwater. Copy this page for additional industrial activity areas.

In reviewing each area, you should consider:

- Industrial materials, residue, or trash that may have or could come into contact with stormwater;
- Leaks or spills from industrial equipment, drums, tanks, and other containers;
- Offsite tracking of industrial or waste materials from areas of no exposure to exposed areas; and
- Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas.

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO

3. Have any control measures failed and require replacement? ☐ YES ☐ NO

4. Are any additional/revised control measures necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO

3. Have any control measures failed and require replacement? ☐ YES ☐ NO

4. Are any additional/revised c necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA _____:

Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO

3. Have any control measures failed and require replacement? ☐ YES ☐ NO

4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

NPDES Permit Tracking No.:

NOTE: *Copy this page and attach additional pages as necessary*

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO

3. Have any control measures failed and require replacement? ☐ YES ☐ NO

4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO

3. Have any control measures failed and require replacement? ☐ YES ☐ NO

4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO

3. Have any control measures failed and require replacement? ☐ YES ☐ NO

4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

NPDES Permit Tracking No.:

D. CORRECTIVE ACTIONS

Complete this page for each specific condition requiring a corrective action or a review determining that no corrective action is needed. Copy this page for additional corrective actions or reviews.

Include both corrective actions that have been initiated or completed since the last annual report, and future corrective actions needed to address problems identified in this comprehensive stormwater inspection. Include an update on any outstanding corrective actions that had not been completed at the time of your previous annual report.

1. Corrective Action # ☐☐ of ☐☐ for this reporting period.

2. Is this corrective action:

- ☐ An update on a corrective action from a previous annual report; or
- ☐ A new corrective action?

3. Identify the condition(s) triggering the need for this review:

- ☐ Unauthorized release or discharge
- ☐ Numeric effluent limitation exceedance
- ☐ Control measures inadequate to meet applicable water quality standards
- ☐ Control measures inadequate to meet non-numeric effluent limitations
- ☐ Control measures not properly operated or maintained
- ☐ Change in facility operations necessitated change in control measures
- ☐ Average benchmark value exceedance
- ☐ Other (describe): _____

4. Briefly describe the nature of the problem identified:

5. Date problem identified: ☐☐/☐☐/☐☐☐☐

6. How problem was identified:

- ☐ Comprehensive site inspection
- ☐ Quarterly visual assessment
- ☐ Routine facility inspection
- ☐ Benchmark monitoring
- ☐ Notification by EPA or State or local authorities
- ☐ Other (describe): _____

7. Description of corrective action(s) taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications or repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, basis for that determination:

8. Did/will this corrective action require modification of your SWPPP? ☐ YES ☐ NO

9. Date corrective action initiated: ☐☐/☐☐/☐☐☐☐

10. Date correction action completed: ☐☐/☐☐/☐☐☐☐ or expected to be completed: ☐☐/☐☐/☐☐☐☐

11. If corrective action not yet completed, provide the status of corrective action at the time of the comprehensive site inspection and describe any remaining steps (including timeframes associated with each step) necessary to complete corrective action:

NPDES Permit Tracking No.:

E. ANNUAL REPORT CERTIFICATION

1. Compliance Certification

Do you certify that your annual inspection has met the requirements of Part 4.2 of the permit, and that, based upon the results of this inspection, to the best of your knowledge, you are in compliance with the permit? ☐ YES ☐ NO

If NO, summarize why you are not in compliance with the permit:

2. Annual Report Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Authorized Representative Printed Name: Title:

Signature: Date Signed:

ATTACHMENT 3 – ROUTINE INSPECTION FORM

Name of Facility:	**Responsible FOD (Name & Organization):**	
Qualified Inspector(s): **Others Present:**	**Inspection type:** □ **Quarterly** □ **Other**	**Date of inspection (MM/DD/YYYY):** **Time of inspection:**

Weather: ❑ **Clear** ❑**Cloudy** ❑ **Rain** ❑ **Sleet** ❑ **Fog** ❑ **Snow** ❑ **High Winds** ❑ **Other:**
Temperature: **° F** **Is Inspection Being Conducted During a Storm Water Discharge?** ❑**Yes** ❑**No**

#	**Structural Control Measures (BMP)s**	**Location**	**Operating Effectively (Yes or No)?**	**If No, Need to Maintain (M), Repair (R) or Replace (RP)?**	**Corrective Action Needed and Notes** (identify needed maintenance and repairs, or any failed control measures that need replacement)
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12					

Were additional BMPs or Control Measures implemented? □ **Yes** □ **No Describe:**

Were previously identified conditions corrected before the next anticipated storm event? □ **Yes** □ **No If No, describe reason:**

Area/Activity (Areas of Industrial Materials or Activities Exposed to Storm Water)	**Inspected ?**	**Controls Adequate?**	**Corrective Action Needed and Notes (List area letter with comments below)**
A. Material loading/unloading & storage areas			
B. Equipment operations & maintenance areas			
C. Fueling Areas			
D. Outdoor vehicle & equipment washing areas			
E. Waste Handling & disposal areas			
F. Erodible areas / construction			
G. Non-storm water / illicit connections			

H. Salt storage piles or pile containing salt			
I. Dust generation & vehicle tracking			
Are the SWPP Plan maintenance, schedules and procedures being implemented at the facility? □ Yes □ No			
Were any Corrective Actions initiated or completed? □ Yes □ No Describe:			
Are there any conditions requiring Corrective Action? □ Yes □ No If Yes, List Number of Corrective Actions Required _____ **(Note – You need enter a Corrective Action in the MSGP Corrective Action Report database for each listed)**			

ATTACHMENT 4 -- MSGP FACILITIES AND STORM WATER MONITORED OUTFALLS ASSOCIATED WITH INDUSTRIAL ACTIVITY 2011, PERMIT NMR05GB21

Location	Permitted Facility	Operation	Activity	Sector	Monitored Outfall	• Canyon
TA-15-185	TA-15-185 PHERMEX	Vehicle Maintenance Shop	Vehicle Maintenance	P	15-PHRMX-1	• Water
TA-3-0034	TA-3-0034 Metal Shop	Fabricated Metals	Fabricated Metals	AA	3-MST-1	• Mortandad
TA-3-22	TA-3-22 Power & Steam Plant	Power Plant	Steam Electric Power	O	3-PSP-1 3-PSP-5 3-PSP-8	• Sandia • •
TA-3-38	TA-3-38 Metals Fab Shop	Metal Shop	Fabricated Metals	AA	3-MFS-1	• Sandia
TA-3-39	TA-3-39 & 102 Metal Shop	Metal Shop	Fabricated Metals	AA	3-TS-1	• Pajarito
TA-3-66	TA-3-66 Sigma Complex	Sigma Foundry	Primary Metals	F	3-Sigma-6	• Sandia
TA-54	TA-54 Area G	Area G - South Side	TSD	K	54-G-1	• Pajarito
TA-54	TA-54 Area G	Area G -North Side	TSD	K	54-G-2	• Canada del Buey
TA-54	TA-54 Area G	Area G - South Side	TSD	K	54-G-3	• Pajarito
TA-54	TA-54 Area G	Area G - South Side	TSD	K	54-G-4	• Pajarito
TA-54	TA-54 Area L	Area L	TSD	K	54-L-1	• Canada del Buey
TA-54-38	TA-54 RANT	RANT	TSD	K	54-RANT-1	• Canada del Buey
TA-60	TA-60 Asphalt Batch Plant	Asphalt Batch Plant	Asphalt Paving	D	60-ABP-1	• Mortandad
TA-60	TA-60 MRF	Materials Recycling Facility	Scrap Recycling	N	60-MRF-1	• Sandia
TA-60-250	TA-60 Roads and Grounds	Roads & Grounds Facility	Vehicle Maintenance & Storage	P P P	60-RG-1 60-RG-3 60-RG-8	• Mortandad • Sandia • Sandia
TA-60-1	TA-60-1 Heavy Equipment Yard	Motor pool	Vehicle Maintenance	P	60-HEY-2	• Sandia
TA-60-2	TA-60-2 Warehouse	Motor pool	Vehicle Maintenance	P	60-WH-1	• Sandia
TA-9-28	TA-9-28 Heavy Equipment Maintenance	Motor pool	Vehicle Maintenance	P	9-HEM-1	• Pajarito

ATTACHMENT 5 – POLLUTANTS UNDER IMPAIRED WATERS MONITORING

Permitted Facility	Monitored Outfall	Assessment Unit	Canyon	Pollutant
TA-54 Area G TA-54 Area L TA-54-RANT	54-G-2 54-L-1 54-RANT-1	NM-128.A_00	Canada del Buey (within LANL)	PCBs Aluminum Gross Alpha
TA-54 Area G TA-54 Area G TA-54 Area G	54-G-1 54-G-3 54-G-4	NM-128.A_08	Pajarito Canyon (within LANL below Arroyo de la Delfe)	PCBs Aluminum Copper Gross Alpha
TA-15-185 PHERMEX	15-PHRMX-1	NM-128.A_13	Water Canyon (within LANL below Area-A Canyon)	PCBs Aluminum Gross Alpha
TA-3-39 & 102 Metal Shop	3-TS-1	NM-128.A_15	Two Mile Canyon (Pajarito to headwaters)	PCBs Aluminum Gross Alpha
TA-9-28 Heavy Equipment Maintenance	9-HEM-1	NM-128.A_16	Arroyo de la Delfe (Pajarito Canyon to headwaters)	Aluminum Mercury Gross Alpha
TA-60 Asphalt Batch Plant TA-3-0034 Metal Shop TA-60 Roads and Grounds	60-ABP-1 3-MST-1 60-RG-1	NM-9000.A_042	Mortandad Canyon (within LANL)	Aluminum Copper Gross Alpha
TA-3-38 Metals Fab Shop TA-3-22 Power & Steam Plant TA-3-22 Power & Steam Plant TA-3-22 Power & Steam Plant TA-3-66 Sigma Complex TA-60-1 Heavy Equipment Yard TA-60 MRF TA-60 Roads and Grounds TA-60 Roads and Grounds TA-60-2 Warehouse	3-MFS-1 3-PSP-1 3-PSP-5 3-PSP-8 3-Sigma-6 60-HEY-2 60-MRF-1 60-RG-3 60-RG-8 60-WH-1	NM-9000.A_047	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	PCBs Aluminum Copper Gross Alpha Mercury

ATTACHMENT 6 – ANALYTES BY INDUSTRIAL SECTOR

Permitted Facility	Monitored Outfall	Sector	Activity	Analyte	Monitoring Requirement
TA-3-0034 Metal Shop	3-MST-1	AA	Fabricated Metals	Aluminum	Quarterly Benchmark Monitoring (QBM)
TA-3-38 Metals Fab Shop	3-MFS-1			Iron	QBM
TA-3-39 & 102 Metal Shop	3-TS-1			Nitrate plus Nitrite Nitrogen	QBM
				Zinc	QBM
TA-60 Asphalt Batch Plant	60-ABP-1	D	Asphalt Paving	Oil and Grease	Effluent Limitations Guidelines (ELG)
				pH	ELG
				Total Suspended Solids	QBM and ELG
TA-3-66 Sigma Complex	3-Sigma-6	F	Primary Metals	Copper	QBM
				Zinc	QBM
TA-54 Area G	54-G-1	K	Treatment, Storage or Disposal Facility (TSD)	Ammonia	QBM
TA-54 Area G	54-G-2			Arsenic	QBM
TA-54 Area G	54-G-3			Cadmium	QBM
TA-54 Area G	54-G-4			Chemical Oxygen Demand	QBM
TA-54 Area L	54-L-1			Cyanide	QBM
TA-54 RANT	54-RANT-1			Lead	QBM
				Magnesium	QBM
				Mercury	QBM
				Selenium	QBM
				Silver	QBM
TA-60 MRF	60-MRF-1	N	Scrap Recycling	Aluminum	QBM
				Chemical Oxygen Demand	QBM
				Copper	QBM
				Iron	QBM
				Lead	QBM
				Total Suspended Solids	QBM
				Zinc	QBM
TA-3-22 Power & Steam Plant	3-PSP-1	O	Steam Electric Power	Iron	QBM
	3-PSP-5				
	3-PSP-8				

ATTACHMENT 7 – REFERENCES AND GUIDANCE DOCUMENTS

- 40 CFR 122, *EPA Administered Permit Programs*
- 40 CFR 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants.*
- Clean Water Act, Title 33 U.S.C. 1251
- DOE O 414.1C, *Quality Assurance*
- DOE Order 450.1, *Environmental Protection Program*
- DOE Order 5400.5, *Radiation Protection of Public and Environment*
- EPA QA/G-4, *Guidance for the Data Quality Objectives Process*

LANL Documents:

- P322-4, *Laboratory Performance, Feedback, and Improvement*
- P328-3, *Management Assessments*
- P328-4, *Management Observation and Verification*
- P330-6, *Nonconformance Reporting*
- P330-8, *Inspection and Test for Acceptance*
- P340, *Conduct of Engineering*
- P341, *Engineering Process Manual*
- P401, *Procedure to Identify, Communicate, and Implement Environmental Requirements*
- P407, *Water Quality*
- P840-1, *Procurement Quality*

ENV Documents:

- ENV-DO-QP-105, *Preparation, Review, and Approval of Procedures*
- ENV-DO-QP-106, *Document Control*
- ENV-DO-QP-113, *Tracking Performance Feedback and Actions*
- ENV-DO-QP-115, *Personnel Training*
- ENV-CP-QP-022, *MSGP Storm Water Corrective Actions*
- ENV-CP-QP-044, *Preparing Storm Water Discharge Monitoring Reports (MDNRs) for NPDES MSGP*
- ENV-CP-QP-047, *Inspecting Storm Water Runoff Samplers and Retrieving Samples*
- ENV-CP-QP-048, *Processing MSGP Storm Water Samples*
- ENV-CP-QP-064, *Multi-Sector General Permit Storm Water Visual Inspections*
- ENV-WQH-QP-029, *Creating and Maintaining a Chain of Custody*
- Surface Water Monitoring Plan, October 2001, Rev. 0.0

ENV-RCRA-QP-022.2	
Effective Date: February 28, 2013	Next Review Date: January 28, 2015

Environment, Safety, Health Directorate

Environmental Protection – Water Quality and RCRA Quality Procedure

MSGP Storm Water Corrective Actions

Reviewers:

Name:	Organization:	Signature:	Date:
Melanie Lamb	ENV-QPMO QA Specialist	Signature on file	1/4/13

Derivative Classifier: ☒ **Unclassified**

Name:	Organization:	Signature:	Date:
Catherine Hayes	ENV-RCRA	Signature on file	2/8/13

Approval Signatures:

Subject Matter Expert:	Organization:	Signature:	Date:
Holly Wheeler	ENV-RCRA	Signature on file	1/28/13
Responsible Line Manager:	Organization:	Signature:	Date:
Terrill Lemke	ENV-RCRA Team Lead	Signature on file	2/8/13
Responsible Line Manager:	Organization:	Signature:	Date:
Anthony Grieggs	ENV-RCRA Group Leader	Signature on file	2/28/13

CONTROLLED DOCUMENT

This copy is uncontrolled. The controlled copy can be found on the ENV Division Web page.

Users are responsible for ensuring they work to the latest approved version.

History of Revisions

Document Number *[Include revision number, beginning with Revision 0]*	**Effective Date** *[Document Control Coordinator inserts effective date]*	**Description of Changes** *[List specific changes made since the previous revision]*
0	08/10	New Document.
1	11/10	Incorporated ENV-RCRA-QP-062 *MSGP Routine Inspections* into this document.
2	01/13	Biennial revision, new template implemented.

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1.0 PURPOSE

This procedure is written to provide requirements for identifying, documenting and entering corrective actions into the ENV-RCRA MSGP Corrective Action Report Findings database.

2.0 SCOPE

Requirements set forth in this document apply to Los Alamos National Laboratory industrial facilities covered by the National Pollutant Discharge Elimination System (NPDES) Storm Water Multi-Sector General Permit (MSGP). This "general permit" requires identification, documentation, tracking and reporting of corrective actions in accordance with sections 2.2.1, 3, 4.1.2, 4.2.2, 4.3.2, 5.0, 5.2, 5.4, 6.2.1, 6.2.1.2, 7.2 and Appendices B and I.

2.1 HAZARD REVIEW

The work described in this procedure is office work only and has a **LOW hazard** rating as documented by submittal of a completed *ENV Low Hazard Verification form* to the Quality Assurance Specialist.

3.0 RESPONSIBILITIES

The following personnel require training before implementing this procedure:

- Group and Team Leader
- ENV-RCRA MSGP Storm Water compliance personnel
- Deployed Environmental Professionals (DEPs)
- Other LANL or subcontract personnel identified as being required to conduct storm water assessments as part of their job duties.

In addition to training to this procedure, the following training is also required prior to performing this procedure:

- ENV-RCRA QAPP-MSGP *Quality Assurance Project Plan for the Storm Water Multi-Sector General Permit for Industrial Activities*

The training method for this procedure is "self-study" (required read). For ENV-RCRA staff, this is documented in accordance with ENV-DO-QP-115, *Personnel Training*. Other participating groups may require training documentation pursuant to local procedures.

Actions specified within this procedure, unless preceded with "should" or "may", are to be considered mandatory (i.e., "shall", "will", "must").

3.1 ROLES AND RESPONSIBILITIES

3.1.1 ENV-RCRA MSGP STORM WATER TEAM

ENV-RCRA MSGP Storm Water Team members will be fully knowledgeable of the specific regulatory requirements identified in the 2008 MSGP and are responsible for ensuring compliance with these requirements and entering corrective actions. Team members will evaluate corrective actions that the DEPs enter into the ENV-RCRA MSGP Corrective Action Report Findings database and modify them as needed for quality assurance. This team will also periodically review open corrective actions and follow up with the DEPs, ES&H Managers, or Upper Management, as deemed necessary, to ensure close out of the corrective action. The team members will notify upper management of instances of non-compliance with the permit. A team member may also be responsible for responding to the regulatory authority (EPA) regarding identified storm water issues and/or negotiate settlement of any identified issues.

3.1.2 DEPLOYED ENVIRONMENTAL PROFESSIONALS

DEPs will be fully knowledgeable of the site specific Storm Water Pollution Prevention Plan (SWPPP) and corrective action requirements identified in the MSGP for the facilities they are deployed to. In addition, they shall be appropriately trained to meet the job qualifications identified in the *Quality Assurance for Storm Water Multi-Sector General Permit for Industrial Activities Program* (ENV-RCRA-QAPP-MSGP) and shall be familiar with the regulatory requirements identified in the 2008 MSGP. Further, they shall be familiar with facility operations so that potential pollution discharge sources can be determined and corrective actions can be identified.

The DEPs are responsible for identifying and entering corrective actions observed at their industrial facilities into the ENV-RCRA MSGP Corrective Action Report Findings database. They are also responsible for updating corrective actions in a timely manner that cannot be implemented immediately. They will work with the ES&H Manager and ENV-RCRA storm water personnel to ensure identified corrective actions are implemented by overseeing repairs and/or improvements or instituting additional controls. If it is determined that corrective actions are necessary following an assessment, any modification to the control measures must be made before the next storm event if possible, or as soon as practicable following that storm event.

NOTE: These time intervals are not grace periods, but are schedules considered reasonable for documenting your finding(s) and for making repairs and improvements. They are included in the MSGP Permit to ensure that the conditions prompting the need for these repairs and improvements are not allowed to persist indefinitely (see Section 3.3 of the 2008 MSGP). In no instance will the corrective action remain open indefinitely.

3.1.3 ENV-RCRA STORM WATER TEAM LEADER

The ENV-RCRA Storm Water Team Leader is responsible for compliance oversight relative to the 2008 MSGP. The Team Leader will ensure costs needed to implement the regulatory requirements identified in the 2008 MSGP are identified and environmental risks are assessed. Upper management will be notified of these costs or environmental risks, as deemed necessary. In the event there is a dispute regarding the regulatory requirements contained in the MSGP, the Team Leader will make the final determination of the required action. The Team Leader will notify upper management of instances of non-compliance with the permit.

3.1.4 ENV-RCRA GROUP LEADER

The ENV-RCRA Group Leader or designee is responsible for ensuring there is adequate funding to implement the regulatory requirements identified in the 2008 MSGP. The Group Leader also acts as the duly authorized signatory that certifies the reports. The Group Leader will notify upper management of instances of non-compliance with the permit or other identified environmental risk.

3.1.5 ES&H MANAGER

The ES&H manager shall identify funding for their industrial facilities to ensure compliance with the 2008 MSGP. The ES&H Manager is also responsible for ensuring that industrial facilities are complying with the 2008 MSGP permit and notifying upper management of instances of non-compliance with the permit or other identified environmental risk.

3.1.6 FACILITIES OPERATIONS DIRECTOR

The Facilities Operations Director (FOD) provides organizational leadership to ensure that all facility and programmatic activities under their authority are performed in compliance with the 2008 MSGP. The FOD is also responsible for establishing an environmental compliance envelope. It is the FOD's responsibility to maintain trained and qualified Environmental Professionals and Waste Management Coordinators on staff.

3.1.7 COMPUTER PROGRAMMER

Maintains and updates the ENV-RCRA MSGP Corrective Action Report Findings database as requested by MSGP storm water personnel.

3.2 PREREQUISITES

In addition to training to this procedure, the following training is also required prior to performing this procedure:

- *ENV-RCRA QAPP-MSGP, Quality Assurance Project Plan for the Storm water Multi-Sector General Permit for Industrial Activities Program*

4.0 DOCUMENT CONTROL/RECORDS MANAGEMENT

The following records generated as a result of this procedure are to be submitted to the designated RM-POC in accordance with ENV-DO-QP-110, *Records Management* and filed in project files.

- MSGP Comprehensive Site Inspection Annual Report
- Completed Routine Inspection Forms
- Electronic records within the ENV-RCRA MSGP Corrective Action Report Findings database.
- Copies of automated e-mail notifications

5.0 WORK PROCESSES

5.1 IDENTIFYING CORRECTIVE ACTIONS

If any of the following conditions occur, the DEP or ENV-RCRA storm water team member must review and revise the selection, design, installation, and implementation of control measures to ensure that the condition is eliminated and will not be repeated in the future:

- An unauthorized release or discharge (e.g., spill, leak, or discharge of non-storm water not authorized by the 2008 MSGP);
- You become aware, or EPA determines, that your control measures are not stringent enough for the discharge to meet applicable water quality standards;
- An inspection or evaluation of the facility by an EPA official and/or local or State entity, determines that modification to the control measures are necessary to meet the non-numeric effluent limits in the 2008 MSGP;
- You find in the routine facility inspection, quarterly visual assessment, or comprehensive site inspection that the control measures are not being properly operated and maintained;
- Construction or a change in design, operation, or maintenance at the facility significantly changes the nature of pollutants discharged in storm water from the facility, or significantly increases the quantity of pollutants discharged; or
- The average of four quarterly sampling results exceeds an applicable benchmark. If less than four benchmark samples have been taken, but the results are such that an exceedence of the four quarter average is mathematically certain, (i.e., if the sum of quarterly sample results to date is more than four times the benchmark level) this is considered a benchmark exceedence, triggering this review;
- If effluent limitation guidelines are exceeded at the Asphalt Batch Plant (Sector D); or
- If impaired water quality standards are exceeded.

5.2 ROUTINE INSPECTIONS

Routine inspections shall be conducted by the DEP (or a qualified member if the DEP is not trained and qualified) at all areas of the facility where industrial materials or activities are exposed to storm water, and of all storm water control measures used to comply with the effluent limits contained in the 2008 MSGP. Routine inspections shall be conducted at least quarterly; however, some facilities conduct monthly inspections (as specified in the facility specific SWPPP). Routine inspections shall be conducted during periods when the facility is in operation. A certified copy of completed Routine Inspection Forms shall be maintained in the facility's SWPPP.

At least once each calendar year, the routine facility inspections must be conducted during a period when a storm water discharge (either rain or snow) is occurring. The DEP(s) or storm water personnel from ENV-RCRA are responsible for identifying and entering corrective actions observed during the routine inspections into the ENV-RCRA MSGP Corrective Action Report Findings database. The database is set up to allow access for all identified DEPs associated with a particular FOD if the FOD has more than one DEP. Contact a member of the ENV-RCRA storm water team if you do not have access to this database and the FOD has assigned you responsibility for MSGP corrective actions.

NOTE: If the industrial facility is inactive and unstaffed and there are no industrial materials or activities exposed to storm water, routine inspections may not be required. A determination of whether a facility is inactive or unstaffed shall be made in coordination with storm water personnel from ENV-RCRA as there are specific documentation and certification requirements that have to be met prior to discontinuing routine inspections.

5.3 COMPREHENSIVE INSPECTIONS

Qualified ENV-RCRA storm water personnel will conduct one comprehensive inspection of all industrial facilities and those that meet the "no exposure" criteria subject to the 2008 MSGP before September 29th of each year. At least one member of the facility's storm water pollution prevention team shall participate in this inspection. This is usually the DEP.

This inspection must cover all areas of the industrial facility affected by the requirements in the 2008 MSGP including the areas identified in the SWPPP as potential pollutant sources where industrial material or activities are exposed to storm water, areas where control measures are used to comply with the effluent limits, and areas where spills and leaks have occurred in the past 3 years. The inspector must include review of the monitoring data (analytical results from benchmark and impaired waters and visual assessments) collected that calendar year as part of the comprehensive inspection. Inspectors must examine the following at a minimum:

- Industrial materials, residue, or trash that may have or could come into contact with storm water;
- Leaks or spills from industrial equipment, drums, tanks, and other containers;

- Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site;
- Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas; and
- Control measures needing replacement, maintenance, or repair.
- Storm water controls measures required by the 2008 MSGP must be observed to ensure that they are functioning correctly.

NOTE: The annual comprehensive site inspection may also be used as one of the routine inspections, as long as all components of both types of inspections are included.

ENV-RCRA will then enter all identified corrective actions into the ENV-RCRA MSGP Corrective Action Report Findings database. It is the responsibility of the DEP to update the database to reflect updates to these corrective actions.

Information compiled during the comprehensive inspection is used to complete the Annual Report. This report shall be submitted to EPA (postmarked) within 45 days of the last facility inspection completed in September of each year. For example, if the last facility was inspected (as part of the comprehensive site inspection) on September 22, the report shall be postmarked before or on November 6th. A complete certified copy of the Annual Report shall be maintained in the facility's SWPPP.

5.4 SPILLS

All leaks or spills shall be cleaned up immediately and entered into the ENV-RCRA MSGP Corrective Action Report Findings database. This can be done by either the DEP or an ENV-RCRA MSGP storm water team member. If the spill is immediately cleaned up, and controls are put in place to prevent further leakage, the corrective action can be closed.

5.5 ALLOWABLE NON-STORM WATER DISCHARGES

The following are allowable non-storm water discharges authorized by the 2008 MSGP:

- Discharges from fire-fighting activities;
- Fire hydrant flushing;
- Potable water, including water line flushings;
- Uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids;
- Irrigation drainage;
- Landscape watering provided all pesticides, herbicides, and fertilizer have been applied in accordance with the approved labeling;
- Pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous material have occurred (unless all spilled material has been removed);

- Routine external building washdown that does not use detergents; and
- Uncontaminated ground water or spring water.

Any person authorized to conduct work at LANL can identify a potential storm water issue. If this occurs, they should contact the DEP or an ENV-RCRA MSGP storm water team member who will determine if a corrective action is needed.

5.6 ENTERING CORRECTIVE ACTIONS

To enter a corrective action into the ENV-RCRA MSGP Corrective Action Report Findings database, perform the following steps:

NOTE: Be clear and concise, use correct grammar and punctuation, and correct any spelling errors. This information will be used to populate a report that will be submitted to the EPA. Therefore, it is critical that all information entered into the ENV-RCRA MSGP Corrective Action Report Findings database is correct and meets these criteria.

Step	Action
1	From this web page: http://int.lanl.gov/environment/water/guidance/swmgp.shtml, under the heading "Compliance Tools". Click on the link "MSGP Corrective Action Report Findings Database" Click on "Enter New Corrective Action."
2	Under the "Corrective Action Header" tab, enter the following: • Facility Name by clicking on the "List" tab and selecting a facility. • Date Problem was Identified (mm/dd/yyyy) • Date of Notification to ENV-RCRA (mm/dd/yyyy) • FOD Responsible for CA (Name & Org) by clicking in the box. FOD designations (for example "STO") and the associated name will come up. Just select the appropriate FOD. **NOTE:** Contact the MSGP Project Leader at 667-1312 or hbensen@lanl.gov if the FOD name or organization is incorrect, so this can be corrected. • Describe Specific Evaluation Location (for example "Northeast corner of Building TA-3-66") • Inspector Z-Number by clicking in the box, which will populate it with your Z number. In most instances, the DEP should be identified as the inspector. Note: If you are entering the CA and are not the DEP, you will have to enter the DEP's Z number or they will not have the ability to update the corrective action. Once all of the above information is entered correctly, click "Save" and go

	to Step 3. All boxes identified with a red asterisk are "required fields" and shall be filled out. Note: The system will automatically assign a Corrective Action Report ID number.
3	Click "Go To Corrective Action Details" in the middle of the screen. Under the "Corrective Action Details" tab, enter the following: • Identify the condition triggering the need for this review by clicking on the "List" tab and selecting an option or selecting "Other" and entering a description of the condition. • Briefly describe the nature of the problem identified during the inspection (e.g., erosion, damage to a BMP, trash, spill, etc.) and the specific evaluation location. **NOTE:** Spills or other emergency situations may identify the need for a corrective action that was not identified during an inspection. • How the problem was identified by clicking on the "List" tab and selecting an option or selecting "Other" and entering a description of the problem. • Description of the corrective action taken, or to be taken, to eliminate or further investigate the problem (e.g., describe modifications or repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, the basis for that determination. • Did/will the corrective action require modification of your SWPPP. Type in "Y" for yes and "N" for no. • Date Corrective action was initiated (mm/dd/yyyy) • Date corrective action was completed **OR** expected completion date (mm/dd/yyyy) **NOTE:** If the corrective action has not been completed, enter an expected completion date. Do not put a date in both locations. If the corrective action has not been completed, provide the status of the corrective action and describe any remaining steps (including timeframes associated with each step) necessary to complete the corrective action. **NOTE:** This should only be filled out if the corrective action has not been completed. If the corrective action has been completed, enter "N/A." Make sure to hit the "save" tab in the bottom right hand corner so the corrective action information is retained. If you want to enter more corrective actions, go back to the "Corrective Action Header" tab and press the "Enter New Corrective Action" button in the lower left hand corner of the screen (see step #2). Hitting the "Exit" button will cause you to exit from the system.

	All boxes identified with a red asterisk are "required fields" and shall be filled out. If a date is not included or identified as an expected completion date, ENV-RCRA storm water compliance personnel will enter a completion date of 30 days after the corrective action was identified.

5.7 UPDATING CORRECTIVE ACTIONS

To update a corrective action in the ENV-RCRA MSGP Corrective Action Report Findings database, perform the following steps:

Step	Action
1	From this web page: http://int.lanl.gov/environment/water/guidance/swmgp.shtml, under the heading "Compliance Tools". Click on the link "MSGP Corrective Action Report Findings Database" to access the database and tab down to the corrective action number you want to edit. Click on "Edit."
2	Navigate to the blank that you will be changing and input the updated information. It is anticipated that most changes will occur relative to updating the status of corrective actions. Save all changes to the information. Remember, you should only have a date under "Date corrective action completed **OR** the "expected to be completion," but not both.

5.8 VALIDATING CORRECTIVE ACTIONS

ENV-RCRA storm water personnel will periodically validate the information contained in the ENV-RCRA MSGP Corrective Action Report Findings database. To validate a corrective action in the ENV-RCRA MSGP Corrective Action Report Findings database, perform the following steps:

Step	Action
1	From this web page: http://int.lanl.gov/environment/water/guidance/swmgp.shtml, under the heading "Compliance Tools". Click on the link "MSGP Corrective Action Report Findings Database" to access the database.

2	Check all entered fields for a corrective action to ensure that all information is clear, correct, and concise. If not, correct the information by navigating to the information that needs to be changed and making the change. Save all changes to the information. All information shall be validated before running the final annual report.
3	For ENV-RCRA storm water personnel only, under "status" select "void" if the corrective action is a repeat of a previous corrective action or if it is determined not to be a corrective action. This will delete the corrective action from the annual report.

5.9 INSTITUTIONAL PERFORMANCE FEEDBACK AND IMPROVEMENT TRACKING SYSTEM (PFITS)

PFITS is the institutional performance and tracking system for identified issues. A corrective action that meets any of the following criteria will be entered into the PFITS system, as deemed necessary.

- Corrective action was not completed by the expected completion date entered into the database.
- No action was taken to remedy an identified issue with a control measure within 14 days of discovery or before the next storm event or as soon as practicable following that storm event (Section 3.3 of the 2008 MSGP).
- Repeat corrective actions or trends identified by ENV-RCRA MSGP storm water personnel.
- Conditions requiring immediate action, where failure to take action would result in pollutants being released to water of the state or an immediate non-compliance with the 2008 MSGP.
- Violations identified by the regulatory authority.
- Other issues as deemed necessary by MSGP storm water personnel.

Once every month, ENV-RCRA storm water personnel will evaluate a summary of open corrective actions in the ENV-RCRA MSGP Corrective Action Report Findings database and using the above criteria will determine which corrective actions, if any, should be transferred into PFITS. When the monthly notification of outstanding corrective actions is sent out, evaluate whether any of the outstanding corrective actions meet the above conditions. Send those that do to the Environmental Protection Division's Improvement Management Coordinator (IMC) so that she can enter the information into PFITS. The summary report will contain the following information, at a minimum:

- Date the corrective action was identified;
- Person that identified the corrective action;

- A description of the nature of the problem identified and what needs to be done to address the corrective action.
- Whether the corrective action was identified internal to LANL or External to LANL.

5.10 NOTIFICATIONS FOR NEW AND OVERDUE CORRECTIVE ACTIONS

When a new corrective action is entered into the ENV-RCRA MSGP Corrective Action Report Findings database, the FOD, ESH&Q Manager, Operations Manager, inspector (usually the DEP) and ENV-RCRA MSGP storm water personnel are notified automatically by e-mail (unless the corrective action is closed the same day it is entered). This will assist the FOD, ESH& Q Managers, Operations Managers and the DEPs with keeping track of new corrective actions.

An automatic e-mail is sent the first of each month notifying the FOD, ESH&Q Manager, Operations Manager and DEPs of all overdue corrective actions for their industrial facilities. The Environmental Protection Division Leader and ENV-RCRA Group Leader receive a web link that contains a bar graph showing corrective actions 30 to 60 days overdue, 60 to 90 days overdue, 90 days to 1 year overdue, and those greater than a year overdue. In addition, they receive a link with summary information on each corrective action overdue sorted by FOD.

6.0 REFERENCES

- Federal Register: *Final National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Industrial Activities.* Federal Register: September 29, 2008, Volume 73, Number 189.
- P300, *Integrated Work Management*
- P315, *Conduct of Operations Manual*
- PD103, *Worker Safety and Health Policy*
- SD100, *Integrated Safety Management System Description Document with Embedded 10 CFR 851 Worker Safety and Health Program*
- P101-18, *Procedure for Pause/Stop Work*
- PD410, *Los Alamos National Laboratory Environmental ALARA Program*
- P121, *Radiation Protection*
- ENV-DO QP-106, *Document Control*
- ENV-DO-QP-115, *Personnel Training*
- ENV-DO-QP-104, *Work Safety Review*

In addition to these documents, please read any site specific requirements before proceeding with work.

7.0 DEFINITIONS

Best Management Practice (BMP): Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "waters of the United States." BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. (*40 CFR Part 122.2)*

Control Measure: Any BMP or other method (including effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the United States.

CA: Corrective Action

DEP: Deployed Environmental Professional

EPA: Environmental Protection Agency

FOD: Facility Operations Director

MSGP: Multi-Sector General Permit

SWPPP: Storm Water Pollution Prevention Plan

8.0 ATTACHMENTS

Attachment 1- Annual Reporting Form

Attachment 2- NPDES Multi-Sector General Permit Routine Inspection Form

Click here for "Required Read" credit.

ATTACHMENT 1- ANNUAL REPORTING FORM

NPDES Permit Tracking No.:

EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

Annual Reporting Form

A. GENERAL INFORMATION

1. Facility Name:

2. NPDES Permit Tracking No.:

3. Facility Physical Address:

a. Street:

b. City: c. State: d. Zip Code: -

4. Lead Inspectors Name: Title:

Additional Inspectors Name(s):

5. Contact Person: Title:

Phone: - - Ext. E-mail:

6. Inspection Date: / /

B. GENERAL INSPECTION FINDINGS

1. As part of this comprehensive site inspection, did you inspect all potential pollutant sources, including areas where industrial activity may be exposed to stormwater?
☐ YES ☐ NO

If NO, describe why not:

NOTE: *Complete Section C of this form for each industrial activity area inspected and included in your SWPPP or as newly identified in B.2 or B.3 below where pollutants may be exposed to stormwater.*

2. Did this inspection identify any stormwater or non-stormwater outfalls not previously identified in your SWPPP? ☐ YES ☐ NO

If YES, for each location, describe the sources of those stormwater and non-stormwater discharges and any associated control measures in place:

NPDES Permit Tracking No.:

3. Did this inspection identify any sources of stormwater or non-stormwater discharges not previously identified in your SWPPP? ☐ YES ☐ NO

If YES, describe these sources of stormwater or non-stormwater pollutants expected to be present in these discharges, and any control measures in place:

4. Did you review stormwater monitoring data as part of this inspection to identify potential pollutant hot spots? ☐ YES ☐ NO ☐ NA, no monitoring performed

If YES, summarize the findings of that review and describe any additional inspection activities resulting from this review:

5. Describe any evidence of pollutants entering the drainage system or discharging to surface waters, and the condition of and around outfalls, including flow dissipation measures to prevent scouring:

6. Have you taken or do you plan to take any corrective actions, as specified in Part 3 of the permit, since your last annual report submission (or since you received authorization to discharge under this permit if this is your first annual report), including any corrective actions identified as a result of this annual comprehensive site inspection?
☐ YES ☐ NO

If YES, how many conditions requiring review for correction action as specified in Parts 3.1 and 3.2 were addressed by these corrective actions? ☐☐

NOTE: *Complete the attached Corrective Action Form (Section D) for each condition identified, including any conditions identified as a result of this comprehensive stormwater inspection.*

NPDES Permit Tracking No.:

C. INDUSTRIAL ACTIVITY AREA SPECIFIC FINDINGS

Complete one block for each industrial activity area where pollutants may be exposed to stormwater. Copy this page for additional industrial activity areas.

In reviewing each area, you should consider:

- Industrial materials, residue, or trash that may have or could come into contact with stormwater;
- Leaks or spills from industrial equipment, drums, tanks, and other containers;
- Offsite tracking of industrial or waste materials from areas of no exposure to exposed areas; and
- Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas.

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO

3. Have any control measures failed and require replacement? ☐ YES ☐ NO

4. Are any additional/revised control measures necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO

3. Have any control measures failed and require replacement? ☐ YES ☐ NO

4. Are any additional/revised c necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA _____:

Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO

3. Have any control measures failed and require replacement? ☐ YES ☐ NO

4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

NPDES Permit Tracking No.:

NOTE: *Copy this page and attach additional pages as necessary*

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO
3. Have any control measures failed and require replacement? ☐ YES ☐ NO
4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO
3. Have any control measures failed and require replacement? ☐ YES ☐ NO
4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO
3. Have any control measures failed and require replacement? ☐ YES ☐ NO
4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

NPDES Permit Tracking No.:

D. CORRECTIVE ACTIONS

Complete this page for each specific condition requiring a corrective action or a review determining that no corrective action is needed. Copy this page for additional corrective actions or reviews.

Include both corrective actions that have been initiated or completed since the last annual report, and future corrective actions needed to address problems identified in this comprehensive stormwater inspection. Include an update on any outstanding corrective actions that had not been completed at the time of your previous annual report.

1. Corrective Action # ☐☐ of ☐☐ for this reporting period.

2. Is this corrective action:
   - ☐ An update on a corrective action from a previous annual report; or
   - ☐ A new corrective action?

3. Identify the condition(s) triggering the need for this review:
   - ☐ Unauthorized release or discharge
   - ☐ Numeric effluent limitation exceedance
   - ☐ Control measures inadequate to meet applicable water quality standards
   - ☐ Control measures inadequate to meet non-numeric effluent limitations
   - ☐ Control measures not properly operated or maintained
   - ☐ Change in facility operations necessitated change in control measures
   - ☐ Average benchmark value exceedance
   - ☐ Other (describe): _____

4. Briefly describe the nature of the problem identified:

5. Date problem identified: ☐☐/☐☐/☐☐☐☐

6. How problem was identified:
   - ☐ Comprehensive site inspection
   - ☐ Quarterly visual assessment
   - ☐ Routine facility inspection
   - ☐ Benchmark monitoring
   - ☐ Notification by EPA or State or local authorities
   - ☐ Other (describe): _____

7. Description of corrective action(s) taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications or repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, basis for that determination:

8. Did/will this corrective action require modification of your SWPPP? ☐ YES ☐ NO

9. Date corrective action initiated: ☐☐/☐☐/☐☐☐☐

10. Date correction action completed: ☐☐/☐☐/☐☐☐☐ or expected to be completed: ☐☐/☐☐/☐☐☐☐

11. If corrective action not yet completed, provide the status of corrective action at the time of the comprehensive site inspection and describe any remaining steps (including timeframes associated with each step) necessary to complete corrective action:

NPDES Permit Tracking No.:

E. ANNUAL REPORT CERTIFICATION

1. Compliance Certification

Do you certify that your annual inspection has met the requirements of Part 4.2 of the permit, and that, based upon the results of this inspection, to the best of your knowledge, you are in compliance with the permit? ☐ YES ☐ NO

If NO, summarize why you are not in compliance with the permit:

2. Annual Report Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Authorized Representative Printed Name: Title:

Signature: Date Signed:

ATTACHMENT 2- NPDES MULTI-SECTOR GENERAL PERMIT ROUTINE INSPECTION FORM

Los Alamos National Laboratory
ENV-RCRA

NPDES Multi-Sector General Permit Routine Inspection Form
(rev. 03/2009) Page 1 of __ (use additional sheets if necessary)

Name of Facility:	**Responsible FOD (Name & Organization):**	
Qualified Inspector(s): **Others Present:**	**Inspection type:** ☐ Quarterly ☐ Other	**Date of inspection (MM/DD/YYYY):** **Time of inspection:**

Weather: ❑ Clear ❑Cloudy ❑ Rain ❑ Sleet ❑ Fog ❑ Snow ❑ High Winds ❑ Other:
Temperature: ° F
Is Inspection Being Conducted During a Storm Water Discharge? ❑Yes ❑No

#	Structural Control Measures (BMP)s	Location	Operating Effectively (Yes or No)?	If No, Need to Maintain (M), Repair (R) or Replace (RP)?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12					

Were additional BMPs or Control Measures implemented? ☐ Yes ☐ No **Describe:**

Were previously identified conditions corrected before the next anticipated storm event? ☐ Yes ☐ No **If No, describe reason:**

Area/Activity (Areas of Industrial Materials or Activities Exposed to Storm Water)	Inspected?	Controls Adequate?	Corrective Action Needed and Notes (List area letter with comments below)
A. Material loading/unloading & storage areas			
B. Equipment operations & maintenance areas			
C. Fueling Areas			
D. Outdoor vehicle & equipment washing areas			
E. Waste Handling & disposal areas			
F. Erodible areas / construction			
G. Non-storm water / illicit connections			
H. Salt storage piles or pile containing salt			
I. Dust generation & vehicle tracking			

Are the SWPP Plan maintenance, schedules and procedures being implemented at the facility? ☐ Yes ☐ No

Were any Corrective Actions initiated or completed? ☐ Yes ☐ No **Describe:**

Are there any conditions requiring Corrective Action? ☐ Yes ☐ No **If Yes, List Number of Corrective Actions Required** _____
(Note – need a Corrective Action Form for each listed)

Los Alamos National Laboratory
ENV-RCRA

NPDES Multi-Sector General Permit Inspection Form
(rev. 03/2009) Certification Sheet

Non-Compliance

Describe any incidents of non-compliance and/or need for corrective action observed and not described above:

Additional Control Measures

Describe any additional control measures needed to comply with the permit requirements:

Notes

Use this space for any additional notes or observations from the inspection:

Inspector's Signature and date:_____

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print name and title: _____

Signature:_____ **Date:**_____

EPC-CP-QP-064	Revision: 0	
Effective Date: 10/04/2017	Next Review Date: 10/04/2020	

Environment, Safety, and Health Directorate

Environmental Protection and Compliance-Compliance Programs

Quality Procedure

MSGP Stormwater Visual Assessments

Document Owner:

Name:	Organization:	Signature:	Date:
Holly L. Wheeler	EPC-CP	Signature on File	10-2-17

Derivative Classifier: ☐ **Unclassified or** ☒ **DUSA ENVPRO**

Name:	Organization:	Signature:	Date:
Ellena I. Martinez	EPC-CP	Signature on File	10-2-17

Approval Signatures:

Subject Matter Expert:	Organization:	Signature:	Date:
Holly L. Wheeler	EPC-CP	Signature on File	10-2-17
Responsible Line Manager:	Organization:	Signature:	Date:
Terrill W. Lemke	EPC-CP Team Leader	Signature on File	10-4-17
Responsible Line Manager:	Organization:	Signature:	Date:
Michael T. Saladen	EPC-CP Acting Group Leader	Signature on File	10-4-17

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To document a required read, Login to UTrain, and go to the Advanced Search.

REVISION HISTORY

Document Number and Revision *[Include revision number, beginning with Revision 0]*	**Effective Date** *[Document Control Coordinator inserts effective date]*	**Description of Changes** *[List specific changes made since the previous revision]*
ENV-RCRA-QP-064, R0	7/09	New document *MSGP Storm Water Visual Inspection*s.
ENV-RCRA -QP-064, R1	3/10	Clarifications and added attachments.
ENV-RCRA -QP-064, R2	2/12	Biennial review/revision
EPC-CP-QP-064, R0	10/04/2017	This document replaces ENV-RCRA-QP-064 R2. Converted into new format, and new organization name, clarified steps, updated attachments.

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1.0 INTRODUCTION

Los Alamos National Security, LLC (LANS) through Environmental Protection and Compliance-Compliance Programs (EPC-CP) conducts stormwater monitoring activities required pursuant to the National Pollutant Discharge Elimination System (NPDES), Multi-Sector General Permit (MSGP) at Los Alamos National Laboratory (LANL). The MSGP requires LANL to monitor stormwater runoff from industrial sites relative to potential pollutants.

1.1 Purpose

This procedure describes the process for conducting visual assessments of stormwater from outfall locations monitored under the MSGP for industrial facilities at LANL.

Assessments conducted under this procedure should be documented using the Maintenance Connection Express™ (MC Express) web application. (In the event of electronic hardware or web application failure, personnel may use a printed hard copy to conduct inspection and sample retrieval.)

1.2 Scope

Requirements set forth in this document apply to Los Alamos National Laboratory industrial facilities covered by the MSGP. These facilities include, a warehouse, several metal fabrication areas/shops, a heavy equipment yard, an asphalt batch plant, roads and grounds, a foundry, a power plant, a material recycling facility, a carpenter shop, and several hazardous waste treatment, storage or disposal (TSD) facilities. Inspection waivers may be granted by EPC-CP for adverse weather conditions and unstaffed or inactive sites.

At least once each MSGP monitoring quarter a stormwater sample must be collected from each discharge point covered by the MSGP and site specific SWPPP and visually inspected for water quality characteristics. Stormwater samples can be collected with an automated sampler, single stage sampler, or by taking a grab sample.

1.3 Applicability

This procedure applies to the EPC-CP technical staff and subcontractor personnel (as applicable) who conduct stormwater visual assessments during or after measurable storm events at MSGP outfalls.

Note: *A measurable storm event is identified as one what results in an actual discharge from your site that follows the preceding measurable storm event by at least 72 hours (3 days)*.

2.0 PRECAUTIONS AND LIMITATIONS

Hazards in the work described in this procedure are controlled through site specific Integrated Work Documents (IWDs). The hazard level for the activities described in this procedure is **low**, however the cumulative hazard rating for activities described in the IWD is **moderate**.

Assessments may be discontinued during periods or conditions that make sites dangerous for worker safety or prevent personnel from safely accessing sites (e.g., weather-related events such as flash floods, flooding, lightning, wildfires, hail, icy roads, deep snow, or LANL operations such as firing shots or burns).

Click the "Save" bar after all entries for a task line have been completed and before proceeding to the next question. Failure to "Save" results in lost data entries.

Some terminology varies between the MC Express software and the Maintenance Connection desktop software.

- The "Reading" field in MC Express is the same field as "Reading Final" in Maintenance Connection desktop and "Meas." on a hard copy (printed) work order.
- The "Complete" option in MC Express is the same as a "Yes" answer; the "Failed" option in MC Express is the same as a "No" answer. Maintenance Connection desktop and hard copy (printed) work orders use "Yes" and "No" terminology.

Throughout this procedure the field inspector should document comments and notations in the "Reading" field of the associated task line. Any additional comments not documented in a "Reading" field can be entered in the "Comments" field of the same task line. If the inspector needs more space, additional comments can be entered in the "Labor Report Update" field (see Section 4.3) when the work order is updated to "Complete" status.

3.0 PREREQUISITE ACTIONS

3.1 Planning and Coordination

1. Schedule work to be completed by the target date appearing on the work order(s) or as requested by the MSGP Program Lead if a form is not issued.
2. Inform (e.g., by e-mail) Facility contacts, as specified in the IWD, of the schedule for inspection work and locations up to a week (preferred) before but no later than the day before (for minor changes) to be added to the appropriate plan of the day.

   Note: For some Facility Operations Divisions (FODs) like the Utilities and Institutional Facilities FOD, MSGP stormwater monitoring activities are on a standing plan of the day. However, this must be requested each year at the beginning of the monitoring season.
3. The IWD Part II (2101 Form) addresses specific requirements and training for FODs.
4. Obtain any necessary additional paperwork before conducting this work, including IWD's, and excavation permits (as necessary).
5. Gather the required equipment (see section below) for the work to be done.
6. Using the Safari web browser on a tablet or notebook style computer, navigate to http://express.maintenanceconnection.com and select English from the available dropdown menu.

7. Log into the MC Express application using your login credentials. Contact the MSGP Data Management Team if MC Express generates any message stating the field inspector does not have access.
8. Confirm that the work order list displayed in the "My Open Work Orders" section matches your sites. If work orders are not displayed, click the "Refresh" bar at the bottom of the page. The page will refresh and any work orders issued since you logged in will be loaded to the application. If the work order lists still do not match, contact the MSGP Data Management Team for clarification.
9. Ensure that field personnel have access to accurate time measurement at the Site. When at the site, the clock time on the ISCO sampler must be set to Mountain Standard Time at all times, with no daylight saving time adjustment.

3.2 Tools and Equipment

Ensure the following equipment is available in the field vehicle:

- Safety glasses with side shields
- Nitrile gloves
- Sturdy hiking boots or steel toed shoes with soles that grip
- Cell phone (only government cell phones with batteries removed are allowed in secure areas)
- Copy of this procedure
- Copy of the Integrated Work Documents (IWDs)
- Copy of the MSGP Sampling and Analysis Plan
- Site Map(s) (as needed)
- Current electronic or paper inspection form EPC-CP-Form-1021, MSGP Stormwater Visual Assessments
- Necessary access and station keys
- Clean replacement sample bottles (clear glass or clear poly)
- Paper Towels

4.0 VISUAL ASSESSMENT OF STORMWATER

1. Take the sample bottle with water out of automated sampler or single stage jar off the ground, or fill a clear sample bottle with a grab sample and wipe off exterior.

   Note: If a grab sample is collected it shall be collected during daylight hours in a wide mouth clear glass bottle or plastic container within 30 minutes of discharge from a storm event.

2. In MC Express, open the work order issued for the current location by clicking on the appropriate line. If needed, use the expand arrow located on the right side of the display to expand the work order detail information. The work order will open in the display to the work order Summary page.

3. Click on the "Tasks" bar to navigate to the work order Tasks page. See MC Express screen shot example in Attachment 1 and a hard copy example in Attachment 2.

4.1 Documenting Sample Information

4. Item 1: Verify the monitoring period by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". Describe the monitoring period (e.g., Apr-May, Jun-Jul, Aug-Sep, Oct-Nov).

   Note: If the discharge collected is from a rain event from the previous monitoring period but the visual assessment is made in the following monitoring period, document monitoring period on the inspection to correspond to the period in which the rain event took place.

CAUTION

Click the "Save" bar after all entries for a task line have been completed and before proceeding to the next question. Failure to "Save" results in lost data entries.

Note: Any additional comments not documented in a "Reading" field can be entered in in the "Comments" field of the same task line. If the inspector needs more space additional comments can be entered in the "Labor Report Update" field.

5. Item 2: Verify the visual assessment is performed on an unfiltered sample and document by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". If the sample was filtered, conduct the visual assessment and document "Filtered sample".

6. Item 3: Verify the date and time stormwater discharge began and document by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes".

   Enter the date and time in the following date formats: MM/DD/YY, or MM-DD-YY. Time must be entered in 24-hr format.

   Note: If the discharge date/time is not available (e.g. precipitation report) when the visual is performed in the field, leave this Task Line incomplete and complete when the information is available.

7. Item 4: Verify the date and time the sample was collected and document by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes".

   Enter the date and time in the following date formats: MM/DD/YY, or MM-DD-YY. Time must be entered in 24-hr format.

Note: If the collection date/time is not available (e.g. precipitation report) when the visual is performed in the field, leave this Task Line incomplete and complete when the information is available.

8. Item 5: Verify the date and time stormwater was visually assessed and document by clicking on the right side of the task line and changing the "Complete" or "Failed" line to "Yes".

   Enter the date and time in the following date formats: MM/DD/YY, or MM-DD-YY. Time must be entered in 24-hr format.

9. Item 6: Verify the nature of the discharge and document by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". Describe the discharge (e.g., rainfall or snowmelt) and the TOTAL amount of precipitation from the event.

   Note: If the total amount of precipitation is not available (e.g., precipitation report) when the visual is performed in the field, leave this Task Line incomplete and complete when the information is available.

10. Item 7: Verify the sample was collected in the first 30 minutes of discharge and document by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes. The field inspector will document the reason a sample could not be collected within the first 30 minutes.

4.2 Assessing Parameters

While conducting the visual examinations, personnel should constantly be attempting to relate any pollutant that is observed in the sample to a pollutant source on the site.

Note if there are any potential sources of pollutants on site. If yes, contact an MSGP representative of EPC-CP and document the following:

- Potential sources;
- Indicate if there are any BMPs on site and evaluate and note effectiveness; and
- If no BMPs, determine if installation could correct future pollutant migration.

11. Item 8: Verify the color of the discharge in the sample container and document by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". Describe the color.

12. Item 9: Verify any odors detected from sample and document by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". Describe the odor (e.g., musty, sewage, sulfur, sour, solvents, petroleum/gas, etc.).

13. Item 10: Verify the clarity of the discharge and document by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". Describe the clarity (e.g., slightly cloudy, cloudy, opaque).

    Clarity can be described as the depth in which you can look into or through water. For example an individual can see through a clear glass of clean water in daylight. Generally the clarity of the water is a good visual indicator of the purity of water. If the water is poor in clarity there is most likely suspended solids throughout the water.

14. Item 11: Verify any floating solids and document by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". Careful examination should determine whether the solids are raw materials (e.g., product used to fabricate something, or ingredients used in a formulation) or waste materials (e.g., shavings, woodchips and sawdust, trash). Describe any floating solids observed.

15. Item 12: Verify any settled solids in the sample and document by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". Describe any settled solids observed (e.g., fine, course).

    Settled solids may be an indicator of unstable ground cover combined with a high intensity stormwater runoff event.

16. Item 13: Verify any suspended solids in the sample and document by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". Describe any settled solids observed (e.g., fine, course).

    Most often suspended solids include fine sediment. This may be an indication of an unstable channel that may have eroding banks. Some water appears to be colored because of relatively coarse particulate material in suspension such as sediment.

17. Item 14: Verify the sample is free of foam and document by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". Gently shake the sample container. Describe any bubbles in or on the surface of the water and the color of the foam.

CAUTION

Contact the EPC-CP Project Leader for MSGP **immediately if it is determined that the foam is caused by a pollutant**. Follow-up action is required within 24 hours.

18. Item 15: Verify the sample is devoid of any oil sheen and document by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". If an oil sheen is present, describe the thickness and consistency (e.g., flecks, globs).

CAUTION

Contact the EPC-CP Project Leader for MSGP **immediately**. Then determine the nature of the discharge (rain, snow, hail), the source of the sheen and if existing BMPs are effective in mitigation of potential pollutants or if a new BMP needs to be installed. Follow-up action is required within 24 hours.

19. Item 16: Verify the discharge is free of any other indicators of stormwater pollution not described in any other task line above and document by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes". Describe any observations.
20. When all task lines have been completed, click the "Back" arrow button in the upper left hand corner to exit the work order Tasks page and return to the work order Summary page.

4.3 Completing the Assessment Form

1. Ensure the inspection form has been filled out completely including information not available during the field inspection (e.g., date/time of discharge, date/time of sample collection, total precipitation amount).
3. Click the checkered flag in the upper right corner of the work order Summary page. MC Express auto-populates the date and time fields.

CAUTION

MC Express automatically changes the work order status to "Closed."

4. Item 17: Click on the expand arrow located on the right side of the "New Status" field and select "Completed" from the available dropdown menu.

   Ensure the "Date" field has the date and time the **form was completed**. The completion date and time may be different from the date and time the visual assessment was performed if precipitation information was added to the form after the on-site field inspection.

   If these fields need to be updated, click the "Date" field to modify it. Make necessary adjustments using the available timestamp application and click "Set" to apply changes.

6. Item 18: The inspector must type in his/her name in the "Labor Report Update" field.

   Any additional notes, observations, or site conditions not documented in a task line "Reading" or "Comments" field can also be documented in the "Labor Report Update" field.

7. Scroll down the page to the "Signature" bar and click the expand arrow on the left side of the bar to open the "Signature" field.

8. Item 19: Capture an electronic signature by drawing with a finger on the tablet screen. The Lead Inspector is certifying that the information submitted is "true, accurate, and complete" by electronically signing the work order.

   Note: If using MC Express on a desktop screen (not a tablet), the mouse must be used to sign electronically.

9. Click on the "Save" bar at the bottom of the page to close the "Signature" field.
10. Click on the "Back" button located in the upper left hand corner to return to the "My Open Work Orders" page.
11. Once you have completed an inspection, click on the Menu button again, and then click the "Logout" bar. Close the browser. All work will automatically upload from the MC Express application to the MC database.

Always log out of MC Express when you have finished work OR if work is interupted.

4.4 Completing the Certification Statement

1. Using the Safari web browser on a desktop computer, navigate to http://www.maintenanceconnection.com. Log into the MainConn desktop application using your login credentials.
2. Click "Open" in the tool bar at the top of the page to open the MainConn module selections. Click on the "Work Orders" module (see Attachment 3).
3. Click on the "Search" tab at the top left of the page and enter the work order number in the "Search Value" field. Click the arrow to the right of the "Search Value" field to open the work order in the right split screen.
4. Click on the "Report" tab at the top of the page and click the "Work Order Statement" sub-tab.
5. Click the Tools drop down menu in the top right corner of the page and select "Print" from the options. The print dialog box will open. Select the print options as appropriate for your local printer.
6. Item 20: Obtain a printed name and title, signature, and date on the certification statement. The visual assessment form must be certified with a signature from a duly authorized representative of the facility as defined in Appendix B of the MSGP Permit, Section B.11.A (e.g., FOD, Operations Manager, DSESH Group Leader, EPC Group Leader). The duly authorized representative of the facility is certifying the information submitted is "true, accurate, and complete" by signing the form.

   EPC-CP will send out completed visual assessment forms at the end of each quarter that will contain a certification statement in the cover memorandum. The duly authorized signatory may sign and date this certification statement rather than the certification line associated with each attached form. However, the memorandum and associated completed forms must remain together.

7. Place the completed and signed visual assessment into the facility SWPPP.

5.0 EVIDENCE OF STORMWATER POLLUTION

If stormwater contamination is identified through visual assessment personnel should attempt to identify the pollutant source. Personnel should evaluate whether or not BMPs have already been implemented and evaluate whether or not these are working correctly or need maintenance. A design change could also be incorporated into the stormwater pollution prevention plan to eliminate or minimize the contaminant source from occurring in the future. Personnel should evaluate whether or not additional BMPs should be implemented in the pollution prevention plan to address the observed contaminant.

A clean up of the site should be conducted if the pollutant source is known and well defined. The FOD, ESH Manager, and MSGP representative of EPC-CP should also be contacted and made aware of the situation.

Corrective actions **MUST** be taken if BMPs are not performing effectively. Refer to EPC-CP-QP-022, *MSGP Stormwater Routine Facility Inspections and Corrective Actions*.

6.0 TRAINING

The following personnel require training before implementing this procedure:

- EPC-CP technical staff and subcontract or other personnel who retrieve stormwater samples and conduct visual assessments at automated or single stage stormwater samplers for the MSGP.

For EPC-CP staff the training method for this procedure is “self-study” (reading). Other participating groups may require training documentation pursuant to local procedures.

Personnel performing this procedure will be familiar with the most current versions of the following procedures and operation manuals:

- EPC-CP MSGP Sampling and Analysis Plan for the current monitoring year

7.0 RECORDS

Records generated by this document and signed by the EPC-CP certifier will be submitted to the EPC-CP Records Management designated point of contact or document manager in accordance with P1020-1, *Laboratory Records Management* and with ADESH-AP-006, *Records Management Plan*.

- EPC-CP-Form-1021, *MSGP Quarterly Visual Assessment*

All other MSGP Quarterly Visual Assessment forms generated are forwarded to the duly authorized representative of each facility for submittal to that facility’s Records Management designated point of contact or document manager.

8.0 DEFINITIONS AND ACRONYMS

See LANL *Definition of Terms*.

8.1 Definitions

Adverse weather conditions – Weather that prohibits collection of samples such as local flooding, high winds, hurricanes, tornadoes, electrical storms, etc. Could also include drought, extended frozen conditions, etc.

Best Management Practices (BMPs) – Schedules of activities, practices, prohibitions of practices, structures, vegetation, maintenance procedures, and other management practices to prevent or reduce pollution. BMPs can also include treatment requirements, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Clarity – Clearness or cleanness of appearance. This includes the visual observation of suspended sediment.

Color – Unpolluted water will be clear and colorless. Color should not be confused with clarity.

Floating solids – Particulate material floating on the surface of the water. Examples include: raw or waste materials and common trash.

Foam – An accumulation of fine frothy bubbles formed in or on the surface of water. A mass of bubbles of air in a matrix of liquid film.

Odor – The property or quality of waters that affects or stimulates the sense of smell. Examples of odors that may be present are burnt oil, petroleum hydrocarbon, sewage, diesel, sulfuric, or detergent odors.

Oil sheen – The presence of rainbow-like colors glistening on the surface of a liquid. The color of oil sheen will vary dependent on thickness and consistency.

Settled solids – Settled particulate material i.e., heavier than water. Examples include sand, gravel, metal turnings, and glass.

Suspended solids – Particulate materials that are floating between the bottom of the sample and the surface of the water.

Unstaffed and Inactive Sites – A facility maintaining certification with the SWPPP that it is inactive and unstaffed and visual examinations are not required.

8.2 Acronyms

See LANL *Acronym Master List*.

EPC-CP	Environmental Protection and Compliance – Compliance Programs
IWD	Integrated Work Document
LANL	Los Alamos National Laboratory
LANS	Los Alamos National Security, LLC
MC Express	Maintenance Connection MC Express web application
MSGP	Multi-Sector General Permit

NPDES	National Pollutant Discharge Elimination System

9.0 REFERENCES

P1020-1, Laboratory Records Management

ADESH-AP-006, Records Management Plan

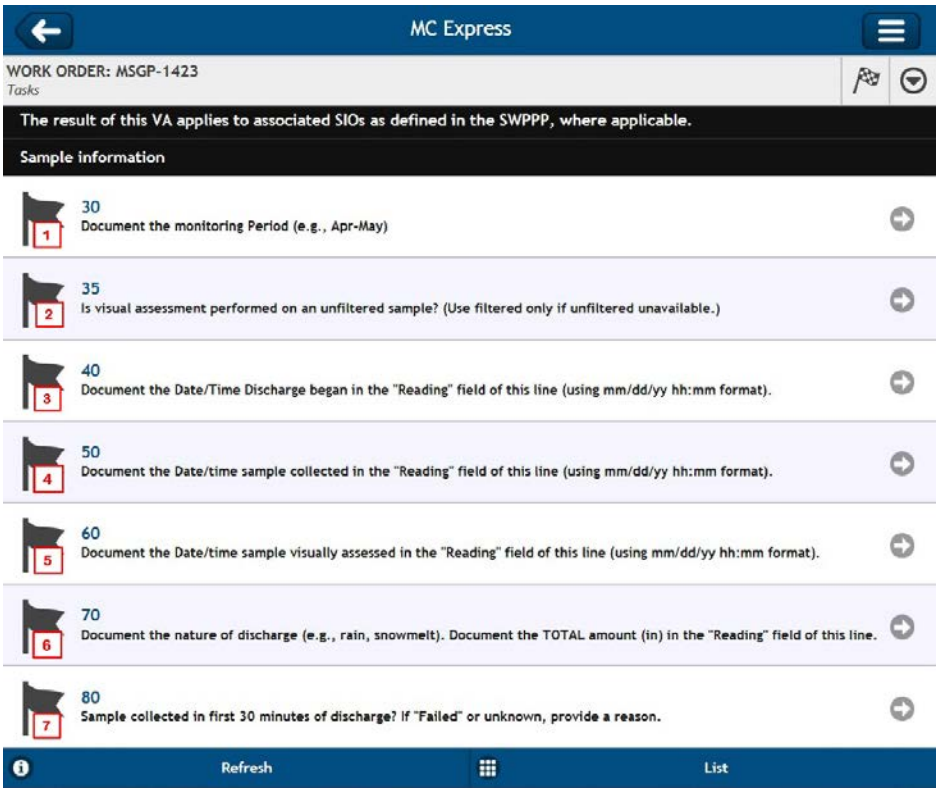
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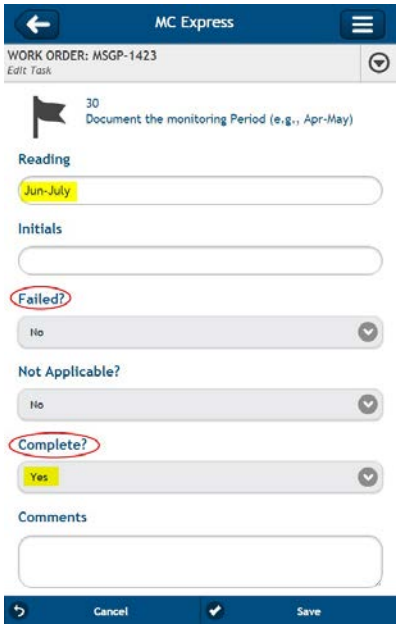
10.0 ATTACHMENTS

Attachment 1: *Screenshot Examples of EPC-CP-Form-1021 in MC Express*
Attachment 2: *Crosswalk of EPC-CP-Form-1021 Hard Copy Format to Electronic Format*
Attachment 3: *Screenshot Examples of Printing from Maintenance Connection*

Attachment 1: Screenshot Examples of EPC-CP-Form-1021 in MC Express

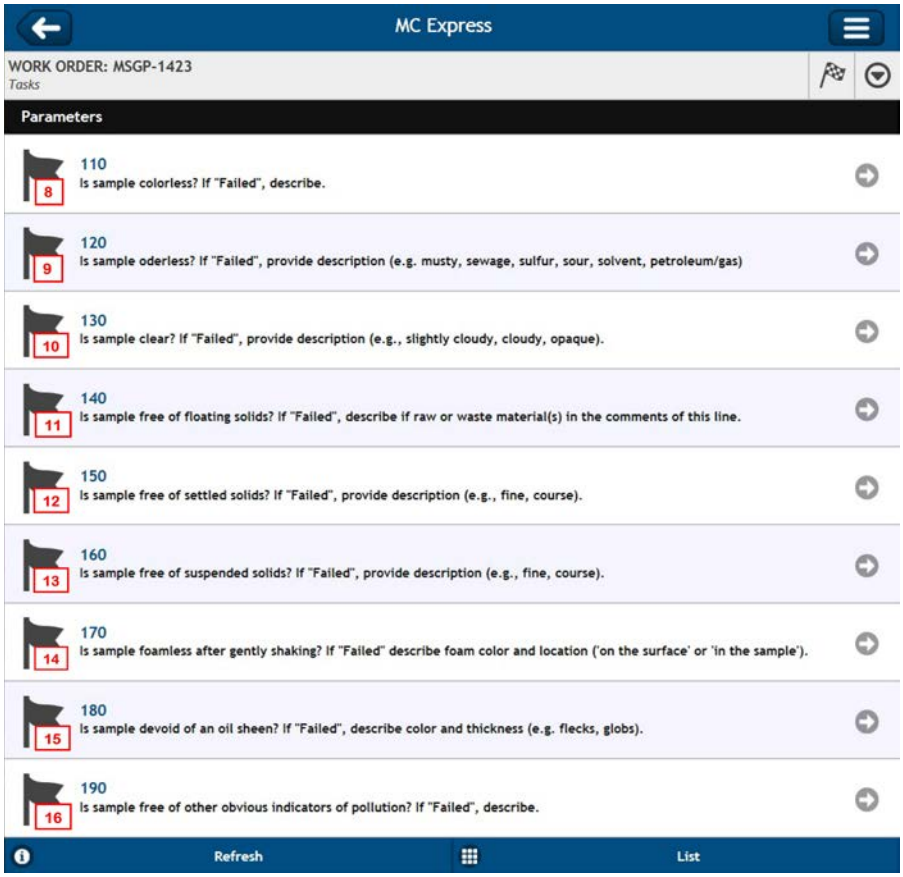
Page 1 of 3

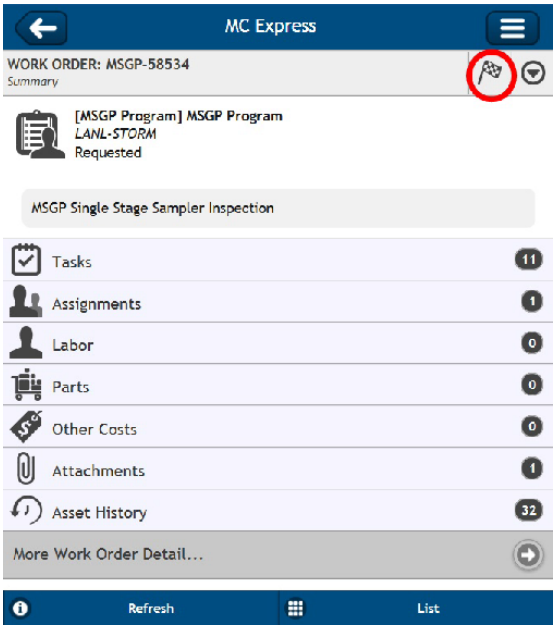




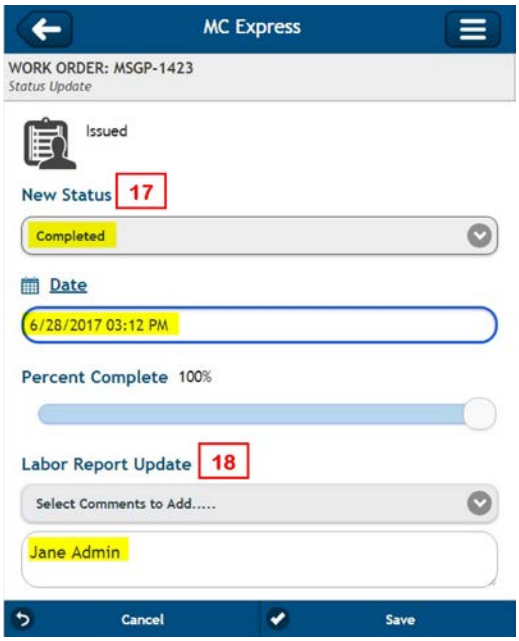
Attachment 1: Screenshot Examples of EPC-CP-Form-1021 in MC Express (cont.)

Page 2 of 3





Attachment 1: Screenshot Examples of EPC-CP-Form-1021 in MC Express (cont.)





Attachment 2: Crosswalk of EPC-CP-Form-1021 Hard Copy Format to Electronic Format

Los Alamos National Lab - ADESH

Work Order MSGP-1423

MSGP Monitoring Stations
Printed 7/12/2017 - 10:57 AM (Duplicate Copy)

Maintenance Details

Requested By: Admin, Jane on 7/11/2017 1:25:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.023)
Last PM: N/A
Reason: Hard Copy MSGP Visual Assessment Example

Target: 12/31/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-3-38 Carpenter Shop
Monitored Outfall (073)
MSGP07302

Contact: Admin, Jane
Phone: 123-4567

Tasks

	#	Description	Meas.	No	N/A	Yes
		The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.				
		Sample information				
1	30	Document the monitoring Period (e.g., Apr-May)		☐	☐	☐
2	35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		☐	☐	☐
3	40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		☐	☐	☐
4	50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		☐	☐	☐
5	60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		☐	☐	☐
6	70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.		☐	☐	☐
7	80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☐
		Parameters				
8	110	Is sample colorless? If "Failed", describe.		☐	☐	☐
9	120	Is sample oderless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		☐	☐	☐
10	130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).		☐	☐	☐
11	140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☐
12	150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).		☐	☐	☐
13	160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, course).		☐	☐	☐
14	170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g.,'on the surface' or 'in the sample').		☐	☐	☐
15	180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		☐	☐	☐
16	190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		☐	☐	☐

Labor Report

17 **Completed:** 6/28/2017 3:23:00 PM

18 **Report:** Jane Admin

19 Jane Admin — Signature / Name; 6/28/2017 — Date; Signature / Name; Date

I confirm the information as recorded is true, accurate and complete.

EPC-CP-Form-1021.1 07/2017

Attachment 2: Crosswalk of EPC-CP-Form-1021 Hard Copy Format to Electronic Format (cont.)

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

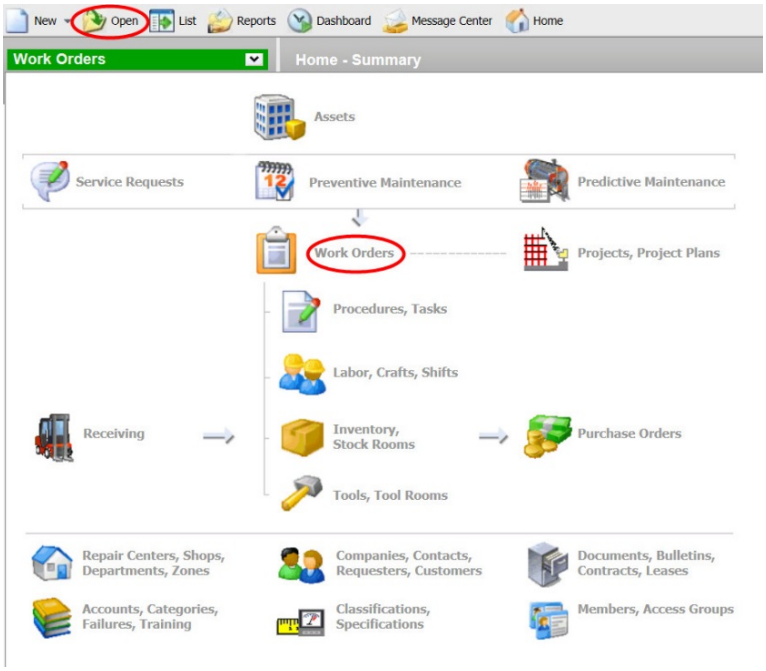
(Signatory must meet definition in Section B.11.A, eg. FOD, Ops Mgr, DSESH Group Leader, EPC Group Leader)

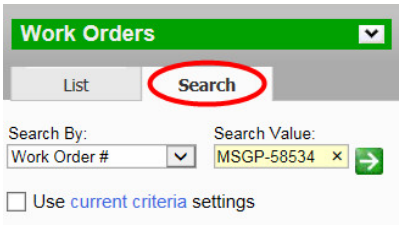
20 Print name and title:_____

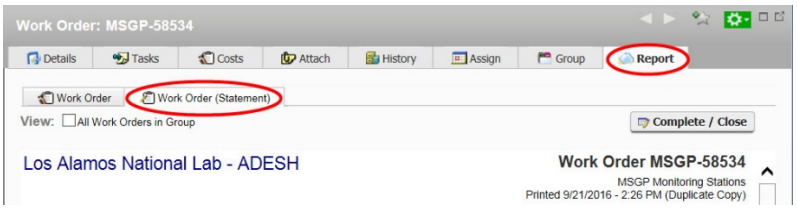
Signature:_____Date:_____

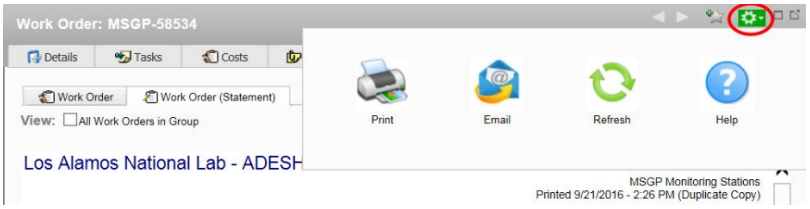
EPC-CP-Form-1021.1 07/2017

Attachment 3: Screenshot Examples of Printing from Maintenance Connection

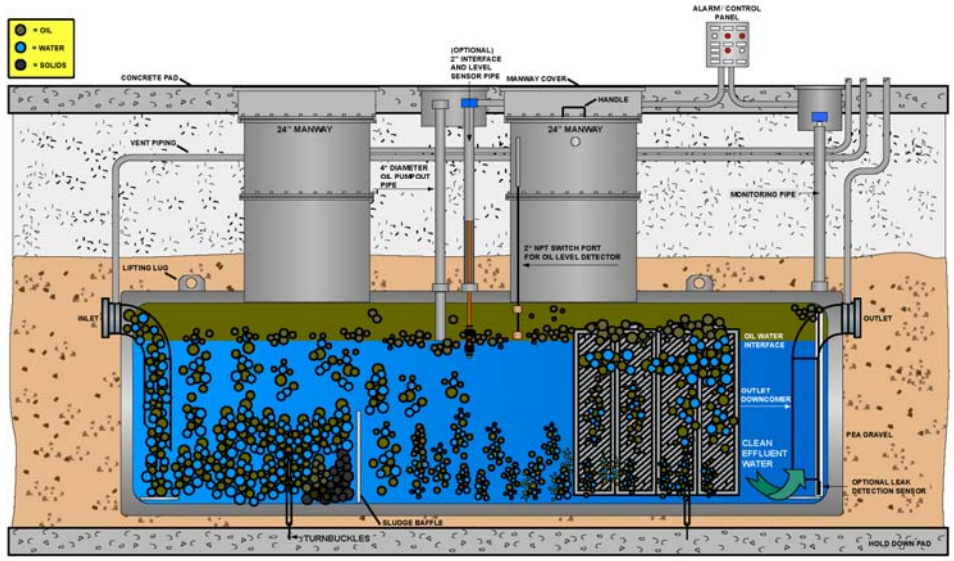








TA60-01 Heavy Equipment Shop
Oil/Water Separator (TA60-313)
Operations and Maintenance Manual



ECOLOGIX HQB BELOW GROUND OIL/WATER SEPARATOR

333IFCS FOD

October 30, 2009

Approvals

Name	Organization	Date	Signature
Project Engineer:			
Engineering Manager:			
Operations Manager:			

Classification

Review & Classification			
(Reviewed By)	(Z#)	(Review Date)	(Classification)

Revisions

Table of Contents

SECTION 1 –Operations & Maintenance Information

SECTION 2 – Manufacturers Procedures, Specifications, & Drawings

SECTION 3 – Project Specifications

SECTION 4 – As Constructed Drawings

SECTION 1

LANL GENERAL INFORMATION

AND

OPERATIONS AND MAINTENANCE PROCEDURES

SECTION 1.0 OIL/WATER SEPARATOR SYSTEM – GENERAL

1.0 **PURPOSE:**

The Oil/Water Separator (OWS) is designed to collect and treat wash water and storm water contaminated with heavy oil (asphalt & grease), light oil (motor oil), or other contaminants such as VOCs or sand and gravel. The OWS separates these contaminants from the influent water by a gravity flotation/separation system. The OWS discharges clean effluent to a manhole (TA60-48) on the LANL Sanitary Wastewater collection system.

2.0 SUPPORTED/SUPPORTING SYSTEMS

2.1. Supported Systems – The Oil/Water Separator (OWS) collects wash water and run-on rain water from the heavy equipment wash pad located at TA60-01, The Heavy Equipment Repair shop. Other than for the installed instrumentation systems, the OWS is a totally passive device which works solely through gravity flow of the influent liquid. No pumps or valves are required to receive, treat, or discharge the influent or effluent.

2.2. Supporting Systems -- 110v AC electrical power is supplied to the OWS instrumentation panels located in the Heavy Equipment Shop. Only 24v AC power is routed to the instrumentation probes in the OWS itself. The OWS discharges clean waste water to the LANL Sanitary Wastewater Collection System. This waste water is treated at the LANL Sanitary Wastewater Treatment Facility.

3.0 MAJOR SYSTEMS AND COMPONENTS

3.1. Envirologix HQB Oil Water Separator

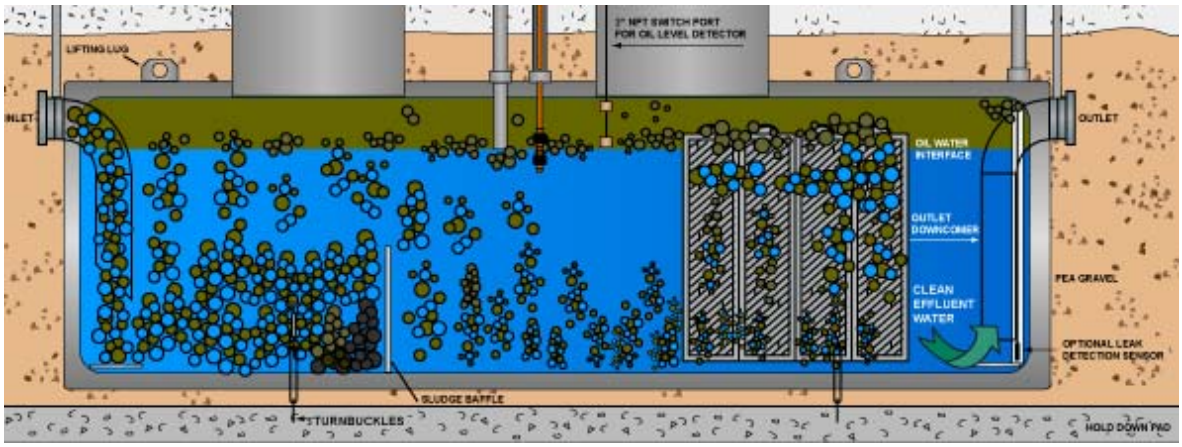


Figure 1. Envirologix HQB2064 Oil/Water Separator

The Envirologix Oil/Water Separator (OWS) is an self contained underground tank type system which is designed to separate both heavy oils (asphalt & grease) and light oils (motor oil) from wash water and stormwater runoff. The OWS will also separate sand and gravel from the influent. The total volume of the tank is 2000 gallons (7.67 M^3). Maximum reject oil storage capacity recommended by the Manufacturer is 40% of the total capacity or 800 gallons (3.0 M^3).

The OWS functions very much like a standard sanitary septic tank system with which many of us are familiar. The easy way to understand operation of the OWS is to think of the entire system as an inverted siphon or "P trap." (See Figure 1) Contaminated water enters the inlet end of the tank through the inlet half of the inverted siphon or "downcomer". Heavy materials in the influent are prevented from flowing further though the tank by the sludge baffle depicted in the drawing.

The influent water and lighter contaminants flow over the baffle and the light contaminants float to the surface of the fluid and coalesce as the contents flow through the tank. Plastic oil coalescing plates are provide to facilitate this process. As new influent enters the tank, clean effluent is forced out of the tank through the effluent downcomer.

It is interesting to note that the OWS tank is always full. The tank is "pre-charged" with clean water upon commissioning or after pumping. The tank fills to the level of the outlet invert (bottom of pipe) and maintains this level though out tje operating "cycle". The only way a higher level of fluid can be experienced in the tank is in the event of a blockage of the effluent pipe.

As waste oil flows into the tank and is collected, the interface surface between the oil and the water moves down, however the top surface of the two fluids never varies. The oil level probe described below is therefore designed to measure the height of the interface between the fluids.

The tank must be pumped on a regular basis to remove accumulated sludge and light oil from the tank. This service is typically provided by a commercial waste oil collection service.

Detailed manufacturers drawings and literature are provided in Section 2. Project specifications are provided inSection 3, and installation drawings are provided in Section 4.

3.2. Sitrans/ Automated Logic Level Sensor system

A flow sensor is installed on the outlet of the tank to measure the amount of water being discharged to the Sanitary Wastewater System. The flow sensor transmits an ultrasonic signal that bounces off the surface of water and returns to the transducer located with in the semspr. The sensor in trun transmits a 4-20 milliamp signal to the Automatic Logic signal processer. The level of the signal is proportional to the flow in the outlet pipe.

The Automated Logic signal processor is calibrated to read flow in gallons per minute. (gpm) The instrumentation package allows real time reading of the flow meter signal, as well as the capability to totalize flow over a several different time periods. This information can be accessed from any personal computer with a web browser operating on the LANL Yellow net.



Figure 3—Sitrans Ultrasonic Level Sensor

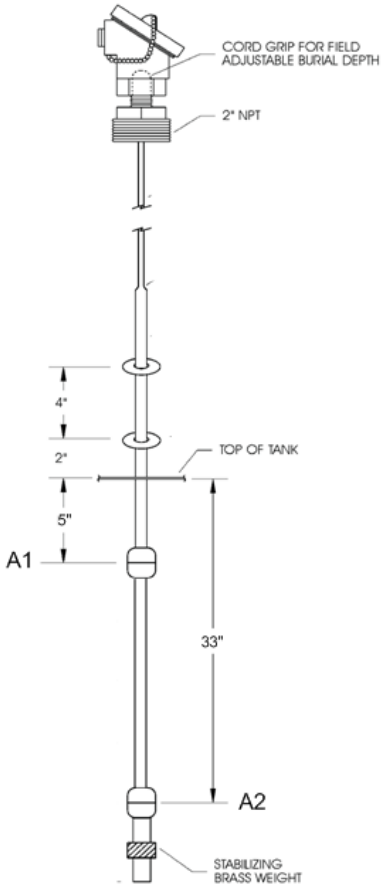
3.3. Aggressive Systems Level Probe and Alarm System.

The OWS is provided with a level sensor and remote alarm system to detect two different fluid levels in the tank. The level sensor is a brass rod inserted vertically in the tank and is equipped with two plastic floats located at pre-specified locations.

The A1 float(Alarm 1-System Alarm) has a specific gravity of 0.60 and will float on top of the oil layer in the tank. The A2 (Alarm 2-High Oil) float has a specific gravity of 0.93. Since it is heavier than oil but lighter than water, it will float on the surface layer between the oil and the water in the tank.

Float A1, the upper float, is set to activate at a level 5 inches below the top of the tank. If the liquid level reaches this limit, the float will activate Alarm 1 at the remote panel. This level is 6" above the outlet invert of the tank and indicates a "blocked flow" condition in which normal effluent flow from the tank is blocked

Float A2 is set to activate at a level 33 inches below the top of the tank. If the oil reaches this level the float will activate Alarm 2 at the remote panel. This alarm indicates the OWS has reached its recommend maximum storage capacity for oil. Oil quantity in the tank when this alarm activates is approximately 814 gallons or 40% of the total tank capacity.



F

Figure 3—Level Probe

When either float senses an alarm condition the appropriate warning light will be illuminated on the remote panel located in the southeast corner of the heavy equipment shop. Either alarm will also cause an audible alarm (horn) to sound. The audible alarm may be muted by pushing the silence button. Pushing the silence button will not reset the alarm condition or extinguish the light. The warning lights may only be extinguished by correcting the alarm condition. See 4.2 below for appropriate alarm response actions.

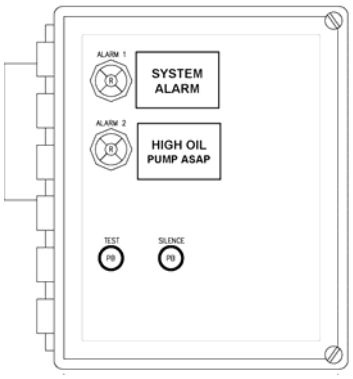


Figure 4—Alarm Panel

4.0 OPERATIONAL BASIS AND PROCEDURES

4.1. Normal Operations

Since the OWS is a passive gravity flow system no special "Operating" Procedures are necessary. The OWS is ready to receive wash water from the heavy equipment wash rack under all normal conditions. Care should be taken however to prevent excessive amounts of sand, grit, or gravel from entering the inlet catch basin.

4.2. Inspections

At time of installation, it is unknown how quickly the OWS will collect oil and sludge. Estimates to reach the 800 gallon light oil limit vary from 1 to 5 years. Accordingly, during the first one year of service, the access ports to the OWS should be removed and the interior should be visually inspected every six months. Thereafter, the OWS should be inspected at least annually. A wooden dipstick may be used to determine the approximate amount of sludge behind the sludge baffles and the approximate amount of light oil in the top of the tank. Alternately, a marked line tied to a small plastic bottle ¾ full of water may be used to measure the level of the water/oil interface in the tank. Pumping of the tank on an annual basis will most likely be required. A longer pumping interval may be established based upon operational experience.

4.3. Response to alarms

4.3.1 Alarm 1-- "System Alarm". This alarm indicates a blocked flow condition in the effluent or outlet pipe. Discontinue use of the wash rack until the blocked flow condition is cleared. See 5.2 below for outlet line cleanout procedures

4.3.2 Alarm 2--"High Oil Alarm". This alarm indicates that the OWS has reached its recommended oil storage limit of 800 gallons. Have the oil and sludge pumped from the OWS within two weeks of the activation of the "High Oil Alarm". The wash rack may continue to be used in the event of this alarm since the OWS can store up to an additional 800 gallons of oil without the risk of an oil release or spill.

5.0 MAINTAINANCE PROCEDURES

5.1. Collection system: The trench drain inlet should be cleaned of sludge and sediment on a twice yearly basis to prevent excess sediment from entering the OWS. If standing water is observed in the trench drain, the inlet pipe to the OWS should be checked for blockage and cleaned if necessary. The 6" ductile iron inlet line can be cleaned with standard sanitary sewer jetting or rodding equipment. Contact the LANL Utilities section to schedule cleaning of the inlet line.

5.2. Effluent (Outlet) line. If the 6" ductile iron outlet line becomes blocked, the line can be cleaned with standard sanitary sewer jetting or rodding equipment from either of the two cleanout access points provided. Contact the LANL Utilities section to schedule cleaning of the outlet line

5.3. Removal (pumping) of collected light oil and sludge and sediment.

Pumping Procedure:

1. Obtain approval for confined space entry. Comply with any entry requirements
2. Remove the cover plate and inner lid on the west access manway
3. Remove the light oil suction line cover plate just east of the east manway
4. Using the waste oil vacuum truck suction line, pump all light oil off the top of the fluid in the tank until relatively clear water is obtained

5. Using the waste oil vacuum truck suction line, suction all heavy oil and sludge from the behind the sludge baffle at the bottom of the tank.
6. Using a 2" fire hose and the nearby fire hydrant east of TA60-01, refill the OWS with water until the flow is observed in the outlet line at the firest cleanout
7. Replace the light oil suction line cover plate
8. Replace the inner lid and cover plate on west access manway

5.4. Removal and Cleaning of the HD Q-PAC Oil Coalescing Plates

1. Obtain approval for confined space entry. Comply with any entry requirements
2. .Remove the cover plate and inner lid on the east access manway
3. a To clean the plates in place, connect a conventional 5/8 or 3/4" water hose to the hosebid loacated at the _____wall of TA60-01. Using a garden hose high pressure nozzle wash the the spaces between the plate rack from the top. Suction all debris from the bottom of the tank after cleaning
   b The plates may also be cleaned outside of the OWS by removing the plates through the east manway using _____hook tool. The plates can be placed on the wash pad and washed with a 5/8" or 3/4" hose with a conventional garden hose high pressure nozzle. Once all sludge is removed from the plates, they can be returned to the OWS. Suction all debris from the bottom of the trench inlet after cleaning
4. Using a 2" fire hose and the nearby fire hydrant east of TA60-01, refill the OWS with water until the flow is observed in the outlet line at the first cleanout
5. Replace the cover plate on the east access manway.

5.5. Maintenance and Calibration of instrumentation.

1. The Aggressive systems alarm panel should be tested once per month by actuating the Test button and observing proper illumination of both alarm lights and actuation of the warning horn.
2. Alarm System floats. The Aggressive Systems level probe should be removed on a biennial basis, and the floats should be actuated manually in order to test continuity of the alarm system wiring.
3. The Sitrans/Automated Logic flow metering system should be calibrated on a biennial basis. This calibration can be conducted by Process and Automation technicians or the instrumentation shop.

5.5.1.1. Calibration procedure:

6.0 RESPONSIBILITES

Maintenance of the OWS will be the responsibility of ____ Heavy Equipment shop personnel. It is recommended that the shop manager appoint a designated technician to be responsible for monitoring of the tank and scheduling of maintenance and servicing.

7.0 GENERAL PRECAUTIONS, LIMITATIONS AND SAFETY HAZARDS

7.1. Confined space—The OWS is designated as a Permit Only Confined space. Prior permission from ESH Personnel is required to enter either of the tank man ways or the tank itself to service the oil coalescing plates.

7.2. Spills when pumping—Appropriate precautions against surface spills are to be taken when pumping waste oil or sludge. These precautions are described in the pumping procedures outline above.

7.3. Overflow—Since inflow into the tank is gravity flow only, there is no way for the tank itself to overflow from the manholes or other connections. The system can only "overflow" in the event of a blocked outlet line. If the installed high level alarm fails to detect a blocked flow condition, the first indication of an overflow would be standing water in the trench drain. See 5.2 above for correction of this condition.

8.0 REFERENCES

8.1. xx

8.2. yy

8.3. zz

SECTION 2

MANUFACTURERS PROCEDURES, SPECIFICATIONS AND DRAWINGS

ECOLOGIX GENERAL DESCIPTION

ECOLOGIX ENVIRONMENTAL SYSTEMS

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  - Food Processing Industry
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  - Latex Removal
  - Metals Treatment
  - Mining Industry
  - Odor Control
  - Petrochemical Industry
  - Poultry Industry
- Products
  - Activated Carbon
  - Air Treatment Systems
  - Bag Filtration
  - Biological Treatment
  - Chemicals (Specialty)
  - Clarifiers
  - Dissolved Air Flotation
  - Dewatering
  - Dust Collection
  - Evaporators
  - Filter Screens
  - Membrane Filtration
  - Microbial Bacteria
  - Oil/Water Separators
    - Above Ground Separators
    - Below Ground Separators
    - Bilge Oil Removal System
    - Liquid Phase Vessels
  - Ozone
  - Polymer Blenders
  - Pressure Filtration
  - Separators/Strainers
  - Tanks
  - Wet Scrubbers

Oil Water Separators > Below Ground Oil Water Separators

Oil water separators are systems used as an efficient method to separate oils and some solids from a variety of wastewater discharges. They are typically installed in industrial and maintenance areas and receive oily wastewater. Our line of above ground oil water separators will assist in the removal of large quantities of free oil from your wastewater before any further treatment step you may have in your process. We have below ground oil water separators with flow rates ranging from 20 to 2000 gallons per minute and capacities up to over 20,000 gallons.

Related product links
AFD-55 | AFP-55 Series | BORS | Above Ground Separator (ECOS) | HD Q-PAC | Inclined Plate Clarifiers | Hopper/Separator | OilFree Polymeric Filtering

Features

- Low maintenance cost
- Easily cleaned through the removable vapor tight cover(s)
- No moving parts or consumables
- No power consumption
- No chemicals, absorbent or filter cartridges to remove, replace or dispose of
- Service & maintenance of coalescing media and removal of sludge from outside
- No confined spaces
- Shallow burial depth

HQB Series Diagram.PDF | HQB Ballast & Pad Specs | HQB Series - How They Work





Technical Features

- HQB's Oil/Water Separators are versatile and can be used in many different applications.
- Plasteel Elutron Jacketed Oil Water Separators are in a unique double wall jacketed construction with 360 degree interstitial monitoring.
- Primary tank of welded steel construction in accordance with UL 58.
- Secondary containment is constructed of FRP laminate that does not become brittle or soft below or above ground and has been successfully tested to UL 1746 requirements for corrosion protection.
- Cathodic protection and/or dielectric isolation not required.
- The Unipack cross fluted plates are manufactured of PVC, CPVC, PP, SS, or FRP.
- Sizes available up to GPM.

Dimensional Parameters for Ecologix Below Ground Oil Water Separators

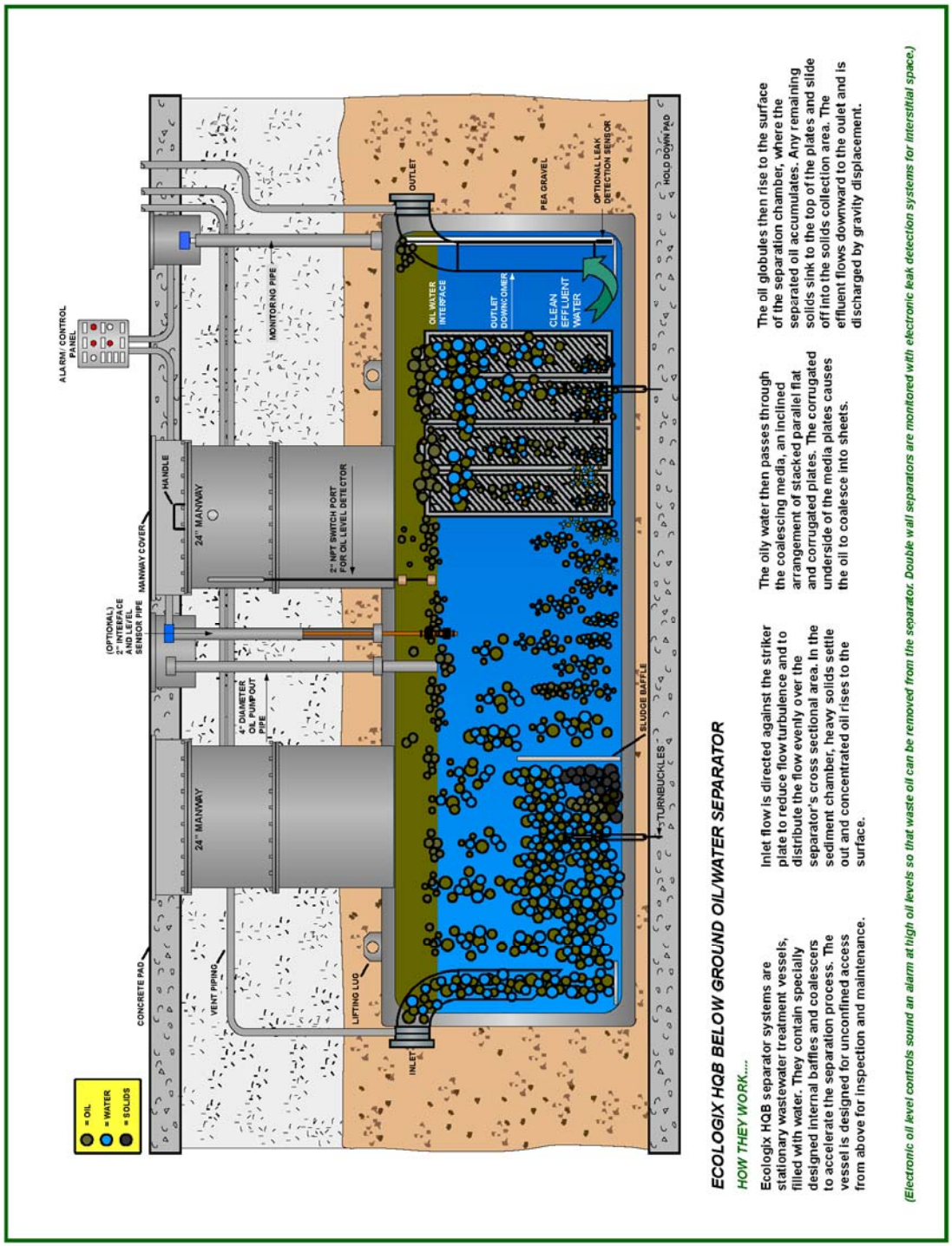
MODEL	DIA.	LENGTH	INLET	OUTLET	FLOW RATE	TANK CAPACITY (GAL.)	OIL SPILL CAPACITY (GAL.
HQB342	3' - 9 "	4' - 5 "	4"	4"	20	400	320
HQB548	4' - 0"	6' - 3 "	4"	4"	50	600	480
HQB1048	4' - 0"	10' - 9"	6"	6"	100	1000	800
HQB2064	5' - 4"	12' - 0"	6"	6"	200	2000	1600
HQB3064	5' - 4"	18' - 0"	8"	8"	300	3000	2400
HQB4072	5' - 4"	24' - 0"	8"	8"	400	4000	3200
HQB5072	6' - 0"	23' - 10"	8"	8"	500	5000	4000
HQB6072	6' - 0"	28' - 8"	10"	10"	600	6000	4800
HQB7084	7' - 0"	24' - 4 "	10"	10"	700	7000	5600
HQB8084	7' - 0"	28' - 0 "	10"	10"	800	8000	6400
HQB9096	8' - 0"	24' - 0"	12"	12"	900	9000	7200
HQB10096	8' - 0"	26' - 8"	12"	12"	1000	10,000	8000
HQB12096	8' - 0"	32' - 0"	12"	12"	1200	12,000	9600
HQB15121	10' - 0"	25' - 6"	14"	14"	1500	15,000	12,000
HQB21120	10' - 0"	34' - 0"	18"	18"	2000	20,000	16,000

Operation

The separator is a special purpose prefabricated parallel corrugated plate gravity displacement type oil/water separator designed to remove free and dispersed non-emulsified oil and settlable solids, in accordance with API 421. The separator capacities, dimensions, and construction will be in strict accordance with UL 58, and UL 1746. Separator shall be comprised of a tank containing:

Inlet Compartment

The inlet chamber will be comprised of a non-clog diffuser pipe to distribute the flow across the width of the separator chamber. The inlet compartment shall be of sufficient volume to effectively reduce influent suspended solids, dissipate energy and begin separation. A sludge baffle will be provided to prevent settlable solids and sediment from entering the separation chamber.



ECOLOGIX HQB BELOW GROUND OIL/WATER SEPARATOR

HOW THEY WORK....

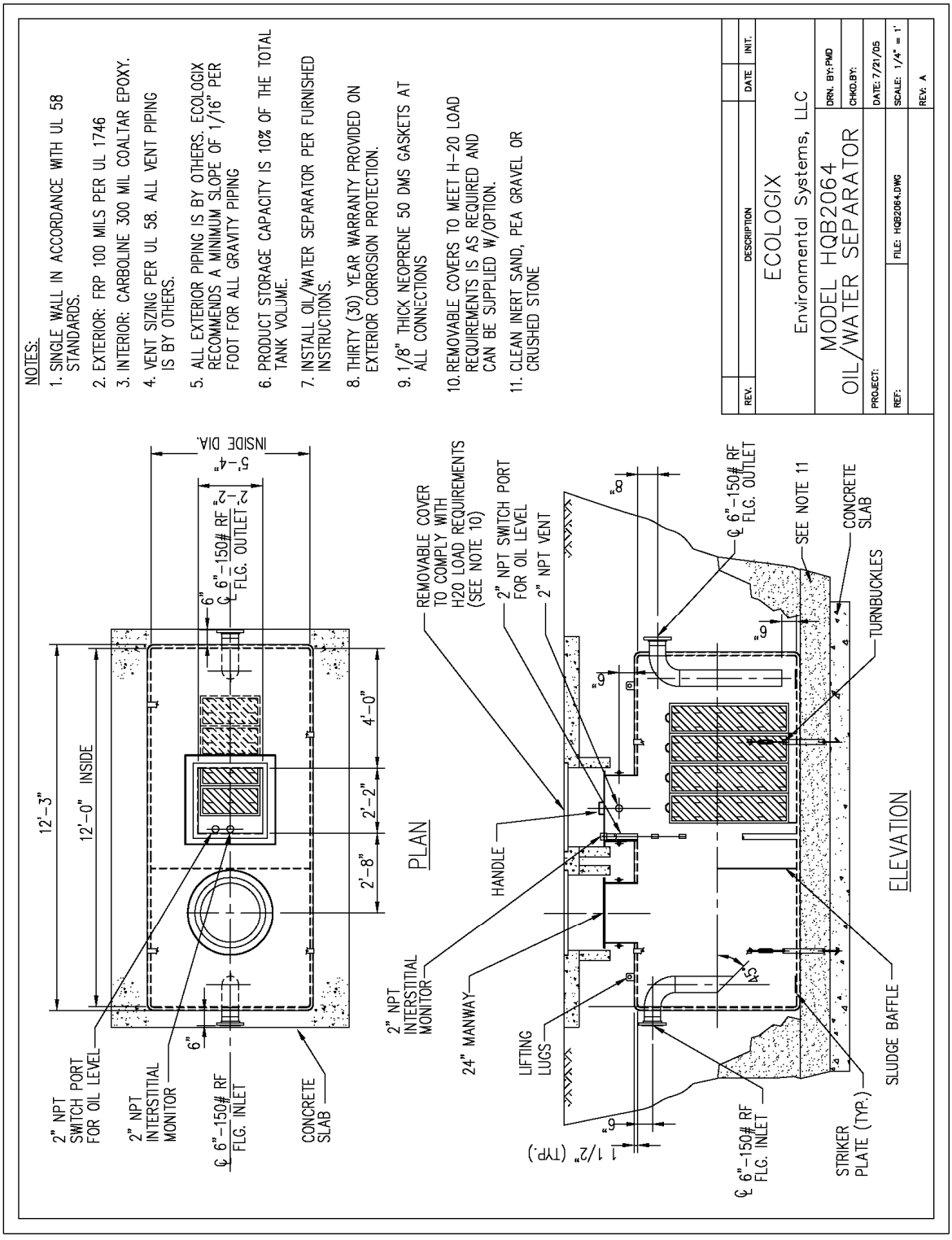
Ecologix HQB separator systems are stationary wastewater treatment vessels, filled with water. They contain specially designed internal baffles and coalescers to accelerate the separation process. The vessel is designed for unconfined access from above for inspection and maintenance.

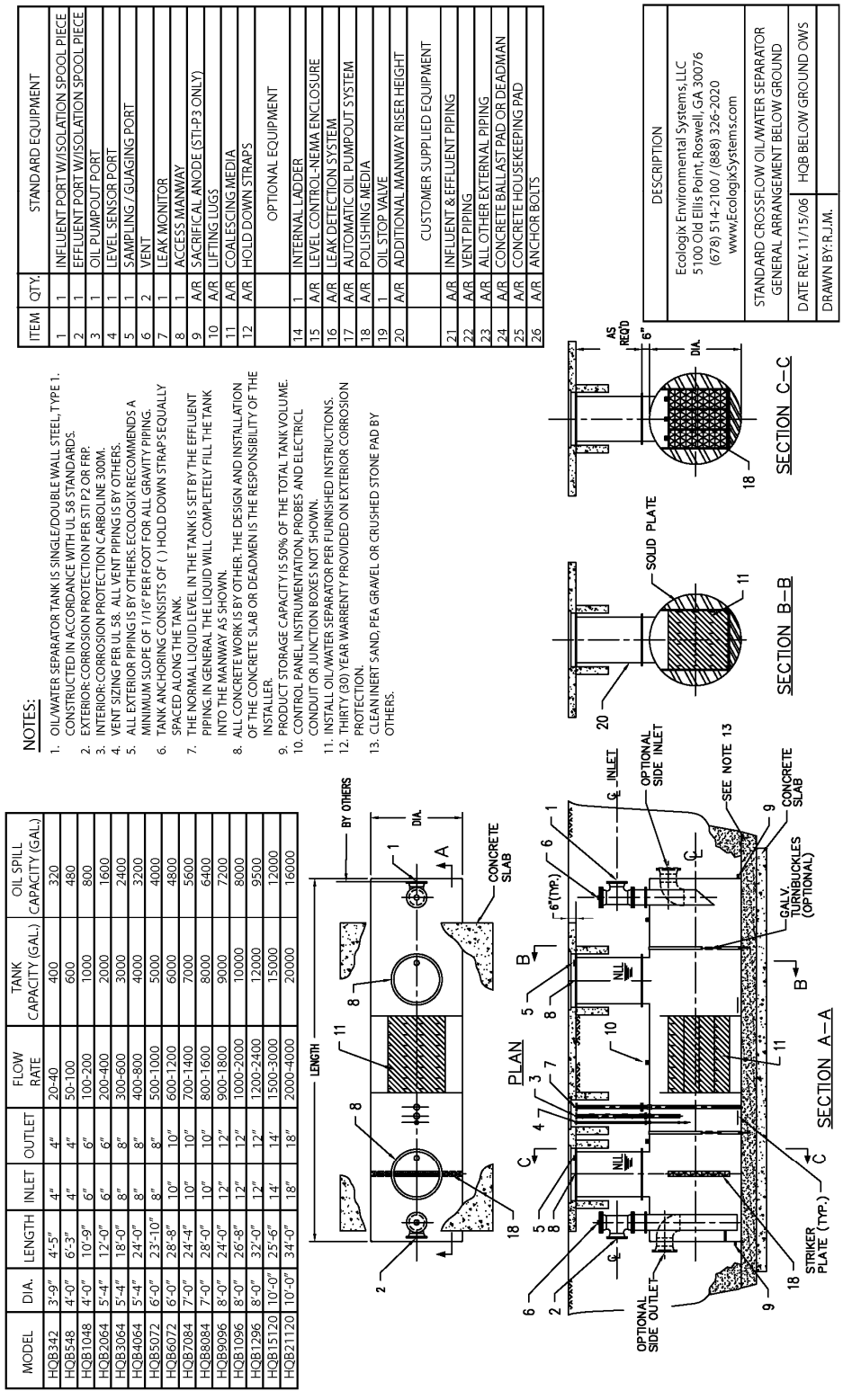
Inlet flow is directed against the striker plate to reduce flow turbulence and to distribute the flow evenly over the separator's cross sectional area. In the sediment chamber, heavy solids settle out and concentrated oil rises to the surface.

The oily water then passes through the coalescing media, an inclined arrangement of stacked parallel flat and corrugated plates. The corrugated underside of the media plates causes the oil to coalesce into sheets.

The oil globules then rise to the surface of the separation chamber, where the separated oil accumulates. Any remaining solids sink to the top of the plates and slide off into the solids collection area. The effluent flows downward to the oulet and is discharged by gravity displacement.

(Electronic oil level controls sound an alarm at high oil levels so that waste oil can be removed from the separator. Double wall separators are monitored with electronic leak detection systems for interstitial space.)


NOTES:
1. SINGLE WALL IN ACCORDANCE WITH UL 58 STANDARDS.
2. EXTERIOR: FRP 100 MILS PER UL 1746
3. INTERIOR: CARBOLINE 300 MIL COALTAR EPOXY.
4. VENT SIZING PER UL 58. ALL VENT PIPING IS BY OTHERS.
5. ALL EXTERIOR PIPING IS BY OTHERS. ECOLOGIX RECOMMENDS A MINIMUM SLOPE OF 1/16" PER FOOT FOR ALL GRAVITY PIPING
6. PRODUCT STORAGE CAPACITY IS 10% OF THE TOTAL TANK VOLUME.
7. INSTALL OIL/WATER SEPARATOR PER FURNISHED INSTRUCTIONS.
8. THIRTY (30) YEAR WARRANTY PROVIDED ON EXTERIOR CORROSION PROTECTION.
9. 1/8" THICK NEOPRENE 50 DMS GASKETS AT ALL CONNECTIONS
10. REMOVABLE COVERS TO MEET H-20 LOAD REQUIREMENTS IS AS REQUIRED AND CAN BE SUPPLIED W/OPTION.
11. CLEAN INERT SAND, PEA GRAVEL OR CRUSHED STONE
REV.
DESCRIPTION
DATE
INIT.
ECOLOGIX
Environmental Systems, LLC
MODEL HQB2064
OIL/WATER SEPARATOR
DRN. BY: PMD
CHKD.BY:
DATE: 7/21/05
SCALE: 1/4" = 1'
REV: A
PROJECT:
REF:
FILE: HQB2064.DWG
PLAN
ELEVATION
INSIDE DIA.
5'-4"
12'-3"
12'-0" INSIDE
4'-0"
2'-2"
2'-8"
6"
2" NPT SWITCH PORT FOR OIL LEVEL
2" NPT INTERSTITIAL MONITOR
℄ 6"-150# RF FLG. INLET
CONCRETE SLAB
℄ 6"-150# RF FLG. OUTLET
REMOVABLE COVER TO COMPLY WITH H20 LOAD REQUIREMENTS (SEE NOTE 10)
2" NPT SWITCH PORT FOR OIL LEVEL
2" NPT VENT
SEE NOTE 11
HANDLE
24" MANWAY
LIFTING LUGS
1 1/2" (TYP.)
STRIKER PLATE (TYP.)
TURNBUCKLES
SLUDGE BAFFLE
45°



MODEL	DIA.	LENGTH	INLET	OUTLET	FLOW RATE	TANK CAPACITY (GAL.)	OIL SPILL CAPACITY (GAL.)
HQB342	3'-9"	4'-5"	4"	4"	20-40	400	320
HQB548	4'-0"	6'-3"	4"	4"	50-100	600	480
HQB1048	4'-0"	10'-9"	6"	6"	100-200	1000	800
HQB2064	5'-4"	12'-0"	6"	6"	200-400	2000	1600
HQB3064	5'-4"	18'-0"	8"	8"	300-600	3000	2400
HQB4064	5'-4"	24'-0"	8"	8"	400-800	4000	3200
HQB5072	6'-0"	23'-10"	8"	8"	500-1000	5000	4000
HQB6072	6'-0"	28'-8"	10"	10"	600-1200	6000	4800
HQB7084	7'-0"	24'-4"	10"	10"	700-1400	7000	5600
HQB8084	7'-0"	28'-0"	10"	10"	800-1600	8000	6400
HQB9096	8'-0"	24'-0"	12"	12"	900-1800	9000	7200
HQB1096	8'-0"	26'-8"	12"	12"	1000-2000	10000	8000
HQB1296	8'-0"	32'-0"	12"	12"	1200-2400	12000	9500
HQB15120	10'-0"	25'-6"	14"	14"	1500-3000	15000	12000
HQB21120	10'-0"	34'-0"	18"	18"	2000-4000	20000	16000

NOTES:

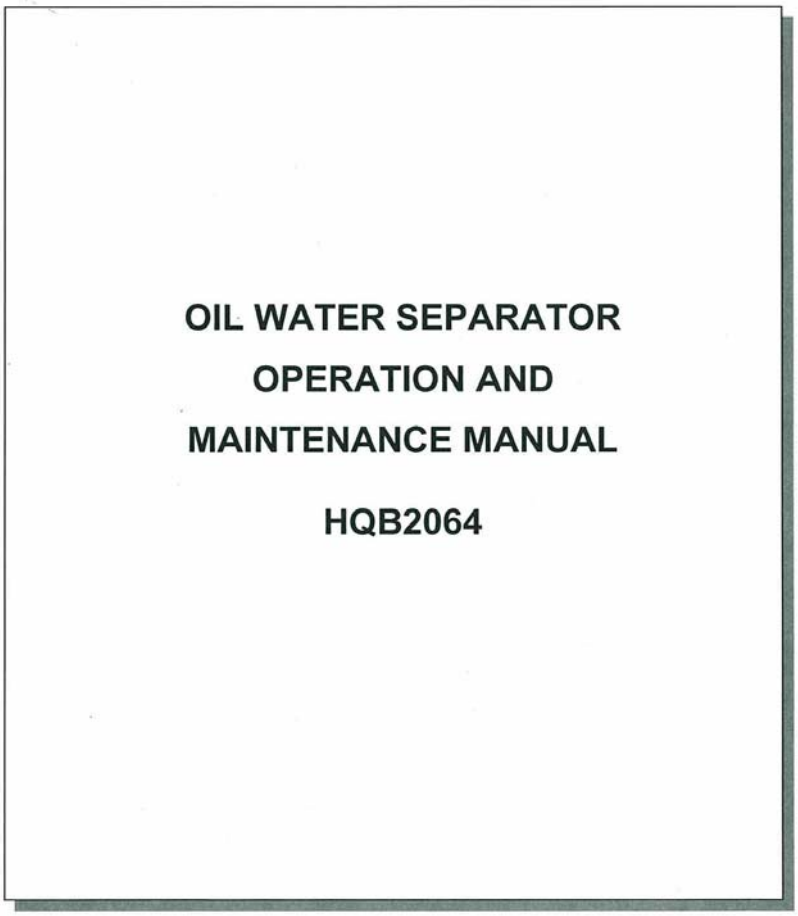
1. OIL/WATER SEPARATOR TANK IS SINGLE/DOUBLE WALL STEEL, TYPE 1. CONSTRUCTED IN ACCORDANCE WITH UL 58 STANDARDS.
2. EXTERIOR: CORROSION PROTECTION PER STI P2 OR FRP.
3. INTERIOR: CORROSION PROTECTION: CARBOLINE 300M.
4. VENT SIZING PER UL 58. ALL VENT PIPING IS BY OTHERS.
5. ALL EXTERIOR PIPING IS BY OTHERS: ECOLOGIX RECOMMENDS A MINIMUM SLOPE OF 1/16" PER FOOT FOR ALL GRAVITY PIPING.
6. TANK ANCHORING CONSISTS OF ( ) HOLD DOWN STRAPS EQUALLY SPACED ALONG THE TANK.
7. THE NORMAL LIQUID LEVEL IN THE TANK IS SET BY THE EFFLUENT PIPING. IN GENERAL THE LIQUID WILL COMPLETELY FILL THE TANK INTO THE MANWAY AS SHOWN.
8. ALL CONCRETE WORK IS BY OTHER. THE DESIGN AND INSTALLATION OF THE CONCRETE SLAB OR DEADMEN IS THE RESPONSIBILITY OF THE INSTALLER.
9. PRODUCT STORAGE CAPACITY IS 50% OF THE TOTAL TANK VOLUME.
10. CONTROL PANEL, INSTRUMENTATION, PROBES AND ELECTRICL CONDUIT OR JUNCTION BOXES NOT SHOWN.
11. INSTALL OIL/WATER SEPARATOR PER FURNISHED INSTRUCTIONS.
12. THIRTY (30) YEAR WARRENTY PROVIDED ON EXTERIOR CORROSION PROTECTION.
13. CLEAN INERT SAND, PEA GRAVEL OR CRUSHED STONE PAD BY OTHERS.

ITEM	QTY.	STANDARD EQUIPMENT
1	1	INFLUENT PORT W/ISOLATION SPOOL PIECE
2	1	EFFLUENT PORT W/ISOLATION SPOOL PIECE
3	1	OIL PUMPOUT PORT
4	1	LEVEL SENSOR PORT
5	1	SAMPLING / GUAGING PORT
6	2	VENT
7	1	LEAK MONITOR
8	1	ACCESS MANWAY
9	A/R	SACRIFICAL ANODE (STI-P3 ONLY)
10	A/R	LIFTING LUGS
11	A/R	COALESCING MEDIA
12	A/R	HOLD DOWN STRAPS
		OPTIONAL EQUIPMENT
14	1	INTERNAL LADDER
15	A/R	LEVEL CONTROL-NEMA ENCLOSURE
16	A/R	LEAK DETECTION SYSTEM
17	A/R	AUTOMATIC OIL PUMPOUT SYSTEM
18	A/R	POLISHING MEDIA
19	1	OIL STOP VALVE
20	A/R	ADDITIONAL MANWAY RISER HEIGHT
		CUSTOMER SUPPLIED EQUIPMENT
21	A/R	INFLUENT & EFFLUENT PIPING
22	A/R	VENT PIPING
23	A/R	ALL OTHER EXTERNAL PIPING
24	A/R	CONCRETE BALLAST PAD OR DEADMAN
25	A/R	CONCRETE HOUSEKEEPING PAD
26	A/R	ANCHOR BOLTS

DESCRIPTION	
Ecologix Environmental Systems, LLC 5100 Old Ellis Point, Roswell, GA 30076 (678) 514-2100 / (888) 326-2020 www.EcologixSystems.com	
STANDARD CROSSFLOW OIL/WATER SEPARATOR GENERAL ARRANGEMENT BELOW GROUND	
DATE REV. 11/15/06	HQB BELOW GROUND OWS
DRAWN BY: R.J.M.	

ECOLOGIX INSTALLATION AND OPERATIONS MANUAL

Ecologix Environmental Systems, LLC
5100 Old Ellis Point, Suite 200
Roswell, GA 30075
Toll Free: 888-326-2020 Tel: 678.514.2100 Fax: 678.514.2106
Email: info@ecologixsystems.com Web Site: www.ecologixsystems.com



Ecologix Environmental Systems, LLC www.ecologixsystems.com
Phone 678-514-2100 · Fax 678-514-2106

LIMITED WARRANTY

Ecologix equipment is warranted as to workmanship, material and performance when properly installed, used, and cared for, and provided that the original design criteria represent actual field data at the time of operation. Should any parts or parts prove defective within twenty-four (24) months from the date of purchase, it will be replaced F.O.B. destination without charge, provided the part (or parts) is returned transportation charges prepaid.

No allowance will be made for labor, transportation, or other charges incurred in the replacement or repair of defective parts by the customer. This warranty does not apply when damage is caused by conditions such as sand or abrasive materials pumped with the fluids, lightning, improper voltage supply, careless handling, improper installation, stray electrical interference, or due to substances or factors that were unknown to Ecologix at the time of purchase. Buyer shall have no claim, and no product or part shall be deemed defective, by reason of failure to resist erosive or corrosive action, nor for problems resulting from buildup of material within the equipment.

This warranty applies only to seller's equipment, under use and service in accordance with the seller's written instructions, recommendations and ratings for installation, operating and maintenance, and service. All claims for defective products, parts, or work under this warranty must be made in writing immediately upon discovery and, in any event, within one year of purchase.

This warranty is a *Limited Warranty*, anything in the warranty notwithstanding. Implied warranties for particular purpose and merchantability shall be limited to the duration of express warranty. The manufacturer expressly disclaims and excludes any liability of consequential or incidental damages for breach of any express or implied warranty.

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Phone 678-514-2100 · Fax 678-514-2106

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1.0) INTRODUCTION

Ecologix Environmental Systems, LLC (Ecologix) Oil Water Separator (OWS) Model **HQB2064** will remove essentially all free and dispersed, non-emulsified oil, and settleable solids from the oil water mixture at a flow rate of 150 GPM at a temperature of 55° F. The design utilizes the difference in specific gravity between oil and water (buoyancy force) enhanced by the use of 24 cubic feet of HD Q-PAC coalescing plates. The separator is designed to receive oily water by gravity/pumped flow that will not mechanically emulsify the oil and will process it on a once through basis. The oil water separator will be a direct buried unit in accordance with the requirements of UL 58 and designed to withstand earth load, live load and hydraulic pressure. The separator will be a single wall unit with exterior corrosion protection. The tank comes with a 30 year limited warranty on exterior corrosion protection. The HD Q-PAC coalescing plates are manufactured of UV Resistant Polypropylene material.

2.0 SYSTEM DESCRIPTION AND REQUIREMENTS

2.1 *FABRICATION:* The oil water separator is a special purpose prefabricated parallel-corrugated plate, cylindrical, gravity displacement, single wall unit. The separator capacities, dimensions and construction, shall be in strict accordance with UL 58, and UL 1746. The separator shall be comprised of a tank containing an inlet compartment, separation chamber, sludge chamber, oil storage compartment and clean water outlet chamber.

2.2 *TANK:* The tank shall be constructed of 10 gauge minimum thick carbon steel plate conforming to ASTM A36. Welding will be in accordance with AWS D1.1 to provide a watertight tank that will not warp or deform under load. Pipe connections to the exterior shall be as follows:

2.2.1 *PIPE CONNECTIONS*: All connections 3" and smaller are FNPT couplings. All connections 4" and larger are flat face flanges with ANSI 150 pound standard bolt circle. Use flanged piping connections that conform to ANSI B16.5.

2.3 *SEPARATOR CORROSION PROTECTION*: (For Carbon Steel Only) after shop hydrostatic test has been successfully completed, a coating system will be applied to the interior and exterior surfaces of the separator. Interior and exterior shall be sandblasted to SSPC-SP10 & SSPC-SP6; Interior lined with Tnemec Series 61 liner to 9 mils MDFT; Exterior coated with FRP Elutron to 100 mils MDFT.

2.4 *MANWAYS*: Manways will provide access into the separator to service the coalescer and sludge removal from grade level. The manways will be provided complete with extension, clamp down cover and gasket.

2.5 *LIFTING LUGS*: The tank shall be provided with properly sized lifting lugs for handling and installation.

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2.6 *INLET COMPARTMENT*: The inlet chamber shall be comprised of a non-clog diffuser to distribute the flow across the width of the separation chamber. The inlet compartment shall be of sufficient volume to effectively reduce influent suspended solids, dissipate energy and begin separation. The media will sit elevated on top of a sludge baffle. The sludge baffle will be provided to retain settleable solids and sediment from entering the separation chamber.

2.7 *SEPARATION CHAMBER*: The oil separation chamber shall contain HD Q-PAC Coalescing Media containing a minimum of 132 square feet per cubic foot of effective coalescing surface area. The medias needle like elements (plates) shall be at 90 degrees to the horizontal or longitudinal axis of the separator. Spacing between these elements shall be spaced 3/16" apart for the removal of a minimum of 99.9% of free droplets 20 micron in size or greater. The elements are positioned to create an angle of repose of 90 degrees to facilitate the removal of solids that may tend to build up on the coalescing surfaces, which would increase velocities to the point of discharging an unacceptable effluent. Laminar flow with a Reynolds Number of less than 500 at a maximum designed flow rate shall be maintained throughout the separator packed bed including entrance and exit so as to prevent re-entrainment of oils with water. Flow through the polypropylene coalescing media shall be crossflow perpendicular to the vertical media elements such that all 132 square feet/cubic foot of coalescing media is available for contact with the coalescing surfaces. None of the coalescing media surfaces shall be pointing upward so as not to be available for contact with the crossflowing oily water. The media shall have a minimum of 87% void volume to facilitate sludge and dirt particles as they fall off the vertical elements and settle in the sludge compartment. The media when installed in crossflow OWS shall meet US EPA Method 413.2 and also European Standard 858-1.

2.8 *SLUDGE CHAMBER*: The sludge chamber shall be located prior to the coalescing compartment for the settling of any solids. It shall also prevent any solids from entering the clean water chamber.

2.9 *OIL STORAGE*: The waste oil storage shall be an integral part of the separator, and have a capacity of 30 percent of the total separator volume. Oil will be stored on the surface of the water and can be pumped away when oil/water interface reaches a predetermined depth.

2.10 *CLEAN WATER CHAMBER:* The tank will be provided with a clean water chamber which allows the water to leave the separator by gravity flow through the clean water outlet port.

2.11 *VENTS AND HOLD DOWN STRAPS:* (If required) sufficient vents and hold down straps will be provided.

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3.0 SAFETY AND ENVIRONMENTAL CONSIDERATIONS

3.1 All normal safety precautions should be taken with this equipment to prevent accidents and fires.

3.2 Normal fire prevention measures must be taken to prevent fire danger from separated oil.

3.3 Care should be taken to keep the area around the separator clean to prevent accidents.

3.4 Disposal of the separated oil and solids, which may contain hazardous material, must comply with the regulations of the authority having jurisdiction.

3.5 Safety and environmental protection are the responsibility of the user. ECOLOGIX assumes no liability for misuse of this separator or for use outside the purpose for which it is designed.

4.0 INSPECTION AND OFFLOADING

4.1 *INSPECTION*: Inspect the oil water separator upon delivery for any damage, which may have occurred in shipment. Areas most susceptible to damage are connections and cover openings. If the separator is damaged, ECOLOGIX should be notified immediately. The off loading personnel should note the extent of damage and sign and date the bill of lading. A claim should be filed with the delivering carrier.

4.2 *OFF LOADING*: The separator must be carefully removed from the truck so the unit is not damaged. Components for the separator are often supplied in a separate carton. Proper rigging practices should be observed at all times. Hoisting equipment operators should attach a guide line to prevent the separator from swinging out of control. Do not drop the separator or allow it to fall hard in the process of inverting, turning, or moving. Do not slide the separator.

4.3 *COATINGS*: All damaged coatings should be touched up immediately ! Please contact the factory if more specific information is required. Under no conditions should chains or cables be put around the separator. Use spreader bars, and the lifting eyes on the unit.

4.4 *STORAGE*: If the equipment is not to be installed at the time of delivery, it should be stored in an area away from traffic. The ground should be level and free sharp objects that might damage the coatings. All equipment should be stored off the ground on timbers. All factory packing should remain intact until the unit is ready for installation. Equipment should be stored indoors. If not, care should be taken that tanks do not fill up with water and debris. Covering all of the equipment with a tarp is strongly recommended.

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5.0 SYSTEM INSTALLATION

When placing the separator for system operation, be sure it is installed in a concrete foundation, which provides adequate support under full load operating conditions. Even if a mounting skid is used, a concrete pad or other properly designed structure must be installed as a foundation. The length and width of this pad are dependent upon the footprint of the unit. Thickness of the concrete pad depends on local soil and frost conditions. A local qualified civil engineer should be contacted to determine these dimensions.

5.1 *FOR EQUIPMENT BURIED IN GROUND ON CONCRETE SLAB FOLLOW INSTALLATION INSTRUCTIONS PROVIDED BY THE STEEL TANK INSTITUTE FOR UNDERGROUND TANKS ON THE FOLLOWING PAGES.*

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5.1.1 A concrete slab must be installed around the equipment if the separator is going to be subject to traffic loads. It should be designed to carry the load and transmit the load into adjacent, undisturbed soil, not onto the tank side walls!

5.1.2 If a concrete pad is not installed and the equipment is subject to traffic loads, deformation or in some cases total collapse of the equipment may occur. ECOLOGIX cannot be held responsible for equipment subjected to such loads!

5.2 *LEVELING*

5.2.1 At this point the equipment should be set exactly in place and the anchor bolts should be installed.

5.2.2 Remove any lids.

5.2.3 The tankage should now be made as level as possible. The absolute minimum requirements being, within +/- 1/16" per foot from inlet to outlet end of tank and +/- 1/16" per foot from side to side, maximum of +/- 1/4" total. Shim the tank, if necessary, until these parameters are met. We recommend the use of stainless steel shim stock. When installing shims, make sure to locate them under all vertical tank supports.

NOTE: We cannot stress enough the leveling process. It is better to invest a little time at this point than to try to correct an improperly leveled tank later. A level installation functions better, has a better appearance and will give you fewer problems in the future.

The next step toward system start involves the plumbing and electrical connections. Any valves and/or piping should be adequately supported and accepted piping and valve practices must be followed for proper system operation. Any pump or level probe wiring and conduit connections should be made at this time. If the unit includes internal level detection, insert the level detection level indicated on the drawing.

5.3 PLUMBING

5.3.1 When making connections to the equipment do not use the equipment as a pipe support. All plumbing should stand on its own if disconnected from equipment. ECOLOGIX cannot be held responsible for damage caused by using this equipment to support your plumbing.

5.3.2 Connections do not have to be made in the order listed below. Review your situation and make the connections in the most convenient order for your particular application.

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5.3.3 Connect the outlet plumbing. The effluent plumbing must be the same size or larger than the nozzle size of the equipment. Do not reduce the size of the effluent piping as this might cause hydraulic overloading of the equipment. Also, try to run the discharge piping through as few changes as possible, as short a distance as possible and at a pitch of not less than 1/16" per foot. On gravity flow units it may be necessary to vent exterior piping to prevent air locks in discharge pipe.

5.3.4 Connect the inlet plumbing. The influent must be the same size or smaller than the nozzle size on the equipment. Do not increase the size of the influent piping as this might cause hydraulic overloading of the equipment. Also, the pitch of the pipe should not exceed 1/16" per foot.

5.3.5 On most units, vents will have been provided. These vents have been supplied to prevent air locks during surge conditions. For both indoor and outdoor applications the vents should be run to a location where noxious and sometimes volatile gas would pose no hazard. Follow all applicable fire codes with regards to size of vent pipe.

Warning: Do not plug or otherwise obstruct air flow through the vents. Obstructing air flow through the vents could damage the unit and/or create a hazardous condition.

6.0 SEPARATOR SET UP AND START UP PROCEDURES

6.1 *SEPARATOR SET UP PROCEDURES*:

The inlet flow to the separator must be by gravity or a positive displacement pump upstream. Centrifugal pumps greatly agitate the oil and water and tend to make a stable emulsion that is very difficult, if not impossible, to separate by gravity settling.

Separator flow should be controlled upstream to ensure even, steady flow, and stable conditions in the separator. Unstable flows tend to reduce efficiency and may cause high oil concentration at the outlet.

6.1.1 The separator tank is atmospheric in design and must be vented to the atmosphere. Consult the OWS drawing for location of all vents.

6.1.2 To achieve the desired flow, excessive throttling of the input must be avoided as this will also cause emulsification of the oil, adversely effecting separator performance. Especially avoid the use of globe type or other valves with high-pressure drops.

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6.1.3 It is recommended that the effluent water flows by gravity flow from the separator. The pressure loss for the water effluent pipe shall not exceed the drop elevation of the customer lines. External piping should be separately supported. The separator is not designed to support piping.

6.1.4 To install the separator, follow these steps:
(Please refer to attached installation drawing)

1. Ensure that the source of the water to be treated is properly regulated and not provided with a centrifugal pump or other device, which will cause emulsification such as a high-pressure drop valve.

2. Ensure that the separator is securely installed per installation drawing.

6.2 *SEPARATOR START-UP PROCEDURES*:

6.2.1 Initial start-up.

This procedure is to be followed after the installation of the separator or after the separator has been drained for maintenance and is ready to be restarted.

6.2.1.1 Ensure that the owner supplied upstream influent flow regulating valve is closed.

6.2.1.2 Before starting the flow to the unit, remove the coalescer access cover and ensure that the HD Q-PAC packs have not shifted and are securely fastened. The separator should contain plate packs, polishing pack and adjustable oil skimmer pipe tube. (Slot of skimmer to be turned upward away from water)

6.2.1.3 Ensure that there are not obstructions in the water outlet piping.

6.2.1.4 With the coalescer access cover off, fill the tank with clean water, establishing flow from the effluent opening. Check for leaks.

6.2.1.5 Allow the influent oil water mixture into the OWS tank.

6.2.1.6 Replace the coalescer access cover and bolt down liquid tight.

6.2.2 Normal operation:

Carefully maintain flow at the rate set when flow was established. Once a sufficient quantity of oil has accumulated in the separator, turn the slot of the skimmer into the oil layer (The oil will then be decanted into an integral oil

storage compartment or to a separate tank outside of the separator). Disposal of the oil must comply with regulations of the authority having jurisdiction.

7.0 QUALITY ASSURANCE

7.1 *INSPECTION*: Examine each component of the separator for compliance with requirements indicated in Section 2 - System Description & Requirements. This element of inspection shall encompass visual examination.

7.2 *PRETEST PROCEDURES*: After separator has been leveled, hydrostatically test unit for (4) hours by filling full with potable water, provided by customer, with means of getting it from the nearest source by the installer. Acceptance criteria for this test is no leakage after four (4) hours.

7.3 *TESTS*: After hydrostatic test has been successfully completed and unit has been properly connected to influent and effluent piping, allow influent oil water mixture of 100 ppm, to flow into separator filled with potable water. After injection, operate unit for a minimum of ten tank volume changes prior to testing for contaminant removal.

7.4 *TEST FOR CONTAMINANTS*: The installer shall test the effluent to ensure that it meets oil concentration levels described in Section 2 - System Description & Requirements. Test shall be performed by an independent certified testing laboratory.

7.5 *ANALYTICAL METHODS:* Test and sample preservation methods for test contaminants shall be in accordance with the latest revision of EPA Methods for Chemical Analysis of Water and Wastes. Effluent oil concentration shall be measured by gravimetric, Separatory Funnel Extraction Method API 413.1.

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8.0 MAINTENANCE

8.1 The separator should be checked periodically to determine if excessive amounts of solids and debris have accumulated. If this happens the solids may accumulate enough to plug the lower part of the HD Q-PAC plates. In this case, efficiency will be reduced and oil in the outlet water may exceed specified effluent limits.

8.2 After the first 6 months of operation, the inlet area should be inspected and cleaned as follows:

1. Stop the flow of influent to the separator.
2. Remove separator cover.
3. Dispose of separated oil per regulatory procedures.
4. Remove water from separator through drain or hose.

8.3 Measure and record the depth of the solids. Use this measurement as the timing basis for the next solids inspection and clean out. Consult OWS drawing for depth of sludge baffle. Solids should not exceed this depth.

8.4 The HD Q-PAC plates can be either cleaned in place or removed and cleaned .

1. For cleaning in place, connect a pressure water hose (1-15 psig) and insert in plate spacing on top of the plate packs. As the water flushes the dirt out of the plate packs it should be removed by the vacuum hose.

2. For removing plate packs outside of separator. Flush with garden hose (10-15 psig) over an area to prevent discharge of flushed water into groundwater. It is only necessary to remove all sludge from between the plates and any very heavy oil coating.

8.5 Examine tank interior for damage and repair any damage to internal coating.

8.6 To restart separator, reinstall HD Q-PAC plate packs and polishing pack in original position. Make sure that both are securely in place so that they do not float when unit is operational.

8.7 For start up, repeat steps in section 6 of these instructions.

9.0 TROUBLESHOOTING

Regularly monitor the quality of the effluent leaving the separator. If any loss in effluent quality is observed, steps should be taken to correct the problem immediately. Some things to check if effluent quality has deteriorated are:

1. Have you exceeded the separators rated flow? If so, return the flow rate to the design flow rate.

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2. Have you allowed the sludge to accumulate to a point where it has started to affect the performance of the separator? If so, take steps to have the sludge removed immediately. If it cannot be pumped out, you will have to drain the separator and remove the accumulated sludge.

3. Check the influent for surfactants or chemical emulsifiers. If any are present, you may need additional treatment in order to meet discharge requirements.

4. Are you pumping into the separator? If so, you may be mechanically emulsifying the influent oil. Sample the oil water from both before and after the pump. There should be no differences between the two samples. If you are mechanically emulsifying the oil you may have to change your influent pump to a low RPM positive displacement pump or similar pump that will cut down on shearing.

5. Check to make sure that the oil depth in the separator is not too great, a deep layer of product will reduce the efficiency of the separator. Free product should be removed and the separator put back in service.

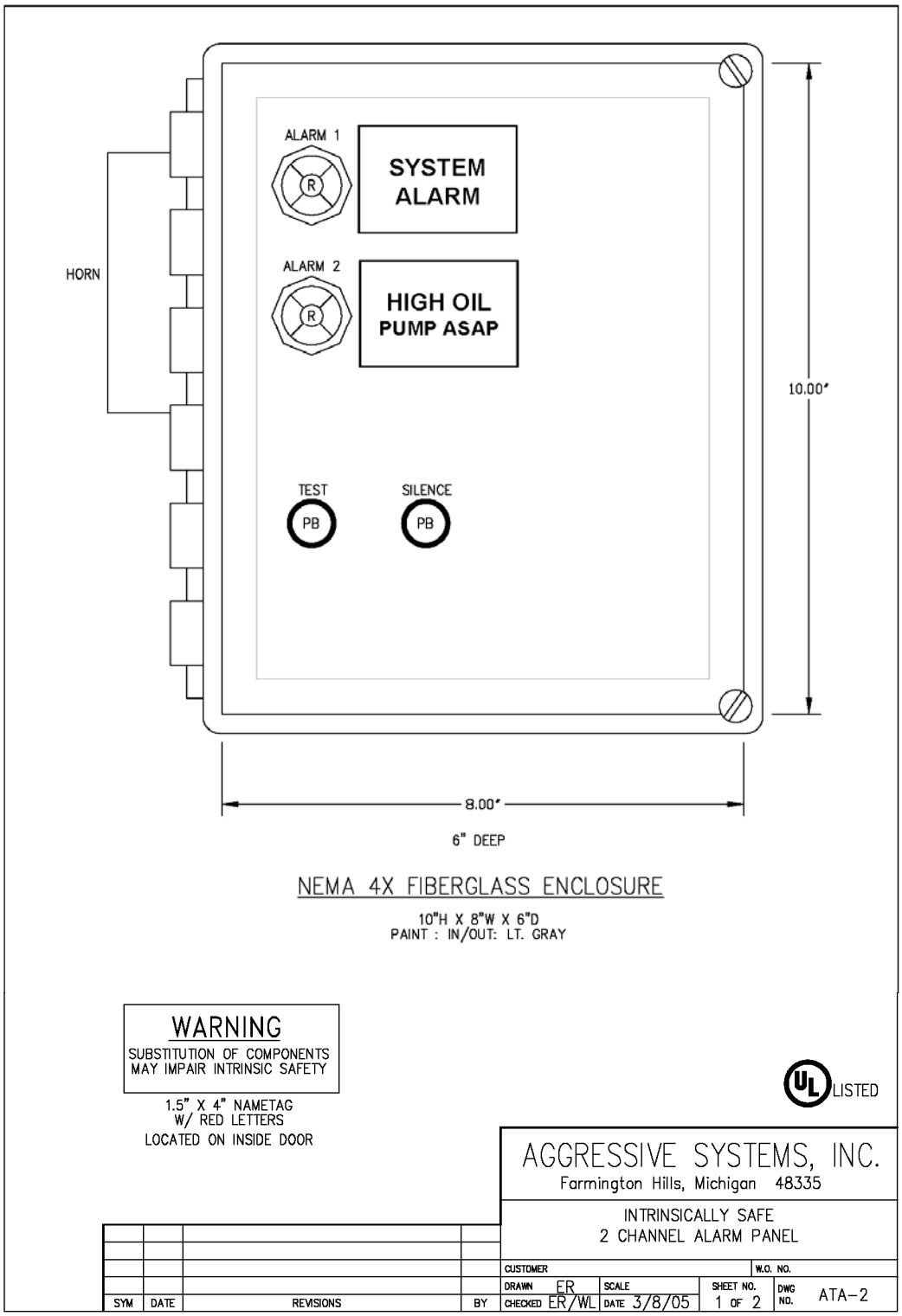
9.1 TROUBLESHOOTING GUIDELINE

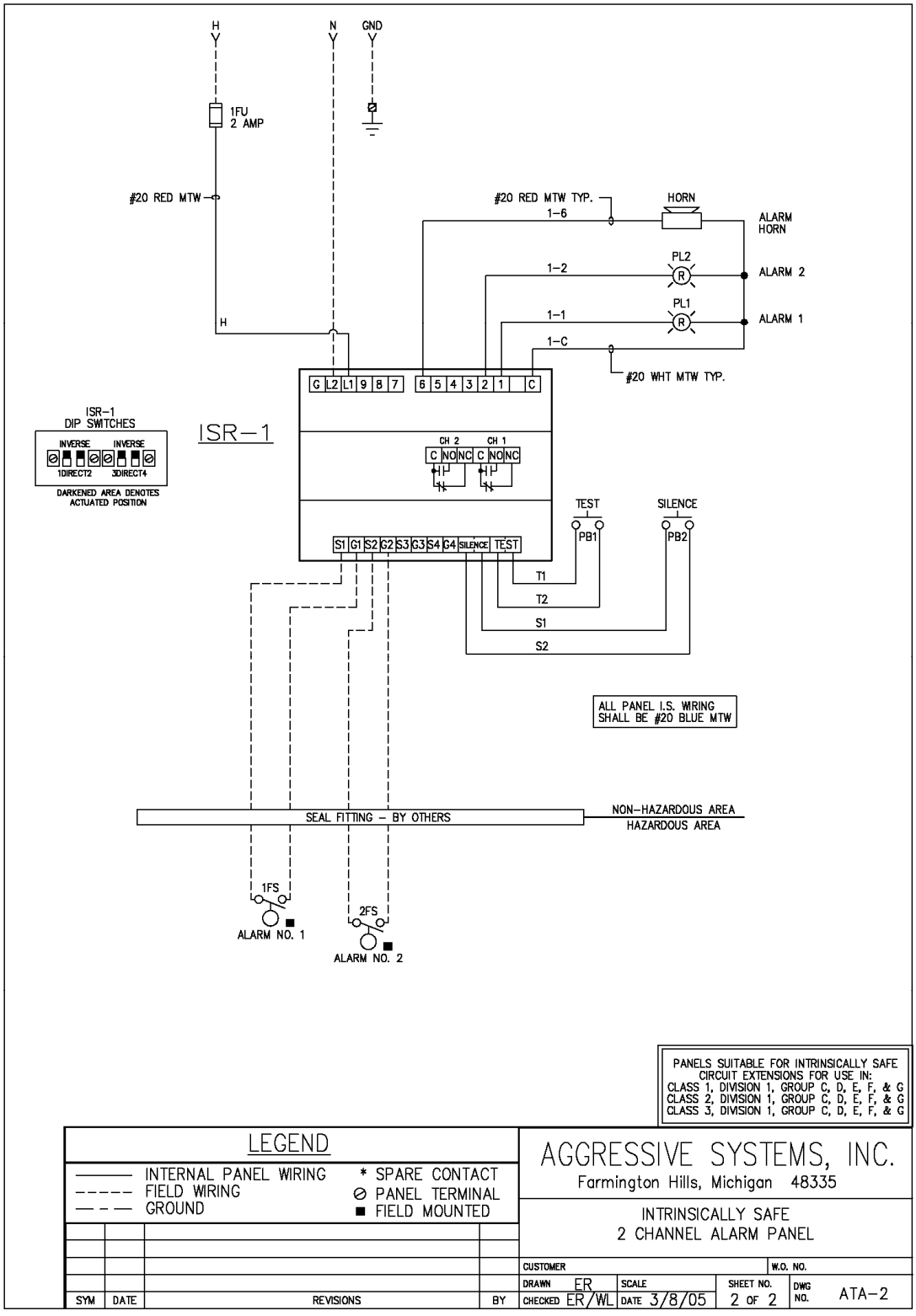
PROBLEM	POSSIBLE CAUSE	DIAGNOSTIC TECHNIQUE	CORRECTIVE ACTION
EFFLUENT CONCENTRATION TOO HIGH	Oil Concentration too Great for Design	Sample Influent	Decrease the Flow Rate
	Flow Too Great For Design	Check Flow	Decrease the Flow Rate
	Plates Blocked	Inspect, Remove Plates if Necessary	Clean Per Par. 8.4 Instructions and Reinstall.
	Solids have Accumulated Into Coalescer Plates	Check Depth of Solids In Coalescer Compartment	Remove Solids From Compartment See Par. 8.3.
TANK IS OVERFLOWING	Output Line Restricted	Check Flow	Remove Restriction

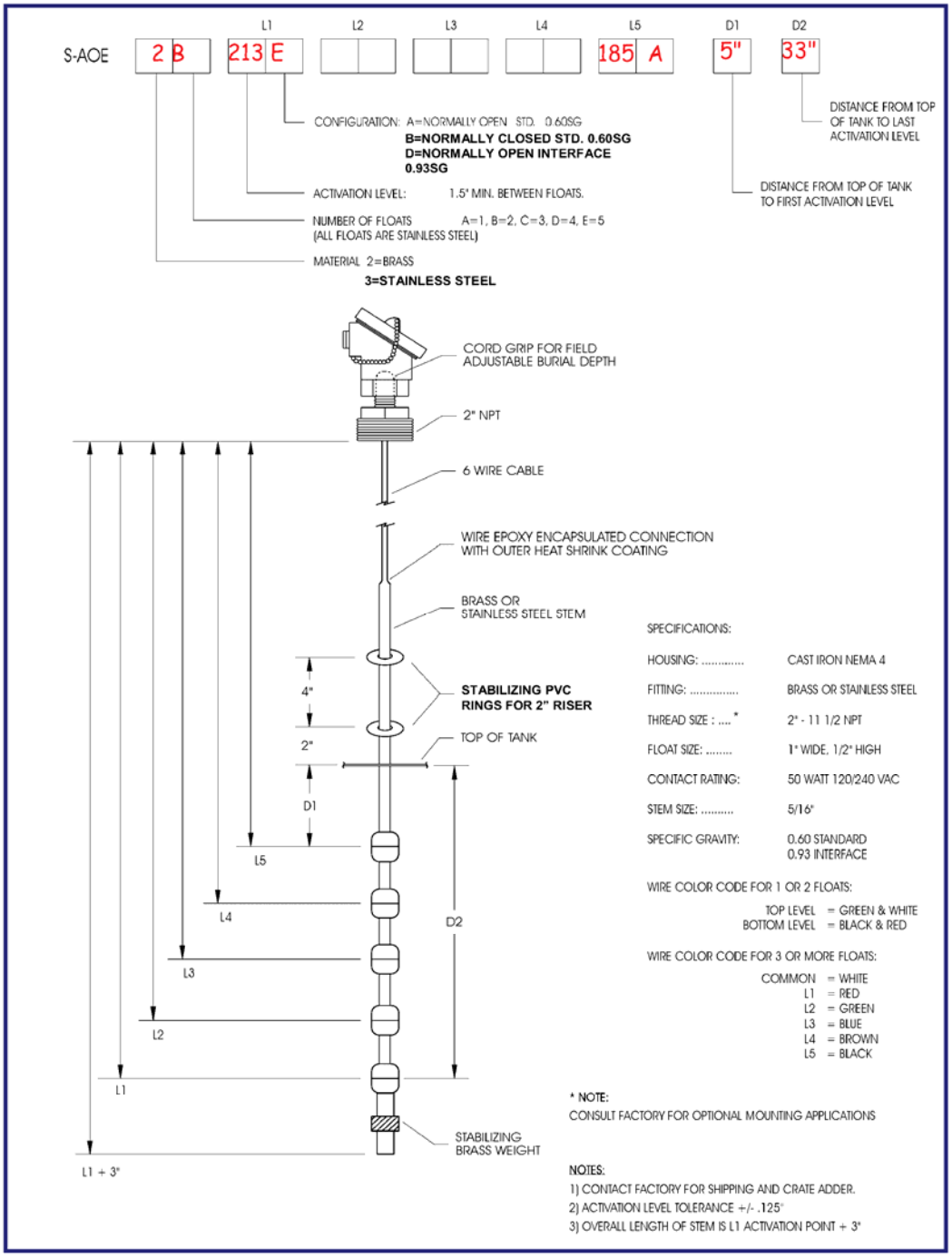
Note: For proper operation, outlet line should be as large as outlet nozzle unless unit is to be operated at very large flows

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AGGRESSIVE SYSTEMS LEVEL PROBE AND ALARM PANEL




H
N
GND
1FU
2 AMP
#20 RED MTW
#20 RED MTW TYP.
1-6
HORN
ALARM HORN
1-2
PL2
ALARM 2
1-1
PL1
ALARM 1
1-C
#20 WHT MTW TYP.
G L2 L1 9 8 7
6 5 4 3 2 1 C
ISR-1
DIP SWITCHES
INVERSE INVERSE
1DIRECT2 3DIRECT4
DARKENED AREA DENOTES ACTUATED POSITION
ISR-1
CH 2 CH 1
C NO NC C NO NC
TEST
SILENCE
PB1
PB2
S1 G1 S2 G2 S3 G3 S4 G4 SILENCE TEST
T1
T2
S1
S2
ALL PANEL I.S. WIRING SHALL BE #20 BLUE MTW
SEAL FITTING - BY OTHERS
NON-HAZARDOUS AREA
HAZARDOUS AREA
1FS
ALARM NO. 1
2FS
ALARM NO. 2
PANELS SUITABLE FOR INTRINSICALLY SAFE CIRCUIT EXTENSIONS FOR USE IN:
CLASS 1, DIVISION 1, GROUP C, D, E, F, & G
CLASS 2, DIVISION 1, GROUP C, D, E, F, & G
CLASS 3, DIVISION 1, GROUP C, D, E, F, & G
LEGEND
INTERNAL PANEL WIRING
FIELD WIRING
GROUND
* SPARE CONTACT
PANEL TERMINAL
FIELD MOUNTED
AGGRESSIVE SYSTEMS, INC.
Farmington Hills, Michigan 48335
INTRINSICALLY SAFE
2 CHANNEL ALARM PANEL
CUSTOMER
W.O. NO.
DRAWN ER
SCALE
SHEET NO. 2 OF 2
DWG NO. ATA-2
CHECKED ER/WL
DATE 3/8/05
SYM DATE REVISIONS BY


S-AOE
2 B
L1
213 E
L2
L3
L4
L5
185 A
D1
5"
D2
33"
CONFIGURATION: A=NORMALLY OPEN STD. 0.60SG
B=NORMALLY CLOSED STD. 0.60SG
D=NORMALLY OPEN INTERFACE
0.93SG
DISTANCE FROM TOP OF TANK TO LAST ACTIVATION LEVEL
ACTIVATION LEVEL: 1.5" MIN. BETWEEN FLOATS.
DISTANCE FROM TOP OF TANK TO FIRST ACTIVATION LEVEL
NUMBER OF FLOATS A=1, B=2, C=3, D=4, E=5
(ALL FLOATS ARE STAINLESS STEEL)
MATERIAL 2=BRASS
3=STAINLESS STEEL
CORD GRIP FOR FIELD ADJUSTABLE BURIAL DEPTH
2" NPT
6 WIRE CABLE
WIRE EPOXY ENCAPSULATED CONNECTION WITH OUTER HEAT SHRINK COATING
BRASS OR STAINLESS STEEL STEM
4"
2"
STABILIZING PVC RINGS FOR 2" RISER
TOP OF TANK
D1
L5
L4
L3
L2
L1
D2
STABILIZING BRASS WEIGHT
L1 + 3"
SPECIFICATIONS:
HOUSING: ..... CAST IRON NEMA 4
FITTING: ..... BRASS OR STAINLESS STEEL
THREAD SIZE : .... * 2" - 11 1/2 NPT
FLOAT SIZE: ..... 1" WIDE, 1/2" HIGH
CONTACT RATING: 50 WATT 120/240 VAC
STEM SIZE: ..... 5/16"
SPECIFIC GRAVITY: 0.60 STANDARD
0.93 INTERFACE
WIRE COLOR CODE FOR 1 OR 2 FLOATS:
TOP LEVEL = GREEN & WHITE
BOTTOM LEVEL = BLACK & RED
WIRE COLOR CODE FOR 3 OR MORE FLOATS:
COMMON = WHITE
L1 = RED
L2 = GREEN
L3 = BLUE
L4 = BROWN
L5 = BLACK
* NOTE:
CONSULT FACTORY FOR OPTIONAL MOUNTING APPLICATIONS
NOTES:
1) CONTACT FACTORY FOR SHIPPING AND CRATE ADDER.
2) ACTIVATION LEVEL TOLERANCE +/- .125"
3) OVERALL LENGTH OF STEM IS L1 ACTIVATION POINT + 3"
AGGRESSIVE Systems, Inc. 24361 Indoplex Circle, Farmington Hills, MI 48335
PHONE (248) 477-5300 FAX (248) 477-5626 WEBSITE: http://www.aggressivesystems.com

WARRICK INTERFACE RELAY

MODEL NUMBER	HAZARDOUS LOCATIONS	MAXIMUM CABLE LENGTH SHALL NOT EXCEED
47 Series	Class I, Group C & D; Class II, Group E, F & G	900 ft. For a Float Sensor 450 ft. For a Probe Sensor

NOTE:

Refer to Series 47 data information for distance recommendations so not to exceed the maximum capacitance or inductance limitations of the control.

Connect line terminals 1FU (fuse block) and L2 (neutral) of the control to incoming single phase (120 vac.) supply line

ALARM SENSOR CONNECTION:

Connect the ALARM 1 sensor to terminals S1 and G1 of the control.

Connect the ALARM 2 sensor to terminals S2 and G2 of the control.

Auxiliary contacts for remote monitoring of the alarm conditions are provided from slave relays for each alarm channel as shown on the wiring diagram. A form "C" contact is provided, a common, normally closed and normally open .The terminals will change states when the function is energized, and return to the normal state when the device is deenergized.

The contacts are isolated load contacts (Dry) and must be wired in series with its load and that series branch circuit connected across a power source compatible with the load.

OPERATING INSTRUCTIONS

If the ALARM 1 sensor closes, an indication light and audible alarm will energize. The audible alarm can be silenced by momentarily depressing the SILENCE pushbutton, however the indication light will remain on until the alarm condition is corrected.

If the ALARM 2 sensor closes, an indication light and audible alarm will energize. The audible alarm can be silenced by momentarily depressing the SILENCE pushbutton, however the indication light will remain on until the alarm condition is corrected.

SYSTEM TEST INSTRUCTIONS:

A normally open TEST pushbuttons are provided on the door of the control box for testing all alarm functions.

When the test pushbutton is depressed, the alarm indicating lights and audible alarm will be energized and the Normal light will deenergize. The audible alarm can be silenced by momentarily depressing the SILENCE pushbutton, however, the light will remain energized until the TEST pushbutton is released.

INSTALLATION AND OPERATION INSTRUSTIONS FOR AGGRESSIVE SYSTEMS, INC. CONTROL PANEL ATA-2

INSTALLATION INSTRUCTIONS

IMPORTANT: Completely read and thoroughly understand these instructions before proceeding to install and wire the control.

Mount control box vertically on wall or other solid structure. The maximum distance between the control box and the location of the electrodes is determined by the sensitivity of the 47 control(s). This information is supplied on Form 470.

INTRINSICALLY SAFE GENERAL INFORMATION

IMPORTANT: BEFORE PROCEEDING TO INSTALL AND WIRE THE ALARM PANEL, READ AND THOROUGHLY UNDERSTAND THESE INSTRUCTIONS.

Experienced personnel should use the following information as a guide to the installation of intrinsically safe alarm panels. Selection or installation of equipment should always be accompanied by competent technical assistance. We encourage you to contact Aggressive Systems, Inc. or its local representative if further information is required.

The control panel contains a U.L. Listed interface relay with Intrinsically Safe Sensing Circuits. The interface relay is Associated Apparatus listed under Process Control equipment, with Intrinsically Safe Outputs for Interface into Division 1 Hazardous Locations. The Circuits are to be connected to any simple non-energy generating or storing device such as a pushbutton, limit, float switch, or any Warrick electrode and fitting assembly.

The control panel is reassembled and ready to wire. Locate the panel in a non-hazardous area where an explosive environment does not exist.

Cabinet and mounting plate to be connected to a good earth ground. For additional guidance on "Hazardous Location Installation," and "Intrinsically Safe Devices," consult ANSI/ISA standard RP 12-6 or NEC ARTICLES 500 through 516.

CAUTION:
Intrinsically safe wiring must be kept separate from non-intrinsically safe wiring. Special procedures have been followed during the manufacturing of these control panels to insure proper spacing. Some models incorporate isolated barriers or covers for this purpose.

A separate rigid metallic conduit should be used to enclose the conductors of the intrinsically safe circuit. Multiple runs of intrinsically safe wiring may be run in the same conduit only where at least 0.25mm (0.010 inch) thick insulation, suitable for the maximum temperature, is used on each conductor. Refer to ANSI/ISA RP 12.6 for details. Conduit or cable, containing the intrinsically safe wiring, shall be sealed in accordance with the National Electrical Code, NFPA No. 70, (approved sealing fitting), where the conduit enters or exits the hazardous locations.

INDUCTANCE AND CAPACITANCE: For intrinsically safe wiring use 16 AWG or 14 QWG TYPE THHN/THHW/THWN or MTW. By using these types of wire in conjunction with a limitation on distance, you will not exceed the maximum capacitance or inductance for field wiring.

Use the following chart as a guide for maximum total length of all the intrinsically safe wiring (of each conductor), excluding any ground wiring.

3.4 Sitrans Flow Sensor

Quick Start Manual · May 2008

English
Dansk
Deutsch
Ελληνικά
Español
Français
Italiano
Nederlands
Português
Suomi
Svenska



million
in one

sitrans

PROBE LU (PROFIBUS PA)

SIEMENS

Safety Guidelines: Warning notices must be observed to ensure personal safety as well as that of others, and to protect the product and the connected equipment. These warning notices are accompanied by a clarification of the level of caution to be observed.

Qualified Personnel: This device/system may only be set up and operated in conjunction with this manual. Qualified personnel are only authorized to install and operate this equipment in accordance with established safety practices and standards.

Unit Repair and Excluded Liability:

- The user is responsible for all changes and repairs made to the device by the user or the user's agent.
- All new components are to be provided by Siemens Milltronics Process Instruments Inc.
- Restrict repair to faulty components only.
- Do not reuse faulty components.

Warning: This product can only function properly and safely if it is correctly transported, stored, installed, set up, operated, and maintained.

This product is intended for use in industrial areas. Operation of this equipment in a residential area may cause interference to several frequency based communications.

Note: Always use product in accordance with specifications.

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- For a selection of Siemens Milltronics level measurement manuals, go to: **www. siemens.com/processautomation**. Under Process Instrumentation, select *Level Measurement* and then go to the manual archive listed under the product family.
- For a selection of Siemens Milltronics weighing manuals, go to: **www. siemens.com/processautomation**. Under Weighing Technology, select *Continuous Weighing Systems* and then go to the manual archive listed under the product family.

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SITRANS Probe LU (PROFIBUS PA) Quick Start Manual

English

This manual outlines the essential features and functions of the SITRANS Probe LU (PROFIBUS PA). We strongly advise you to acquire the detailed version of the manual so you can use your instrument to its fullest potential. The complete manual can be downloaded from the Siemens website at: www.siemens.com/level. The printed manual is available from your local Siemens representative.

Questions about the contents of this manual can be directed to:

Siemens Milltronics Process Instruments Inc.
1954 Technology Drive, P.O. Box 4225
Peterborough, Ontario, Canada, K9J 7B1
Email: techpubs.smpi@siemens.com

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Safety Guidelines

Warning notices must be observed to ensure personal safety as well as that of others, and to protect the product and the connected equipment. These warning notices are accompanied by a clarification of the level of caution to be observed.

⚠ **WARNING: relates to a warning symbol on the product, and means that failure to observe the necessary precautions can result in death, serious injury, and/or considerable material damage.**

! **WARNING[1]: means that failure to observe the necessary precautions can result in death, serious injury, and/or considerable material damage.**

Note: means important information about the product or that part of the operating manual.

1. This warning symbol is used when there is no corresponding caution symbol on the product.

English

SITRANS Probe LU (PROFIBUS PA)

! WARNING: Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate, radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving transducer.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a different circuit from the one to which the receiver is connected.
- Consult an experienced radio/TV technician for help.

Note: This product is intended for use in industrial areas. Operation of this equipment in a residential area may cause interference to several frequency based communications.

SITRANS Probe LU is a 2-wire loop-powered, continuous level monitor that uses advanced ultrasonic techniques. The instrument consists of an electronic component coupled to the transducer and process connection.

The transducer is available in ETFE (ethylene-tetrafluoroethylene) or PVDF (polyvinylidene fluoride), allowing SITRANS Probe LU to be used in a wide variety of industries and applications using corrosive chemicals.

The ultrasonic transducer contains a temperature-sensing element to compensate for temperature changes in the application.

Communication is via PROFIBUS PA. This device supports acyclic communications from both a PROFIBUS Class I and Class II master. Signals are processed using Sonic Intelligence® which has been field-proven in over 500,000 applications worldwide (ultrasonic and radar).

SITRANS Probe LU is available in three versions:

- General Purpose (non-hazardous)
- Intrinsically Safe (with suitable barrier)
- Non-Incendive (FM Class I, Div. 2)

Specifications

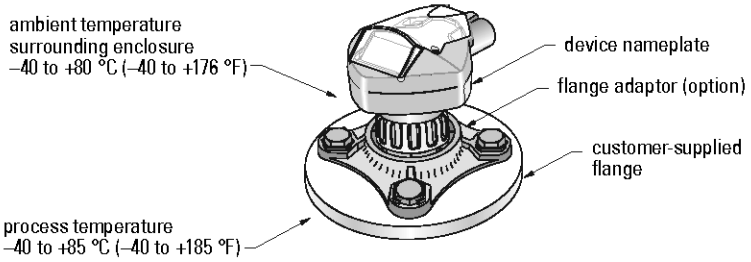
For a complete listing, see the SITRANS Probe LU (PROFIBUS PA) Instruction Manual. For Approvals information, please refer to the device nameplate[1].

1. The device nameplate is shown on the inside front cover of this manual.

English

Ambient/Operating Temperature

Note: Process temperature and pressure capabilities are dependent upon information on the device nameplate. The reference drawing listed on the nameplate can be downloaded from the Siemens website. Go to the SITRANS Probe LU product page at: http://pia.khe.siemens.com/index.asp?Nr=11157.



Power

- Bus powered — On PROFIBUS PA, as per IEC 61158-2
- Current consumed — 12 mA (default value)[1]

Performance

- Update time with 12 mA loop current[1] — 6.0 s (typical), maximum 16.0 s[2]

Approvals

- General — $CSA_{US/C}$, FM, CE
- Hazardous

Intrinsically Safe	(Europe)	ATEX II 1 G EEx ia IIC T4	
	(US/Canada)	FM[3] (pending) /CSA[3]: barrier required	
		Class I, Div. 1, Groups A, B, C, D	
		Class II, Div. 1, Groups E, F, G	
		Class III	T4
Non-incendive	(US)	FM[4] (pending):	
		Class I, Div. 2, Groups A,B, C, D	T5

Note: The use of approved watertight conduit hubs/glands is required for Type 4X/ NEMA 4X, Type 6/NEMA 6, IP67, IP68 (outdoor application).

1. For 13, 15, or 20 mA options, see *PROFIBUS Current Consumption* on page 13.
2. Temperature dependent: typical value at +20 °C (+68 °F); max. value at +80 °C (+176 °F).
3. See *FM/CSA Intrinsically Safe Connection Drawing* on page 1 of Appendix A, for drawing number 23650617.
4. See *FM: Class I, Div. 2 Connection Drawing* on page 5 of Appendix A, for drawing number 23650583.

English

Installation

WARNINGS:

- **Installation shall only be performed by qualified personnel and in accordance with local governing regulations.**
- **SITRANS Probe LU is to be used only in the manner outlined in this manual, otherwise protection provided by the equipment may be impaired.**

Note: Please refer to the device nameplate for approval information.

Mounting location

Recommendations

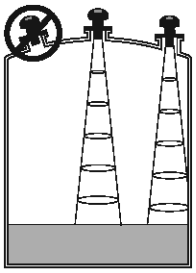
- Ambient temperature should be within –40 to +80 °C (–40 to +176 °F).
- Provide easy access for viewing the display and programming via the handheld programmer.
- Provide an environment suitable to the housing rating and materials of construction.
- Keep the sound path perpendicular to the material surface.

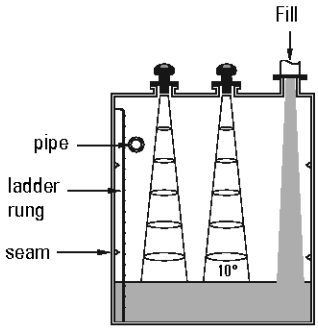
Precautions

- Avoid proximity to high voltage or current wiring, high voltage or current contacts, and to variable frequency motor speed controllers.
- Avoid interference to the sound path from obstructions or from the fill path.

The sound path should be:

- perpendicular to the monitored surface
- clear of rough walls, seams, rungs, or other obstructions
- clear of the fill path





English

Mounting instructions

Note: Ideally, mount SITRANS Probe LU so that the face of the transducer is at least 300 mm (1 ft) above the highest anticipated level.

SITRANS Probe LU is available in three thread types: 2" NPT, 2" BSP, or PF2/G (BS EN ISO 228-1).

1. Before inserting SITRANS Probe LU into its mounting connection, ensure that the threads are of the same type to avoid damaging them.
2. Simply screw SITRANS Probe LU into the process connection and hand tighten.

Wiring

Power

WARNINGS:

⚠ **DC terminals shall be supplied from an SELV[1] source in accordance with IEC-1010-1 Annex H.**

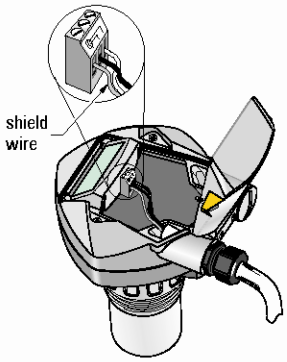
! **All field wiring must have insulation suitable for rated voltages.**

Connecting SITRANS Probe LU (PROFIBUS PA)

Note:

- For detailed wiring instructions, please see the full manual.
- For Intrinsically Safe setups (FM/CSA Class I, Div. 1), see *FM/CSA Intrinsically Safe Connection Drawing* on page 1 of Appendix A, for drawing number 23650617.
- For Non-Incendive setups (FM: Class I, Div. 2), see *FM: Class I, Div. 2 Connection Drawing* on page 5 of Appendix A, for drawing number 23650583.
- The non-metallic enclosure does not provide a continuous ground path between conduit connections: use grounding-type bushings and jumpers.
- Separate cables and conduits may be required to conform to standard instrumentation wiring practices, or electrical codes.

1. Strip the cable jacket for approximately 70 mm (2.75") from the end of the PROFIBUS PA cable, and thread the wires through the gland[2].
2. Connect the wires to the terminal as shown: Probe LU (PROFIBUS PA) is not polarity-sensitive.



1. Safety Extra Low Voltage
2. If cable is routed through conduit, use only approved suitable-size hubs for waterproof applications.

English

3. Ground the instrument according to local regulations.
   - For Intrinsically Safe applications, connect the cable shield to the instrument shield connection[1], and ground the shield connection to an external ground that is connected to an equal-potential grounding grid. For more detail on Explosion Protection, you can download the brochure *Siemens Process Automation Explosion Protection* (part number A5E00265440) from www.siemens.com/level, under Brochures/General.
   - For General Purpose applications, ground the shield at one point only (usually the power supply side) and continue the shield from device to device, connecting it to the shield connection in each Probe LU.
4. Tighten the gland to form a good seal.
5. Close the cover and tighten screws: **please do not overtighten screws.** Recommended torque is 0.5 to 1.1 N-m (5 to 10 in-lb).

Note: PROFIBUS PA must be terminated at both extreme ends of the cable for it to work properly. Please refer to the *PROFIBUS PA User and Installation Guidelines* (order number 2.092), available from www.profibus.com.

Communications via PROFIBUS PA

Notes:
- The following instructions assume that the user is familiar with PROFIBUS PA.
- For a complete list of applicable parameters, please see the full manual.

Configuring the PROFIBUS PA master

To configure SITRANS Probe LU on the network, you will need the GSD file. You can download the files (**SIEM8124.gsd** for the 6 m Probe LU, or **SIEM8123.gsd** for the 12 m Probe LU) from our web site. Go to the SITRANS Probe LU product page at: https://pia.khe.siemens.com/index.asp?Nr=11157 and click **Downloads**.

Startup

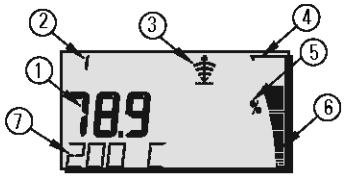
SITRANS Probe LU automatically starts up in **RUN** mode, and detects the material level. The LCD displays the material level referenced from the Low Level Point[2] (the output of Analog Input Function Block1/AIFB1). System status is displayed on the LCD, or on a remote communications terminal.

1. The instrument shield connection is internally connected to the external ground lug.
2. See *Quick Setup* on page 11 for an illustration.

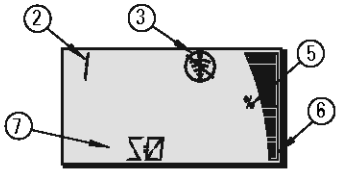
English

Startup Display (RUN mode)

Normal operation



Failsafe operation



1 – Primary region displays material level (Output of the active AIFB)

2 – Menu number (displays the number of the active AIFB: 1 or 2)

3 – Echo status indicator: Reliable Echo or Unreliable Echo

(The Unreliable Echo border flashes if Loss of Echo (LOE) is pending[1]. When LOE becomes active, the border is solid and the secondary region displays **S :0.**)

4 – Bar graph border (always visible in RUN mode)

5 – Units or Percent

6 – Active bar graph represents material level

(The lowest bar flashes once per second as a heartbeat.)

7 – Secondary region displays one of the following:

- Internal electronics temperature
- Value representing echo confidence
- Distance (Secondary Value 2)
- General status information, or a fault code (see the full manual for a list of fault codes and their meanings)

Programming SITRANS Probe LU (PROFIBUS PA)

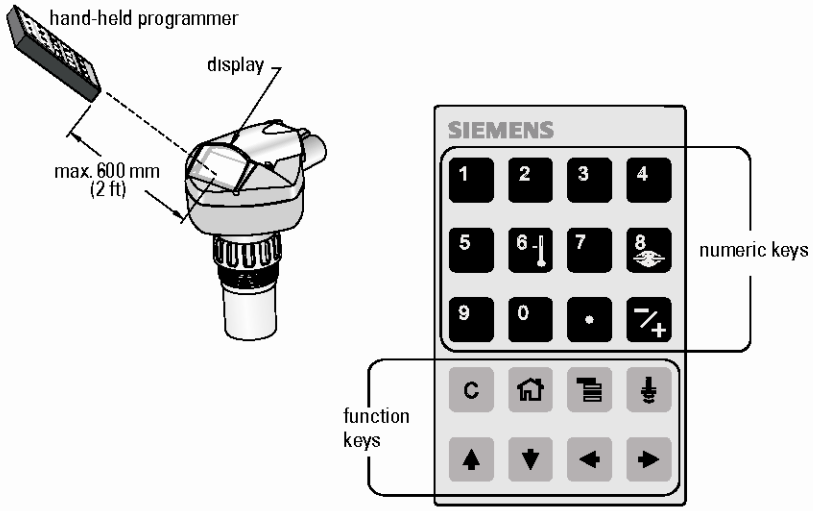
The parameters that control the operation of the Probe LU (PROFIBUS PA) are organized into function groups, and arranged in a 4-level menu structure that can be accessed either via the handheld programmer, or via PDM and PROFIBUS PA. (For charts showing the complete menu structure, refer to the full manual.)

1. For more details on Loss of Echo, refer to the full manual.

English

The handheld programmer[1]

To activate PROGRAM mode, point the handheld programmer at the display from a maximum distance of 600 mm (2 ft), and press the Mode key .

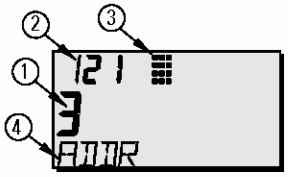


Within Program Mode, the handheld programmer has two modes of operation: Navigation and Edit.

- Press the Mode key to switch from RUN to PROGRAM and enter Navigation Mode: the rightmost digit of the menu number flashes and the PROGRAM icon is not visible.
- Press Right arrow a second time to change the mode from Navigation to Edit.
- In Edit mode, the PROGRAM icon appears and flashes.

PROGRAM Mode Display

Note: SITRANS Probe LU (PROFIBUS PA) continues to monitor In and Out values even when the device is in PROGRAM mode.



1 – Primary region (displays parameter value)
2 – Menu number region (displays Menu number)
3 – PROGRAM mode icon
4 – Secondary region (displays text label)

1. For complete instructions on local programming using the handheld programmer, please see the full manual.

English

When you activate PROGRAM mode for the first time in any power cycle, the LCD displays the first menu. If, during the same power cycle, you switch to RUN mode, and then back to PROGRAM mode, the LCD will display the menu or item that was last accessed in PROGRAM mode.

Security

Local operation enable

Local Operation can be enabled or disabled via PDM. Go to **Identification > Device > Local Operation Enable** and select the desired setting.

Write Locking

Write locking prevents any changes to parameters via PDM or via the handheld programmer, but still allows access to the device.

Via PDM, open the menu **Device – Write Locking**, and select **Off** or **On**.

Hand programmer values	2457 (unlock value)	Off	Enables parameter changes
	any other value	On	Disables parameter changes

Via the handheld programmer:

- Open **Identification** Menu, then scroll down to CONFIG.
- Press **Right ARROW** to open the Config Menu, then scroll down to LOCK.

1. Identification
1.3. Configuration
1.3.5. Lock

- To enable programming, set LOCK to **2457**. To disable programming, enter any other value.

Remote operation enable

Remote Operation can be enabled or disabled via the handheld programmer.

Values	**0**	Off	Remote operation enabled.
	1	On	Remote operation disabled.

- Open **Identification** Menu, then scroll down to CONFIG.
- Press **Right ARROW** to open the Config Menu, then scroll down to REMLOCK.

1. Identification
1.2. Configuration
1.2.2. Remote Lockout

- To enable programming, set REMLOCK to **0**. To disable programming, enter **1**.

Master Reset

In PDM, open the menu **Device – Master Reset**, to access the reset options, including Factory Reset.

English

Activating SITRANS Probe LU

Note: Keep infrared devices such as laptops, cell phones, and PDAs, away from SITRANS Probe LU (PROFIBUS PA) to prevent inadvertent operation.

Power up the instrument. SITRANS Probe LU (PROFIBUS PA) starts in **RUN** mode, and the LCD displays the output of AIFB1.

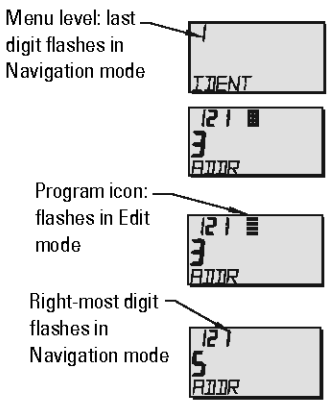
Network Address (default 126)

Verifying/changing the device address via the handheld programmer

Notes:

- Local programming must be enabled, to allow changes (see *Local operation enable* on page 9).
- **CLEAR** [c] can be used to clear the field.
- Press **Right ARROW** [►] to open Edit mode: the PROGRAM icon flashes.
- Press **Left ARROW** [►] to cancel Edit mode: the Menu number flashes (the PROGRAM icon is not visible).

1. Press **Mode** [■] to activate **PROGRAM** mode and open Menu level 1.
2. Press **Right ARROW** [►] twice to navigate to PROFIBUS Address.
3. Press **Right ARROW** [►] again to open Edit mode: the PROGRAM icon will flash.
4. Key in a new value and press **Right ARROW** [►] to accept it. (The LCD displays the new value, PROGRAM icon disappears, and the last menu digit flashes to indicate Navigation mode.)
5. Press Mode [■] to return to RUN mode.



Performing calibration via PROFIBUS PA

To use PROFIBUS PA, you will need a PC configuration tool: we recommend SIMATIC PDM. Please consult the operating instructions or online help for details on using SIMATIC PDM. (An Application Guide *SMPI PROFIBUS PA instruments and SIMATIC PDM* is available on our website at: https://pia.khe.siemens.com/index.asp?Nr=11157.)

English

Changing parameter settings

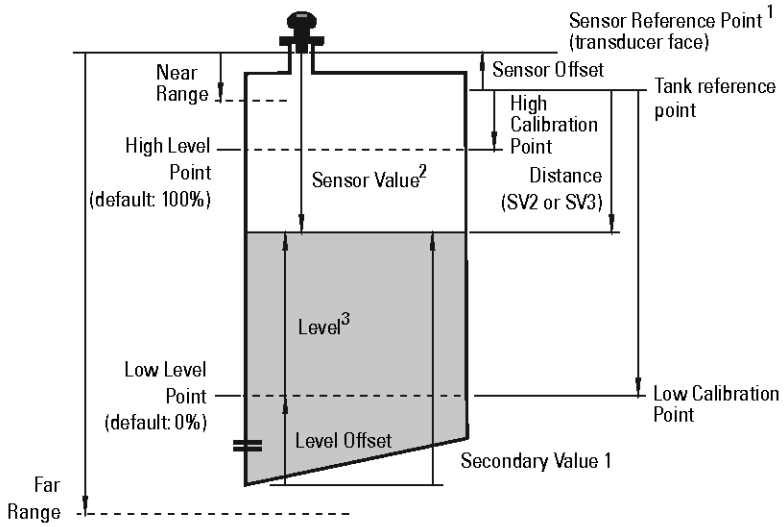
- First launch SIMATIC PDM, connect to SITRANS Probe LU (PROFIBUS PA), and upload data from the device.
- Adjust parameter values in the parameter view field (right side of screen).
- After adjusting the value, press **Enter** (the status fields read **Changed**).
- When you have completed the adjustments, open the **Device** menu, download data to the device, and save parameter settings offline (the status fields go blank).

Quick Setup

Only four settings are required for a Quick Setup:

- High Calibration Point and High Level Point
- Low Calibration Point and Low Level Point

Primary Variable (PV) will be level (SV1). SV1 (Secondary Value 1) is the sum of Level plus Level Offset (if any).



1. Sensor Reference Point: the point to which all of the above parameters are referenced.
2. Sensor Value: the value produced by the echo processing, which represents the distance from the Sensor Reference Point to the target.
3. Level Value: the level measured in level units.

English

Calibration

1. Open the menu **Device – Sensor Calibration** and select the tab **Dry Calibration.** (Click on **Additional Information** to see the schematic showing the PROFIBUS parameters.)
2. Enter the new value for Low Calibration Point (default units are meters).
3. Enter the corresponding value for Low Level Point in percent (default is 0).
4. Enter the new value for High Calibration Point (default units are meters).
5. Enter the corresponding value for High Level Point in percent (default is 100).
6. Click on **Transfer**.
7. SITRANS Probe LU is now ready to operate.

Auto False Echo Suppression

Enables a "learned" TVT curve to be used in place of the default TVT curve. Use this feature to ignore false echoes on the echo profile. Set Range (Auto False Echo Suppression Distance) first, then set Auto False Echo Suppression.

Range (Auto False Echo Suppression Distance)[1]: (default 1)

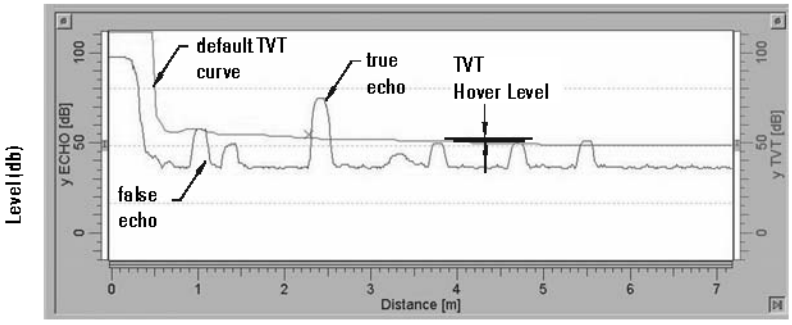
Defines the endpoint of the Learned TVT distance.

1. Rotate the instrument for best signal (lower false-echo amplitude).
2. Go to **Input > Detailed Setup > TVT setup > Distance**.
3. Determine the actual distance from the reference point (transducer face) to the material surface.
4. Subtract 0.5 m (20") from this distance, and enter the result.

Set Auto False Echo Suppression

1. Open the menu **Device – Auto False Echo Suppression** and select the option to change it.
2. Select **Learn.** The device will automatically revert to **On** (Use Learned TVT) after a few seconds.

Display before Auto False Echo Suppression

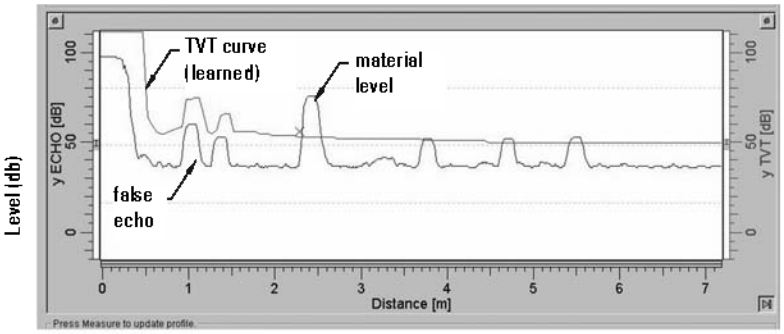


Distance (meters)

1. This parameter cannot be reset to the factory default.

English

Display after Auto False Echo Suppression



Distance (meters)

PROFIBUS Current Consumption

Warning: This parameter should be modified only once at installation, to match the design criteria of the network.

Allows you to select the PROFIBUS device current. Higher values allow faster update rates.

Values		Loop current	Update time[1]
0	*	12 mA	6.0 s (typical), maximum 16.0 s
1		13 mA	5.0 s (typical), maximum 14.0 s
2		15 mA	3.7 s (typical), maximum 8.0 s
3		20 mA	2.4 s (typical), maximum 4.0 s

Go to **Input > Standard Setup > PROFIBUS Current Consumption**, and enter the value corresponding to the desired device current.

Maintenance

SITRANS Probe LU requires no maintenance or cleaning.

Unit Repair and Excluded Liability

For detailed information, please see the inside back cover.

1. Temperature dependent: typical value at +20 °C (+68 °F); maximum value at +80 °C (+176 °F).

English

Instructions specific to hazardous area installations (Reference European ATEX Directive 94/9/EC, Annex II, 1/0/6)

The following instructions apply to equipment covered by certificate number SIRA 03ATEX2142X:

1. For use and assembly, refer to the main instructions.
2. The equipment is certified for use as Category 1G equipment.
3. The equipment may be used with flammable gases and vapors with apparatus group IIC and temperature class T4.
4. The equipment is certified for use in an ambient temperature range of –40 °C to 80 °C.
5. The equipment has not been assessed as a safety related device (as referred to by Directive 94/9/EC Annex II, clause 1.5).
6. Installation and inspection of this equipment shall be carried out by suitably trained personnel in accordance with the applicable code of practice (EN 60079-14 and EN 60079-17 in Europe).
7. Repair of this equipment shall be carried out by suitably trained personnel in accordance with the applicable code of practice (e.g. EN 60079-19 within Europe).
8. Components to be incorporated into or used as replacements in the equipment shall be fitted by suitably trained personnel in accordance with the manufacturer's documentation.
9. It is the responsibility of the user to ensure that manual override is possible in order to shut down the equipment and protective systems incorporated within automatic processes which deviate from the intended operating conditions, provided that this does not compromise safety.
10. The 'X' suffix to the certificate number relates to the following special conditions for safe use:
    a. Parts of the enclosure may be non-conducting and may generate an ignition-capable level of electrostatic charge under certain extreme conditions. The user should ensure that the equipment is not installed in a location where it may be subjected to external conditions (such as high-pressure steam) which might cause a build-up of electrostatic charge on non-conducting surfaces.
    b. As either Aluminum, Magnesium, Titanium or Zirconium may be used at the accessible surface of the equipment, in the event of rare incidents, ignition sources due to impact and friction sparks could occur. This shall be considered when the SITRANS Probe LU (PROFIBUS PA) is being installed in locations that specifically require group II, category 1G equipment.

11. The certification of this equipment relies upon the following materials used in its construction:

    Aluminum alloy ANSI ref. A380.0 (aluminum enclosure option)
    STYCAST[1] 2651-40FR encapsulant, catalyst II

    The detailed composition of Aluminum A380.0 as used in the metal enclosure (threaded lid option only) is as follows:

    Si – 8.5%, Fe – 1.3%, Cu – 3.5%, Mn – 0.5%, Mg – 0.1%, Ni – 0.1%, Zn – 3%, Sn – 0.35%, others – 0.5%, Al - balance

    If the equipment is likely to come into contact with aggressive substances, then it is the responsibility of the user to take suitable precautions that prevent it from being adversely affected, thus ensuring that the type of protection is not compromised.

    Aggressive substances: e.g. acidic liquids or gases that may attack metals, or solvents that may affect polymeric materials.
    Suitable precautions: e.g. regular checks as part of routine inspections or establishing from the material's data sheet that it is resistant to specific chemicals.

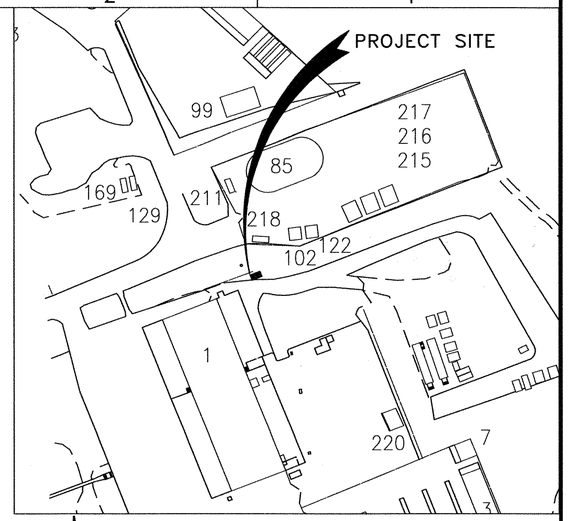
12. **Equipment Marking:**

    The equipment marking contains at least the information on the product label, shown on the inside front cover of this manual.

1. STYCAST® is a registered trademark of the National Starch and Chemical Company.

OIL/WATER SEPARATOR DESIGN AND INSTALLATION

BLDG. 1 TA-60



LOCATION PLAN
SCALE: NONE TA-60

PROJECT DESIGN DATA

GENERAL

LANL ENGINEERING MANUAL.
LANL DRAFTING MANUAL.
INTERNATIONAL BUILDING CODE

ELECTRICAL

NATIONAL ELECTRICAL CODE

LIST OF DRAWINGS

REVISION NUMBER	SHEET NUMBER	DISCIPLINE SHEET NUMBER	DRAWING TITLE
0	1	G-0001	TITLE SHEET
0	2	C-0001	LEGEND
0	3	C-1000	SITE PLAN AND OIL/WATER SEPARATOR DRAIN LINE PROFILE
0	4	C-3000	UTILITY TRENCH SECTIONS
0	5	C-5000	SANITARY SEWER PORT-CLEANOUT DETAIL
0	6	C-5001	MISCELLANEOUS DETAILS
0	7	E-0001	ELECTRICAL LEGEND
0	8	E-1000	PARTIAL FIRST FLOOR PLAN - ELECTRICAL
0	9	E-5000	LEVEL SENSOR FLOATS AND DISCHARGE FLOW METER INSTALLATION DETAIL
0	10	E-6000	ALARM PANEL HIGH & HIGH LEVEL WITH LEAK DETECT DIAGRAM
0	11	E-6001	FLOW METER DIAGRAM
0	12	E-7000	PANEL SCHEDULE - LP-3

PRODUCT OPTIONS AND SUBSTITUTIONS

"OR APPROVED EQUAL" IS ALWAYS APPLIED AFTER A BRAND NAME, PATENTED PROCESS OR CATALOG NUMBER. THE CONTRACTOR MAY SUBSTITUTE ANY BRAND OR PROCESS APPROVED AS AN EQUAL BY SPECIFYING ARCHITECT/ENGINEER. THE ONLY EXCEPTION IS WHERE "NO SUBSTITUTION" IS SPECIFIED. SEE GENERAL PROVISION "MATERIAL AND WORKMANSHIP".

LANL BUILDING OFFICIAL
by RAtrout
105567
DATE 5-7-09
BLDG 09-0019
APPROVED
REVIEWED FOR LANL STANDARDS COMPLIANCE PER ISD 341 - 2, C-1.10

NO	DATE	CLASS REV	ADC	DESCRIPTION	DWN	DSGN	CHKD	SUB	APP

ENGINEERING SERVICES

OIL/WATER SEPARATOR DESIGN AND INSTALLATION

TITLE SHEET

DRAWN D. YARDMAN
DESIGN D. YARDMAN
CHECKED J. GURULE
DATE 5.6.09

BLDG 1 TA-60

SUBMITTED STEVE DIAMOND
APPROVED FOR RELEASE TERRENCE CONNORS

Los Alamos NATIONAL LABORATORY
PO Box 1663
Los Alamos, New Mexico 87545

SHEET G-0001
1 OF 12

CLASSIFICATION: U ADC: DONALD YARDMAN DATE: 05/06/09

PROJECT ID 102235
DRAWING NO C54828
REV 0

LEGEND

EXISTING FEATURES	
EXISTING FEATURES TO BE REMOVED	
EXISTING PRIMARY CONTOURS	6810
EXISTING SECONDARY CONTOURS	
EXISTING CHAIN LINK FENCE	
EXISTING WATER LINE	W
EXISTING SANITARY SEWER LINE	SS
EXISTING TELEPHONE LINE	T
EXISTING UNDERGROUND POWER LINE	UE
NEW FEATURES	
NEW SANITARY SEWER LINE	SS

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PERMIT NO. 09-0019
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NO	DATE	CLASS REV	ADC	DESCRIPTION	DWN	DSGN	CHKD	SUB	APP

ENGINEERING SERVICES

OIL/WATER SEPARATOR DESIGN AND INSTALLATION

LEGEND

BLDG 1 TA-60

DRAWN	D. YARDMAN
DESIGN	D. YARDMAN
CHECKED	J. GURULE
DATE	5.6.09

SUBMITTED
STEVE DIAMOND

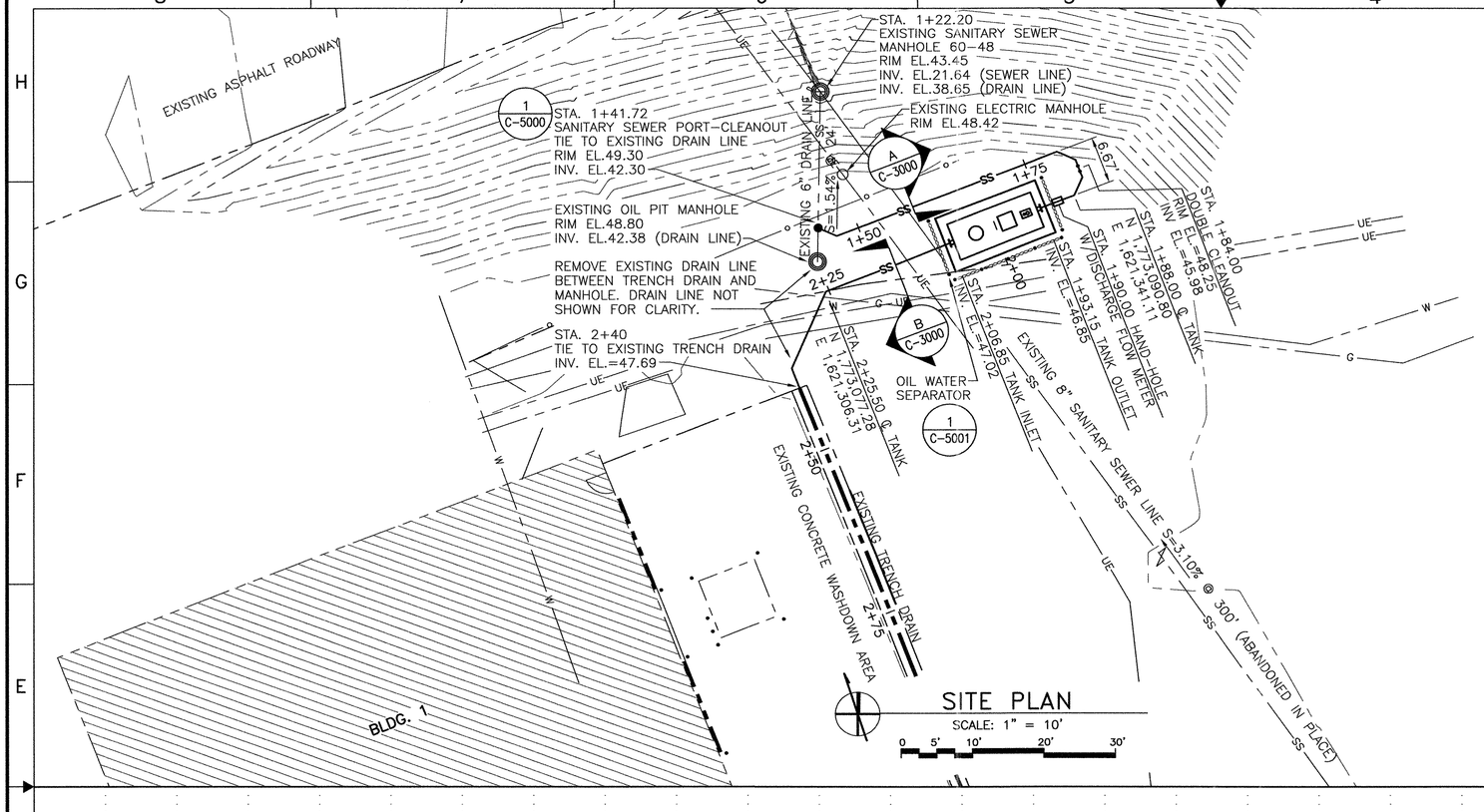
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SHEET C-0001
2 OF 12

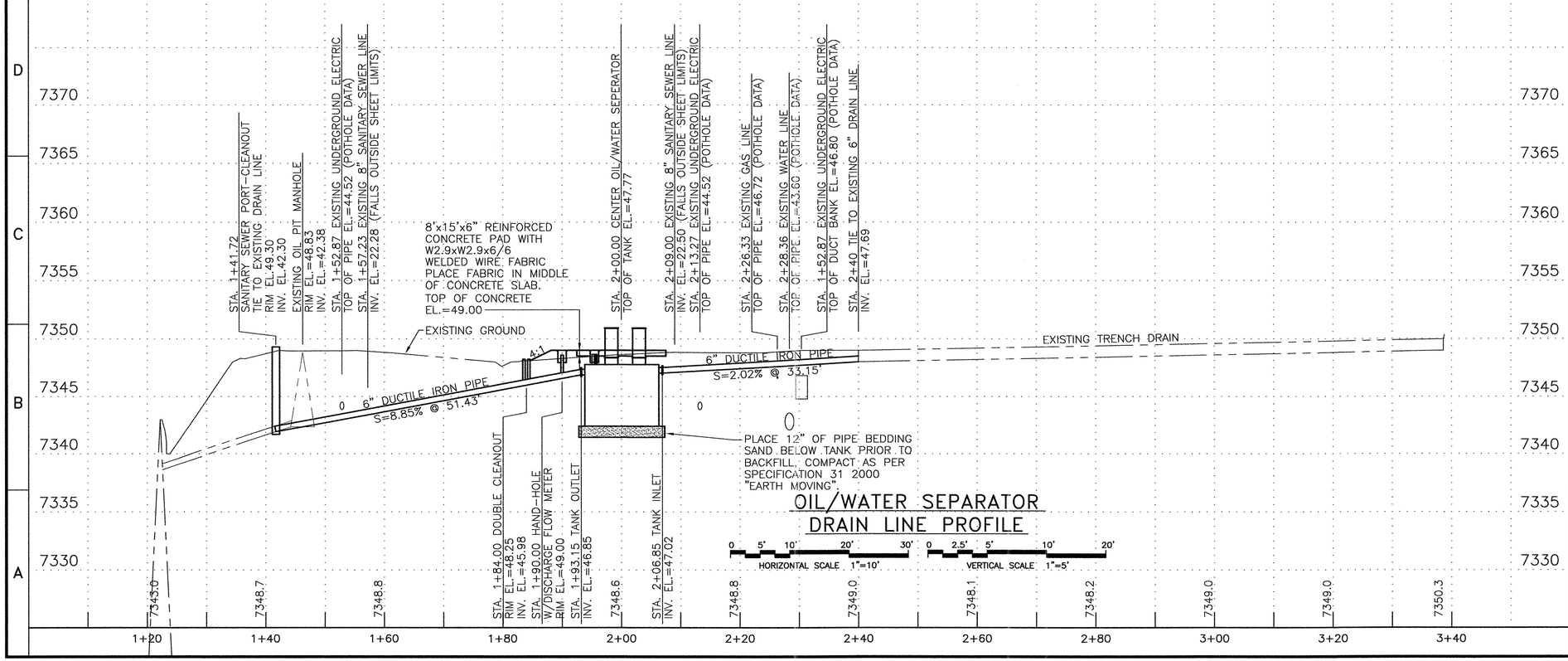
CLASSIFICATION: U ADC: DONALD YARDMAN DATE: 05/06/09

PROJECT ID	DRAWING NO	REV
102235	C54828	0



GENERAL NOTES

1. FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
2. IF THIS SHEET IS NOT 24"x36", THEN IT IS A REDUCED SIZE PLOT. USE GRAPHIC SCALE ACCORDINGLY.
3. EXISTING UTILITY LOCATIONS ARE APPROXIMATE ONLY AND SHALL BE FIELD LOCATED PRIOR TO CONSTRUCTION.
4. TIE TO OIL/WATER SEPARATOR TANK INLET AND OUTLET SHALL BE MADE WITH A SEALED FLANGE CONNECTION.
5. ALL PIPE BENDS SHALL BE LONG RADIUS BENDS AS SHOWN ON THE PLAN, 90° BENDS SHALL NOT BE PERMITTED.
6. SEE SHEETS E-1000 AND E-5000 FOR INSTALLATION OF LEVEL SENSOR, DISCHARGE FLOW METER, AND OTHER ELECTRICAL SYSTEM FEATURES.
7. OIL/WATER SEPARATOR AND ASSOCIATED MANWAYS ARE "GFE" EQUIPMENT, AND ARE STORED AT THE PROJECT SITE.



OIL/WATER SEPARATOR DRAIN LINE PROFILE

HORIZONTAL SCALE 1"=10' (0 5' 10' 20' 30')
VERTICAL SCALE 1"=5' (0 2.5' 5' 10' 20')

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TO RA Trout
ID 105567
DATE 5-7-09
PERMIT 09-0019
APPROVED
REVIEWED FOR LANL STANDARDS COMPLIANCE PER ISD 341-2, CH 18

NO	DATE	CLASS REV	ADC	DESCRIPTION	DWN	DSGN	CHKD	SUB	APP

ENGINEERING SERVICES

OIL/WATER SEPARATOR DESIGN AND INSTALLATION

SITE PLAN AND OIL/WATER SEPARATOR DRAIN LINE PROFILE

BLDG 1 TA-60

DRAWN	D. YARDMAN		
DESIGN	D. YARDMAN		
CHECKED	J. GURULE		
DATE	5-6-09		

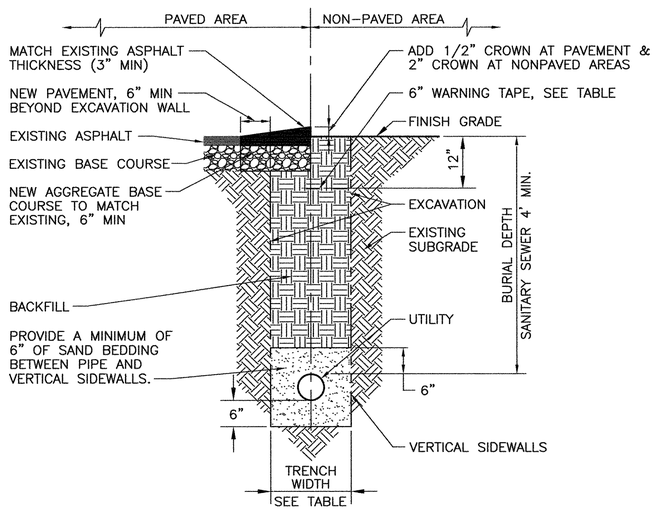
SUBMITTED STEVE DIAMOND 5/7/09
APPROVED FOR RELEASE TERRENCE CONNORS 5/7/09

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PO Box 1663
Los Alamos, New Mexico 87545

SHEET C-1000
3 OF 12

CLASSIFICATION: U ADC: DONALD YARDMAN DATE: 05/06/09

PROJECT ID	DRAWING NO	REV
102235	C54828	0



A C-1000 UTILITY TRENCH SECTION

TYPICAL OF PIPE INSTALLATION ON OUTLET SIDE OF HOLDING TANK.

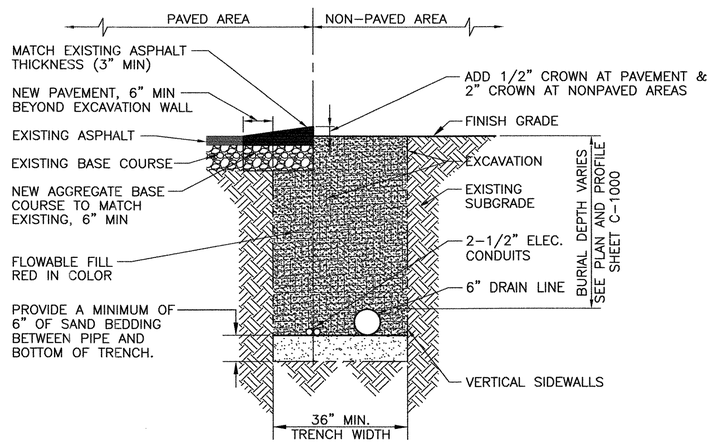
SCALE: NONE

WARNING TAPE TABLE

UTILITY TAPE	COLOR
SEWER	GREEN
ELECTRIC	RED

TRENCH TABLE

UTILITY	TRENCH WIDTH
6"	30"



B C-1000 B E-1000 UTILITY TRENCH SECTION

TYPICAL OF PIPE INSTALLATION ON INLET SIDE OF HOLDING TANK.

SCALE: NONE

GENERAL NOTES

1. FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.

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105567
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ENGINEERING SERVICES

OIL/WATER SEPARATOR DESIGN AND INSTALLATION

UTILITY TRENCH SECTIONS

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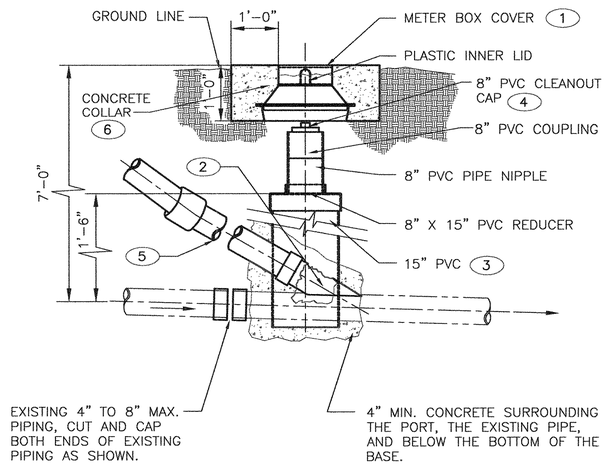
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PO Box 1663
Los Alamos, New Mexico 87545

SHEET C-3000

4 OF 12

CLASSIFICATION: U ADC: DONALD YARDMAN DATE: 05/06/09

PROJECT ID	DRAWING NO	REV
102235	C54828	0



1 / C-1000 SANITARY SEWER PORT-CLEANOUT DETAIL

SCALE: NONE



GENERAL NOTES

1. FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
2. PHOTOGRAPHS PROVIDED ARE FOR REFERENCE ONLY AND DO NOT REPRESENT THE ACTUAL SITE CONDITIONS FOR THIS PROJECT.

KEYED NOTES

(1) METER BOX AND COLLAR SHALL BE SET FLUSH WITH SURROUNDING SURFACE. FORD METER BOX COMPANY, WABASH COVER STYLE W31 WITH WA3L LID MARKED "SEWER".

(2) EXISTING PIPE SHALL BE CUT TO PROVIDE ACCESS. CUT APPROXIMATELY 10" LONG SECTION FROM TOP OF PIPE, 50% OF PIPE DIAMETER, AT FITTING CUT FROM INSIDE OF HUB. LEAVE FITTING HUBS INTACT.

(3) INVERT INSIDE NEW 15" PIPE BARREL SHALL BE FORMED FROM THE CUT OUT SECTION OF EXISTING PIPE AT 2:1 SLOPE.

(4) PORT CLEANOUT CAP TO BE 8" BELOW TOP OF METER BOX COVER.

(5) PORT CLEANOUT CAN BE AT A TIE-IN JUNCTION OR PLACED IN-LINE.

(6) CONCRETE COLLAR TO EXTEND 1 FOOT BEYOND METER BOX.





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SD Without
Z# 105567
DATE 5-7-09
LOG# 09-0019
APPROVED

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NO	DATE	CLASS REV	ADC	DESCRIPTION	DWN	DSGN	CHKD	SUB	APP

ENGINEERING SERVICES

OIL/WATER SEPARATOR DESIGN AND INSTALLATION

SANITARY SEWER PORT-CLEANOUT DETAIL

DRAWN D. YARDMAN
DESIGN D. YARDMAN
CHECKED J. GURULE
DATE 5.6.09

BLDG 1 TA-60

SUBMITTED STEVE DIAMOND

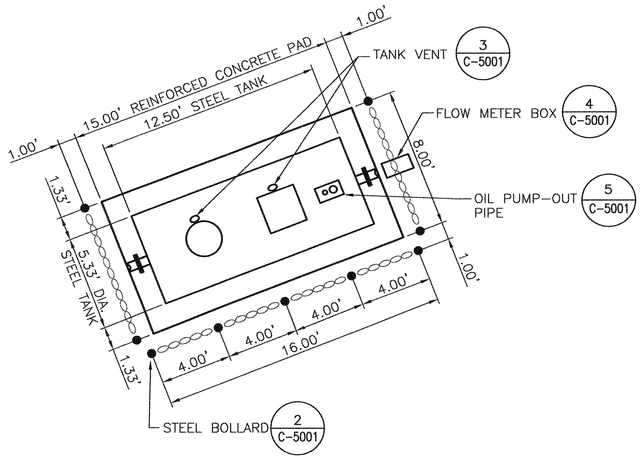
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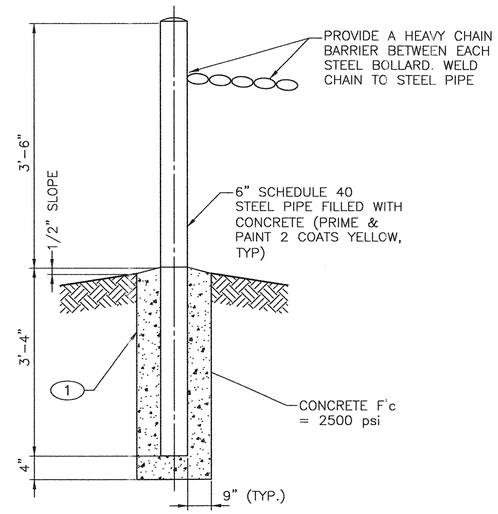
SHEET C-5000
5 OF 12

CLASSIFICATION: U ADC: DONALD YARDMAN DATE: 05/06/09

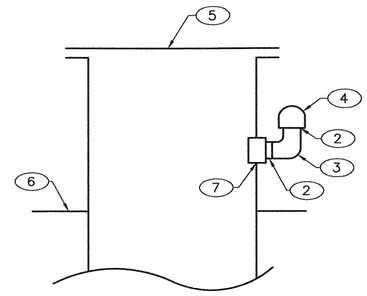
PROJECT ID	DRAWING NO	REV
102235	C54828	0



1 C-1000 OIL/WATER SEPARATOR
SCALE: NONE



2 C-5001 STEEL BOLLARD
SCALE: NONE



3 C-5001 TANK VENT
SCALE: NONE

GENERAL NOTES

1. FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.

KEYED NOTES

(1) CONSULT STRUCTURAL ENGINEER OF RECORD BEFORE POURING CONCRETE FOUNDATION FOR BOLLARD IF SIDE OF FOUNDATION WILL BE WITHIN 18" OF BELOW GRADE OBJECTS (E.G., PIPES, CONDUITS, ETC.) THAT OCCURS WITHIN THE HEIGHT OF THE FOUNDATION.

(2) GALVANIZED STEEL NIPPLE.

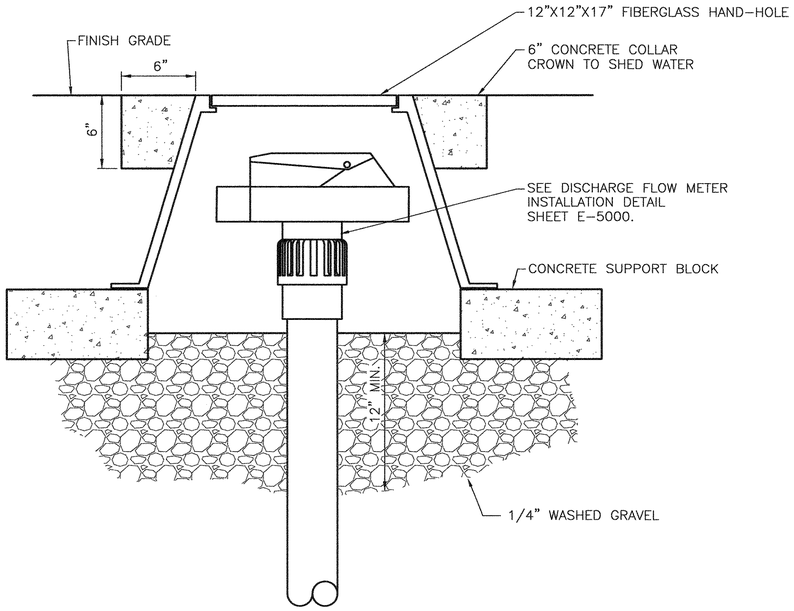
(3) GALVANIZED STEEL 2" 90° ELBOW.

(4) STEEL DUAL OUTLET VENT SCREEN, 2", MCMASTER CARR PORT #4815K15 OR EQUIVALENT.

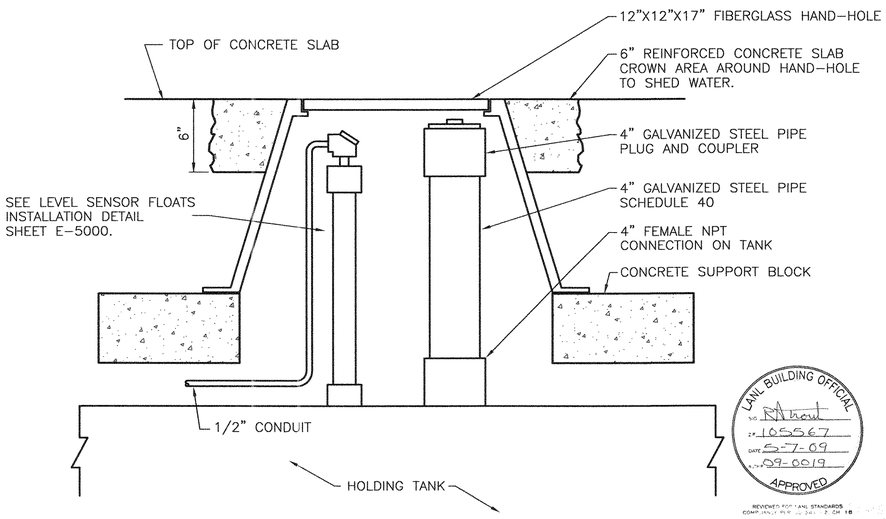
(5) TANK MANWAY PROVIDED WITH TANK. 2" HOLE FACTORY PROVIDED FOR VENT CONNECTION.

(6) FINISH GRADE TOP OF CONCRETE SLAB.

(7) 2" F NPT BUILT INTO MANWAY.



4 C-5001 FLOW METER BOX
SCALE: NONE



5 C-5001 OIL PUMP-OUT PIPE
SCALE: NONE

NO	DATE	CLASS REV	ADC	DESCRIPTION	DWN	DSGN	CHKD	SUB	APP

ENGINEERING SERVICES

OIL/WATER SEPARATOR DESIGN AND INSTALLATION

MISCELLANEOUS DETAILS

DRAWN D. YARDMAN
DESIGN D. YARDMAN
CHECKED J. GURULE
DATE 5.6.09

BLDG 1 TA-60

SUBMITTED STEVE DIAMOND

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SHEET C-5001
6 OF 12

CLASSIFICATION: U ADC: DONALD YARDMAN DATE: 05/06/09

PROJECT ID	DRAWING NO	REV
102235	C54828	0

SYMBOL LEGEND

(NOT ALL SYMBOLS WILL APPLY TO THIS PROJECT)

SYMBOL	DESCRIPTION
	EXISTING
X X X	REMOVE
	NEW WORK
	HIDDEN OR BURIED
H C	HOMERUN CONDUIT
	GROUND
	PHASE
	SWITCHED
	NEUTRAL
	ISOLATED GROUND
	FLEXIBLE CONDUIT
C	CONDUIT TURNING DOWN
	CONDUIT TURNING UP
	CONDUIT UP AND DOWN
	CONDUIT SEAL
	CONDUIT CAP
480V / 600A	BUSWAY WITH DESCRIPTION
G	GROUNDING CONDUCTOR
6 X 24	CABLE TRAY WITH DESCRIPTION
	CEILING JUNCTION BOX
H	WALL JUNCTION BOX
	DUPLEX RECEPTACLE OUTLET
	SINGLE RECEPTACLE OUTLET
	DOUBLE DUPLEX RECEPTACLE OUTLET
GFCI WP	GROUND FAULT CIRCUIT INTERUPTER DUPLEX OUTLET WITH WEATHERPROOF COVER
	SPLIT WIRED DUPLEX RECEPTACLE
	DUPLEX ISOLATED GROUND
	SPECIAL PURPOSE OUTLET – USE SUBSCRIPT TO IDENTIFY TYPE IN SPECS
	208V OUTLET
A	FLOOR RECEPTACLE OUTLET USE SUBSCRIPT TO IDENTIFY TYPE IN SPECS
	RECEPTACLE RACEWAY
S_a	SINGLE POLE SWITCH – USE SUBSCRIPT TO DESIGNATE CONTROL OF PARTICULAR OUTLETS
S_2	DOUBLE POLE SWITCH
S_3	THREE–WAY SWITCH
S_4	FOUR–WAY SWITCH
S_{WP}	WEATHERPROOF SWITCH
S_K	KEY OPERATED SWITCH
600	DIMMER SWITCH – NUMBER INDICATES WATTAGE
M	OCCUPANCY SENSING SWITCH
P	PHOTOCELL
6 30	REMOTE CONTROL SWITCH 6 POLE, 30 AMPS
A 1, b	FLUORESCENT LIGHT FIXTURE A=FIXTURE TYPE 1=CIRCUIT NUMBER b=SWITCH CONTROLLING FIXTURE
	FLUORESCENT STRIP FIXTURE
	WALL MOUNTED FLUORESCENT FIXTURE
	CEILING MOUNTED LIGHT FIXTURE
	WALL MOUNTED INCANDESCENT FIXTURE
	EMERGENCY LIGHT FIXTURE

SYMBOL	DESCRIPTION
	LIGHT POLE WITH FIXTURE
	EMERGENCY LIGHT FIXTURE RECHARGEABLE TYPE
	CEILING MOUNTED EXIT SIGN – ARROW AS INDICATED
	TWO FACED EXIT SIGN
H	WALL MOUNTED EXIT SIGN
	SWITCHBOARD, POWER PANELBOARD
LP–XX	LIGHTING PANELBOARD
T	TRANSFORMER
30	NON–FUSIBLE SAFETY SWITCH (NUMBER INDICATES SWITCH SIZE)
F 40/60	FUSED SAFETY SWITCH (NUMBERS INDICATE FUSE/SWITCH SIZES)
20	COMBINATION MAGNETIC STARTER AND CIRCUIT BREAKER 2 – INDICATES NEMA STARTER SIZE 20 – INDICATES CIRCUIT BREAKER TRIP
2	MAGNETIC STARTER
3	MOTOR (NUMBER INDICATES HP)
	BELL
	HORN "H" OR SIREN "S"
	BUZZER
	PUSHBUTTON
F	MANUAL PULL STATION
V	FIRE ALARM HORN (V=VISUAL SIGNAL)
P	PHOTOELECTRIC SMOKE DETECTOR
I	IONIZATION SMOKE DETECTOR
T	THERMAL DETECTOR
P D DH	DUCT SMOKE DETECTOR (PHOTOELECTRIC)
	MAGNETIC DOOR HOLDER
PS	PRESSURE SWITCH
FS	FLOW SWITCH
S	VALVE SUPERVISORY SWITCH
FACP	FIRE ALARM CONTROL PANEL
F	FIRE ALARM RACEWAY
S	CEILING SPEAKER
H S	WALL SPEAKER
	TELECOMMUNICATIONS OUTLET
	FLOOR MOUNTED TELECOMMMUNICATIONS OUTLET
	INTERCOM OUTLET
T	TELECOMMUNICATIONS RACEWAY
H D	PROTECTED TRANSMISSION SYSTEM (PTS) DATA TERMINAL CONNECTION
CR	CARD READER
ES	ELECTRIC DOOR STRIKE
DC	DOOR CONTACTS
RAP	REMOTE ACCESS PANEL
HG	HAND GEOMETRY UNIT
MD	MOTION DETECTOR
C	CLOSED CIRCUIT TV CAMERA

SYMBOL	DESCRIPTION
100/3	MEDIUM VOLTAGE DISCONNECT SWITCH
600	MEDIUM VOLTAGE DRAWOUT CIRCUIT BREAKER
480V Δ / 208Y/120V 500 KVA	TRANSFORMER (DELTA–WYE CONN.)
	SHIELDED TRANSFORMER
1000/1600	DRAWOUT CIRCUIT BREAKER (TRIP/FRAME)
300/400	CIRCUIT BREAKER (TRIP/FRAME)
7/MCP	MOTOR CIRCUIT PROTECTOR
	FUSE
	FUSIBLE ELEMENT
	FUSIBLE DISCONNECT SWITCH
	GROUND
	GENERATOR
3000/5 3	CURRENT TRANSFORMER (NUMBERS INDICATE RATIO AND QUANTITY)
3	POTENTIAL TRANSFORMER (NUMBER INDICATES QUANTITY)
AS	AMMETER SWITCH
VS	VOLTMETER SWITCH
V	VOLTMETER
A	AMMETER
KW	KILOWATT METER
N E L	AUTOMATIC TRANSFER SWITCH
K1	KEY INTERLOCK #1
	BATTERY
	NORMALLY CLOSED CONTACT
	NORMALLY OPEN CONTACT
	PROTECTIVE RELAY, SOLENOID COIL
	THERMAL OVERLOAD
	CONNECTION
	CROSS, NO CONNECTION
	SURGE ARRESTOR
	CAPACITOR
CR1	CONTROL RELAY #1
	BUS PLUG CIRCUIT BREAKER
T	THERMOSTAT
1	KEYED NOTE DESIGNATION
3	ELECTRICAL EQUIPMENT DESIGNATION
5	MECHANICAL EQUIPMENT DESIGNATION
7	NAMEPLATE DESIGNATION
WP	WEATHERPROOF
AFF	ABOVE FINISH FLOOR

LANL BUILDING OFFICIAL
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Z# 105567
DATE 5-7-09
ENG# 09-0019
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NO	DATE	CLASS REV	ADC	DESCRIPTION	DWN	DSGN	CHKD	SUB	APP

ENGINEERING SERVICES

OIL/WATER SEPARATOR DESIGN AND INSTALLATION

ELECTRICAL LEGEND

BLDG 1 TA–60

DRAWN	S.BEITZ
DESIGN	S.BEITZ
CHECKED	J.SANCHEZ
DATE	5-6-09

SUBMITTED STEVE DIAMOND 5/7/09

APPROVED FOR RELEASE TERRENCE CONNORS 5/7/09

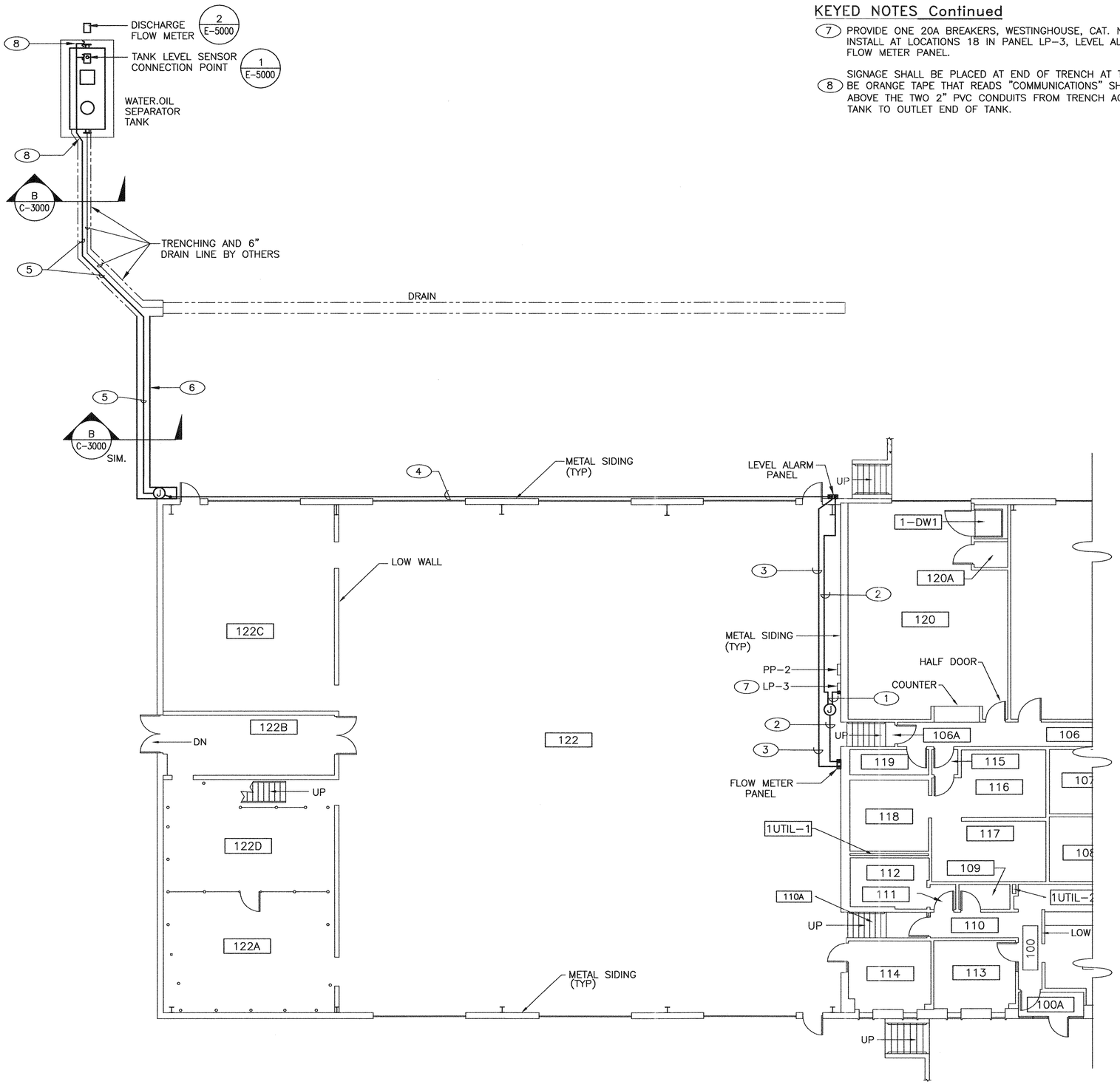
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SHEET E–0001
7 OF 12

CLASSIFICATION: U
REVIEWER: DONALD YARDMAN DATE: 05/06/09

PROJECT ID	DRAWING NO	REV
102235	C54828	0

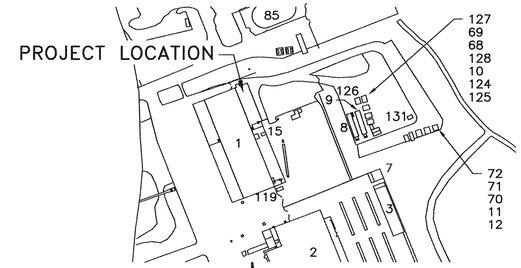
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KEYED NOTES Continued

(7) PROVIDE ONE 20A BREAKERS, WESTINGHOUSE, CAT. NO. BAB1020 AND INSTALL AT LOCATIONS 18 IN PANEL LP-3, LEVEL ALARM PANEL AND FLOW METER PANEL.

(8) SIGNAGE SHALL BE PLACED AT END OF TRENCH AT TANK. SIGNAGE TO BE ORANGE TAPE THAT READS "COMMUNICATIONS" SHALL BE PLACED ABOVE THE TWO 2" PVC CONDUITS FROM TRENCH ACROSS TOP OF TANK TO OUTLET END OF TANK.



KEY PLAN
SCALE: NONE

GENERAL NOTES

1. IF THIS SHEET IS NOT 36X24 THEN IT IS A REDUCED SIZE PLOT. USE GRAPHIC SCALE ACCORDINGLY.
2. PROVIDE AND INSTALL WEATHERPROOF SEALANT BETWEEN BUILDING AND CONDUITS.

KEYED NOTES

(1) PROVIDE AND INSTALL 2-#12, 1-#12 GND IN 3/4" CONDUIT. ROUTE CONDUIT FROM LP-3 TO J-BOX LOCATED NEAR LP3, RM. 122C.

(2) PROVIDE AND INSTALL 2-#12, 1-#12 GND IN 3/4" CONDUIT BETWEEN J-BOX AND LEVEL ALARM PANEL IN RM. 122. PROVIDE AND INSTALL 2-#12, 1-#12 GND IN 3/4" CONDUIT FROM J-BOX TO FLOW METER PANEL LOCATED OUTSIDE ON WALL.

(3) PROVIDE AND INSTALL 2-#18 SHIELDED CABLE IN 3/4" CONDUIT FROM FLOW METER PANEL TO LEVEL ALARM PANEL.

(4) PROVIDE AND INSTALL 2-#18 SHIELDED CABLE AND 2-#18 CONDUCTORS IN 3/4" CONDUIT FROM LEVEL ALARM PANEL TO WEATHERPROOF J-BOX MOUNTED AT 12" ABOVE FINISHED GRADE ON BUILDING WALL. ROUTE CONDUIT, FROM LEVEL ALARM BOX TO J-BOX AT END OF BUILDING, ON WALL ABOVE GARAGE DOORS.

(5) PROVIDE TRENCHING AS PER TRENCH DETAIL "A" ON SHEET C-1001, LENGTH AS NEEDED FROM LEVEL INDICATOR STATION TO ATTACH TO TRENCH FROM DRAIN TO SEPARATOR TANK PROVIDED BY OTHERS. SIGNAGE SHALL BE PLACED ABOVE OR NEXT TO 1/2" CONDUITS ON WALL AT BLDG. PENETRATION OF TRENCH. SIGNAGE SHALL BE ORANGE AND TO READ "COMUNICATIONS".

(6) PROVIDE AND INSTALL TWO 1/2" CONDUITS, RIGID STEEL. ONE 1/2" CONDUIT IN TRENCH FROM J-BOX TO TANK SENSOR CONNECTION POINT. THE OTHER 1/2" CONDUIT FROM OUTPUT SIDE OF TANK BACK TO J-BOX AT BUILDING.

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ENGINEERING SERVICES

OIL/WATER SEPARATOR DESIGN AND INSTALLATION

PARTIAL FIRST FLOOR PLAN
ELECTRICAL

BLDG 1 TA-60

DRAWN	S.BEITZ
DESIGN	S.BEITZ
CHECKED	R.DALEY
DATE	5-6-09

SUBMITTED
STEVE DIAMOND

APPROVED FOR RELEASE
TERRENCE CONNORS 5/7/09

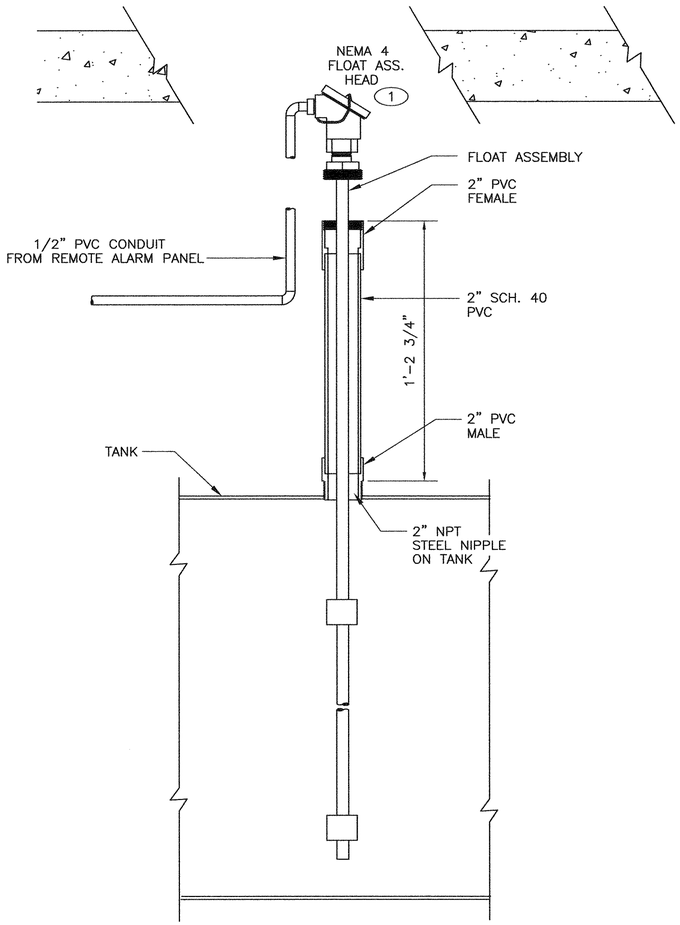
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SHEET E-1000
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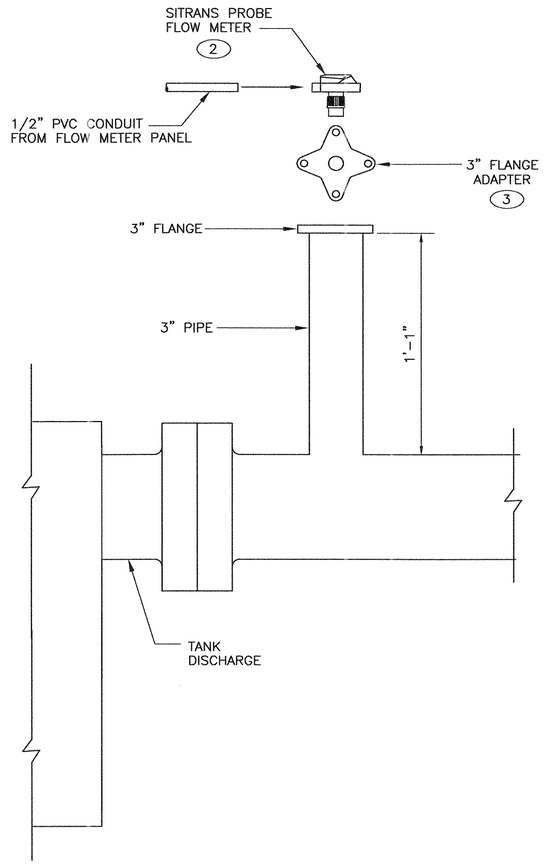
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REVIEWER: DONALD YARDMAN
DATE:

PROJECT ID 102235
DRAWING NO C54828
REV 0

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1 E-1000 LEVEL SENSOR FLOATS INSTALLATION DETAIL



2 E-1000 DISCHARGE FLOW METER INSTALLATION DETAIL

KEYED NOTES

1. PROVIDE AND INSTALL AGGRESSIVE SYSTEMS, CAT PART #S-A0E2B49E21A533, LEVEL SENSOR, AS PER MANUFACTURER INSTRUCTIONS. PART NUMBER PROVIDES SWITCHING LEVELS AND TYPES. SEE MFG. DATA SHEET FOR DETAILS.
2. PROVIDE AND INSTALL SITRANS PROBE LU ULTRASONIC LEVEL SENSOR, SIEMANS #7ML5221, AS PER MANUFACTURER INSTRUCTION.
3. PROVIDE AND INSTALL SITRANS THREE INCH FLANGE ADAPTER, SIEMANS #7ML1839-1BT, AS PER MANUFACTURER INSTRUCTIONS.

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ENGINEERING SERVICES

OIL/WATER SEPARATOR DESIGN AND INSTALLATION

LEVEL SENSOR FLOATS AND DISCHARGE FLOW METER INSTALLATION DETAIL

BLDG 1 TA-60

DRAWN	S.BEITZ
DESIGN	J.FREDENBURG
CHECKED	A.HAYWARD
DATE	5-6-09

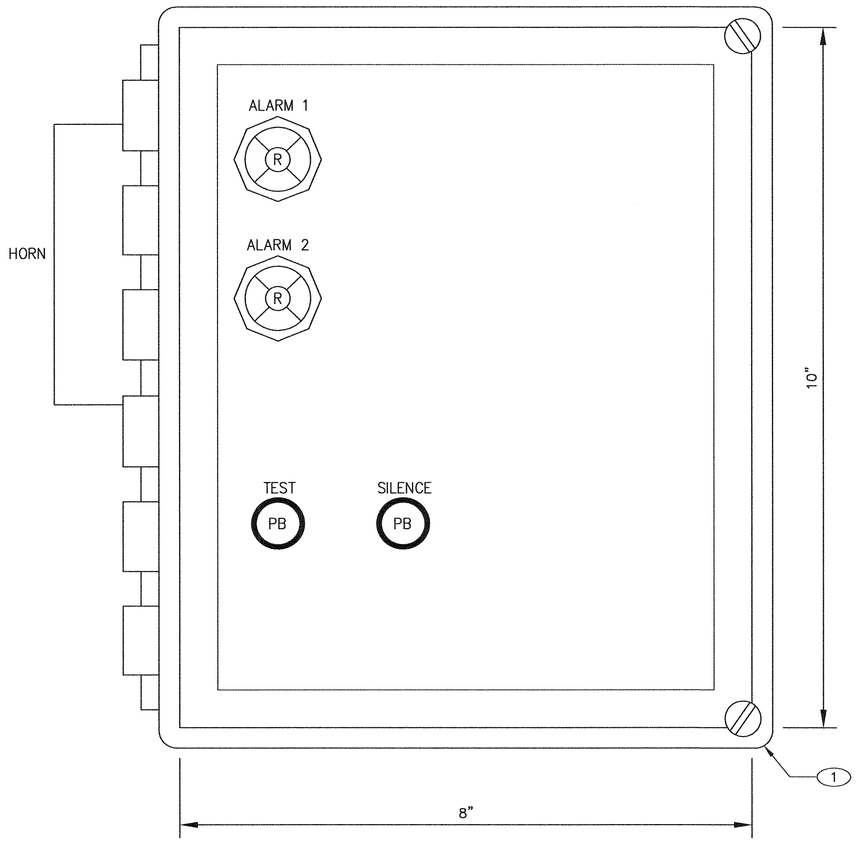
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9 OF 12

CLASSIFICATION: U
REVIEWER: DONALD YARDMAN DATE: 05/06/09
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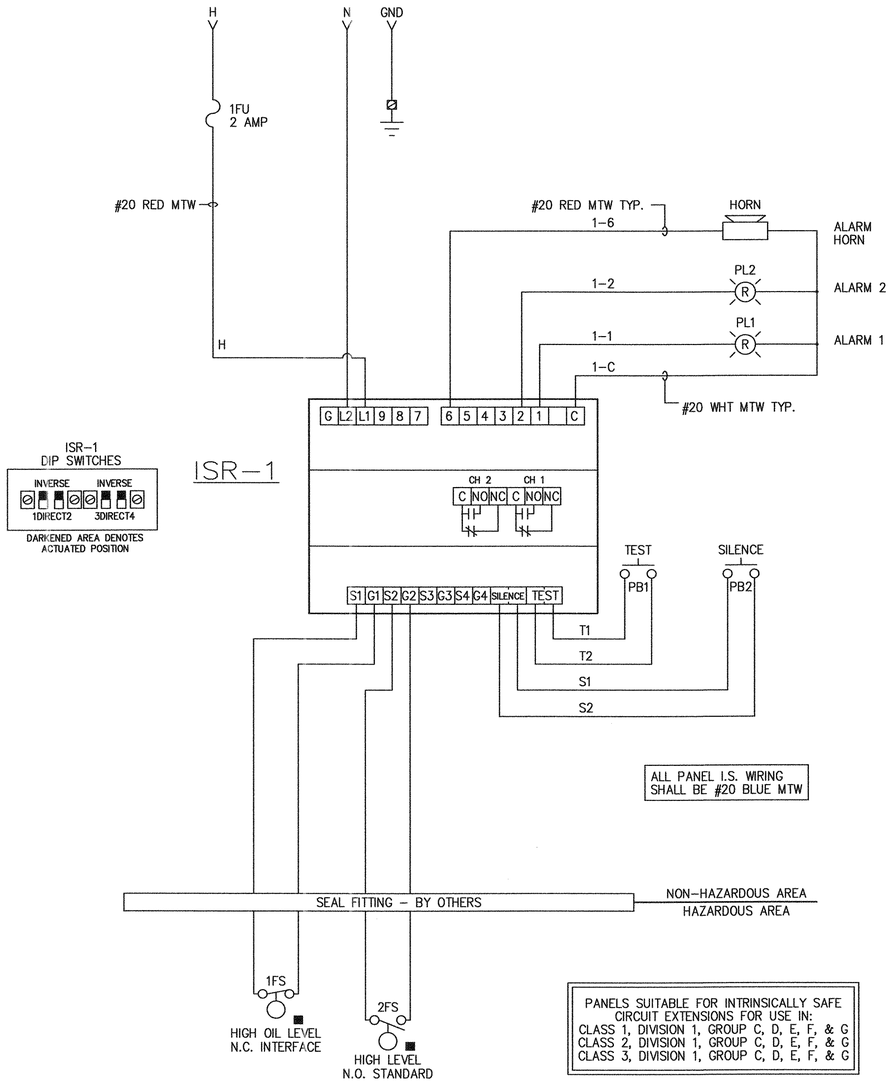


NEMA 4X FIBERGLASS ENCLOSURE

10"H X 8"W X 6"D
PAINT : IN/OUT: LT. GRAY

WARNING
SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY

1.5" X 4" NAMETAG
W/ RED LETTERS
LOCATED ON INSIDE DOOR



WIRING

KEYED NOTES

(1) PROVIDE AND INSTALL AGGRESSIVE SYSTEMS PART #ATA-2 ALARM PANEL AS PER MANUFACTURES INSTALLATION INSTRUCTIONS.

SEQUENCE OF OPERATIONS

FLOATS

TWO FLOATS SHALL BE LOCATED ON THE STEM AT PRE-SPECIFIED LOCATIONS FROM MANUFACTURE. ONE INTERFACE FLOAT WITH SPECIFIC GRAVITY OF .93 TO MONITOR THE OIL LEVEL AND ONE FLOAT WITH A SPECIFIC GRAVITY OF .60 TO MONITOR OVERALL LEVEL IN THE TANK. THE INTERFACE FLOAT WILL BE SET TO ACTIVATE AT 33 INCHES FROM THE TOP OF THE TANK. IF THE OIL REACHES THIS LEVEL THE FLOAT WILL ACTIVATE ALARM 1 AT THE REMOTE PANEL LOCATION ON EXTERIOR WALL OF SHOP. THE UPPER FLOAT WILL BE SET TO ACTIVATE AT 5INCHES FROM THE TOP OF THE TANK, IF THE OVERALL LEVEL IN THE TANK RISES' TO THIS LEVEL THE FLOAT WILL ACTIVATE ALARM 2 AT THE REMOTE ALARM PANEL LOCATION ON EXTERIOR WALL OF SHOP.

FLOW METER

FLOW METER WILL BE INSTALLED ON THE DISCHARGE SIDE OF THE TANK TO MEASURE AMOUNT OF WATER BEING SENT TO WASTE. METER EMITS ULTRASONIC SIGNAL THAT BOUNCES OF THE SURFACE OF WATER AND RETURNS TO THE TRANSDUCER LOCATED WITH IN THE METER WHICH PRODUCES A SIGNAL BACK TO DISPLAY FOR GPM AS WELL AS TOTALIZATION.

ALARM PANEL HIGH & HIGH LEVEL WITH LEAK DETECT DIAGRAM

SCALE: NONE

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ENGINEERING SERVICES

OIL/WATER SEPARATOR DESIGN AND INSTALLATION

ALARM PANEL HIGH & HIGH LEVEL WITH LEAK DETECT DIAGRAM

BLDG 1 TA-60

DRAWN	S.BEITZ
DESIGN	J.FREDENBURG
CHECKED	A.HAYWARD
DATE	5-6-09

SUBMITTED STEVE DIAMOND 5/7/09

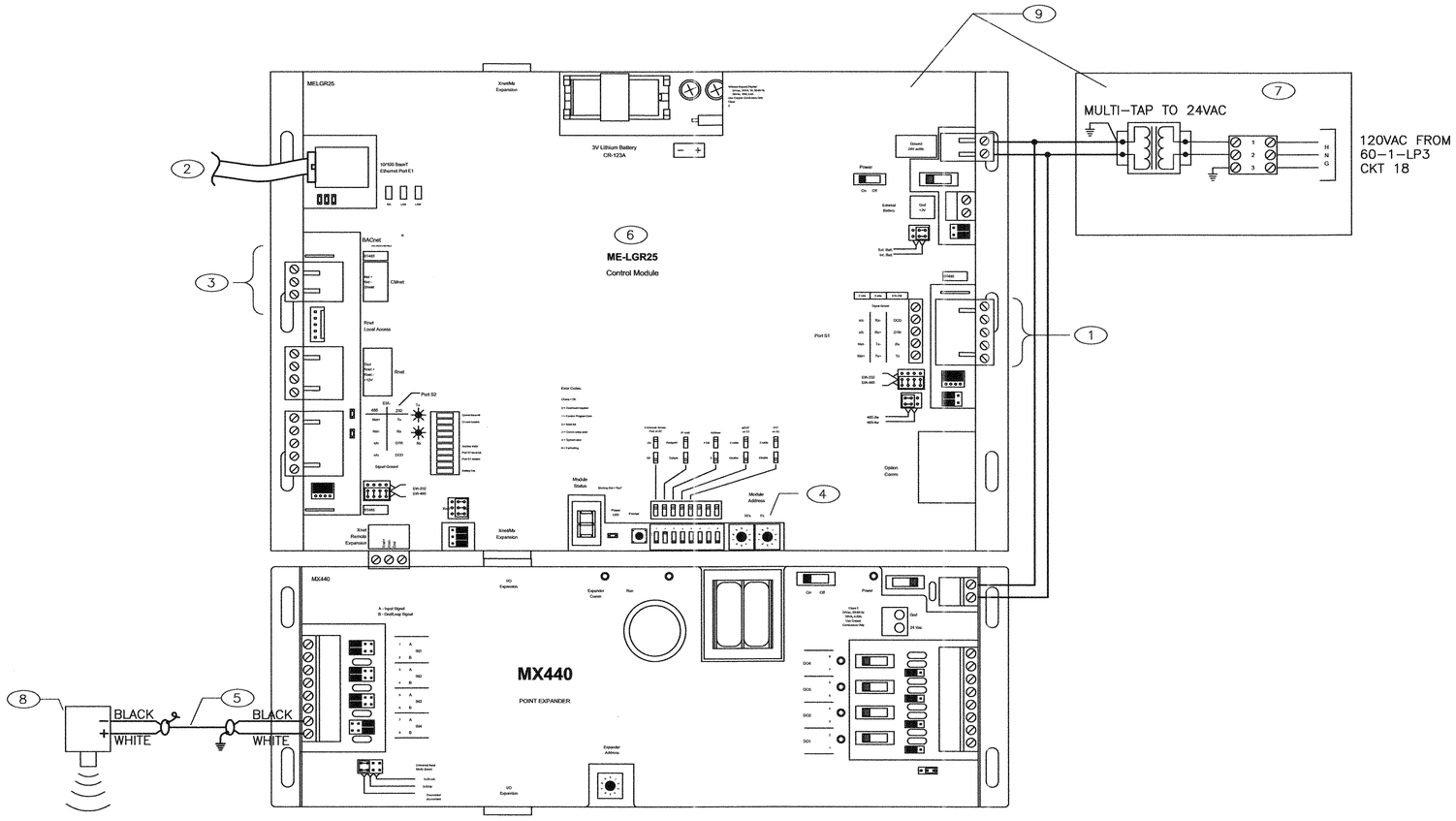
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FLOW METER DIAGRAM
SCALE: NONE

KEYED NOTES

1. FUTURE CONNECTION TO ELECTRICAL POWER METER VIA MODBUSS OVER RS-485
2. EITHERNET CONNECTION TO YELLOW NET. CONSULT WITH P&A DESIGN TEAM FOR ASSIGNMENT OF IP ADDRESS AND BACNET ADDRESS.
3. CM NET FOR FUTURE CONNECTION TO BUILDING AUTOMATION NEXTWORK
4. CONSULT WITH P&A TEAM FOR NETWORK ADDRESS SETTINGS
5. 18 AWG X 2 CONDUCTOR WITH SHIELD CABLE RIN FROM CONTROLLER TO LEVEL PROBE. GROUND SHIELD AT CONTROLLER END AND TIE BACK AND INSULATE AT LEVEL PROBE END.
5. UNTRASONINC LEVEL PROBE – LOCATED AS SHOWN ON TANK INSTALLATION DETAILS.
6. AUTOMATED LOGIC CONTROLLER WITH EXNADER BOARD, PART NUMBERS ME-LGR25 AND MX440
7. ENCLOSED 24VAC POWER SUPPLY, PART NUMBER FUNCTIONAL DEVICES PSHANWB10
8. ULTRASONIC LEVEL TRANSMITTER – SEE INSTALLATION DETAIL FOR PARTS NUMBERS ON SHEET E-6001.
9. LOCATE CONTROLLERS IN NEMA 1 BOX NEAR LEVEL ALARM PANEL. LOCATED POWER SUPPLY OUTSIDE AND ADJACENT TO THE CONTROL BOX. USE HOFFMAN ENCLOSURE A-16N16ALP WITH BACK PANEL A-16N16MP. LOCATE ENCLOSURE AS SHONE ON SHEET E-1000.

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ENGINEERING SERVICES

OIL/WATER SEPARATOR DESIGN AND INSTALLATION

FLOW METER DIAGRAM

DRAWN	S.BEITZ
DESIGN	S.BEITZ
CHECKED	A.HAYWARD
DATE	5-6-09

BLDG 1 TA-60

SUBMITTED STEVE DIAMOND 5/5/09

APPROVED FOR RELEASE TERRENCE CONNORS 5/5/09

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LIGHTING PANEL "60-1-LP3"							MAINS: 100 AMP MCB					
							VOLTAGE: 208Y/120V, 3 PH, 4 W.					
LOCATION: TA: 60, BLDG: 1, ROOM: 122							SHORT CIRCUIT RATING: 10,000 AMPS, RMS, SYMMETRICAL					
SERVED BY: 60-1-TR5							MOUNTING: SURFACE					
SERVES	C/B	LTG	RCPT	PWR	CKT	PHASE	CKT	LTG	RCPT	PWR	C/B	SERVES
MAIN	100				1	-A-----	2			1440	20	
					3	---B---	4			1440	20	
					5	-----C-	6			1440	20	
	20			1440	7	-A-----	8			1440	20	
	20			1440	9	---B---	10			1440	20	
	20			1440	11	-----C-	12			1440	20	
	20			1440	13	-A-----	14			1440	20	
	20			1440	15	---B---	16			1440	20	
EMERGENCY LIGHTS	20	1440			17	-----C-	18			**160**	**20**	**LEVEL ALARM AND FLOW METER PANEL**
OUTSIDE RECEPTACLE	20		180		19	-A-----	20					
					21	---B---	22					
					23	-----C-	24					
					25	-A-----	26					
					27	---B---	28					
					29	-----C-	30					

TOTAL CONNECTED PHASE VOLT-AMPS: A: 7380 B: 7200 C: 5920

CONNECTED:		DESIGN:	
LIGHTING LOAD:	1440 VA	LIGHTING LOAD @ 125%:	1800 VA
RECEPTACLE LOAD:	180 VA	RECEPT.PER NEC 220-13:	180 VA
POWER LOAD:	18880 VA	POWER LOAD @ 100%:	18880 VA
	---	20% SPARE CAPACITY:	4172 VA
TOTAL CONNECTED LOAD:	20500 VA	TOTAL DESIGN LOAD:	25032 VA
	56.9 AMPS		69.5 AMPS

PANEL SCHEDULE – LP–3

KEYED NOTES

(1) PROVIDE AND INSTALL 1 NEW WESTINGHOUSE 20 AMP CIRCUIT BREAKER IN PANEL LP–3, CIRCUIT LOCATION 18, IN RM. 122. BREAKER CAT. #BAB1020. LABEL BREAKER AS "LEVEL ALARM STATION", "DO NOT TURN OFF". LABEL BACKGROUND COLOR SHALL BE RED WITH WHITE LETTERS. MOUNT LABEL ON INSIDE OF DOOR ADJACENT TO BREAKER #18 IN PANEL.

LANL BUILDING OFFICIAL
SIG. [signature]
P# 105567
DATE 5-7-09
ADV# 09-0019
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NO	DATE	CLASS REV	ADC	DESCRIPTION	DWN	DSGN	CHKD	SUB	APP

ENGINEERING SERVICES

OIL/WATER SEPARATOR
DESIGN AND INSTALLATION

PANEL SCHEDULE – LP3

DRAWN	S.BEITZ	BLDG 1	TA–60
DESIGN	S.BEITZ		
CHECKED	R.DALEY		
DATE	5–6–09		

SUBMITTED STEVE DIAMOND [signature]

APPROVED FOR RELEASE TERRENCE CONNORS [signature] 5/1/09

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