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MSGP Stormwater Pollution Prevention Plan

TA-60-01 Heavy Equipment Yard

Triad National Security, LLC

Los Alamos National Laboratory

February 2020

Revision 1

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STORMWATER POLLUTION PREVENTION PLAN

PREFACE

This Stormwater 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 *United States Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP)* (U.S. EPA, June 2015) issued by EPA. The SWPPP uses the industry specific permit requirements for *Sector P – Land Transportation & Warehousing, and Sector AA Fabricated Metal Products* as a guide. The applicable stormwater discharge permit is EPA General Permit Tracing Number NMR050013 [Triad National Security, LLC (Triad)]. Click here to view contents of the 2015 Multi-Sector General Permit.

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 Triad. Throughout this document, the term "facility" refers to the TA-60-01 Heavy Equipment Yard (HEY). The current MSGP expires at midnight on June 4, 2020.

1.0 FACILITY DESCRIPTION

1.1 Facility Information

Name of Facility: TA-60-01 Heavy Equipment Yard		
Street: Intersection of Eniwetok Drive and Maniac Road		
City: Los Alamos	State: NM	ZIP Code: 87545
County: Los Alamos		
NPDES ID (i.e., permit tracking number): NMR050013		
Primary Industrial Activity SIC code, and Sector and Subsector (2015 MSGP, Appendix D and Part 8):, SIC Code 4212, Sector P, Subsector P1; and SIC Code 3499; Sector AA, Subsector AA1		
Estimated area of industrial activity at site exposed to stormwater: 7.3 acres		
Discharge Information		
Name(s) of surface water(s)/segment that receives stormwater from your facility: Sandia Canyon (Sigma Canyon to NPDES outfall 001)		
Does this facility discharge industrial stormwater directly into any segment of an "impaired water" (see definition in 2015 MSGP, Appendix A)? ☒Yes No		
Pollutants causing the impairment: Total recoverable Aluminum, PCB (Aroclors), and dissolved Copper.		
Pollutants causing the impairment (see above) that may be present in industrial stormwater discharges from this Facility: Aluminum and Copper		

Are any of your stormwater discharges subject to effluent limitation guidelines (ELGs) (2015 MSGP Table 1-1)? ☐Yes ☒No If Yes, which guidelines apply? Not applicable.

1.2 Stormwater Pollution Prevention Team (PPT)

The Stormwater PPT for the TA-60-01 HEY consists of operations and management personnel from the Utilities and Institutional Facilities (UI) Facilities Operations Division (FOD), Deployed Environment, Safety and Health (DESH) and the facility, a representative from Environmental Protection and Compliance-Compliance Program (EPC-CP), and a DEP. The EPC-CP representative is responsible for subject matter expertise to ensure Laboratory compliance under the 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 in the table below.

Personnel Titles	Individual Responsibilities
Team/Group Leader: DESH-Utilities and Infrastructure Support (UIS), Manager 4	Responsible for the management of all environmental, safety, health, and quality programs for the yards, buildings and facilities 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 directing facility and operations responsible managers to correct problems noted during inspections. The Group Leader also ensures adequate resources are obtained to ensure compliance requirements of the MSGP and this SWPPP are met.
Deployed Environmental Professionals (Primary and Backup) DESH-UIS, Environmental Professional	Responsible for the support and oversight of all environmental programs and issues for the yards, buildings and facilities listed within this Plan. The DEP is responsible for training, recordkeeping, and SWPPP revision. The DEP ensures documentation of inspections 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 and regularly communicates with facility and operations personnel and the PPT regarding implementation of the MSGP and this SWPPP. Lastly, the DEP conducts routine facility inspections and if necessary, visual assessments, in accordance with the Permit. Identified conditions requiring corrective actions from routine facility inspections 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. The DEP is also responsible for immediately and timely communication to appropriate facility and operations management personnel to ensure that they are aware of non-compliant issues within the MSGP boundary of the facility and that they

	understand immediate action is required to correct the non-compliance.
FOD Manager/Representative: UI-Operations, Operations Manager 4 (or designee) LOG-HERG, Maintenance Manager 4	Responsible for managing the maintenance and operation of all aspects of the yards, buildings and facilities listed within this Plan. These managers/representatives 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 new site or operation that may be subject to the MSGP. These managers/representatives are key to ensuring adequate communication and coordination of issues regarding implementation of the MSGP and this SWPPP.
EPC-CP Core: MSGP Program Lead, Environmental Professional	The MSGP Program Lead is responsible for managing and administering the MSGP Program for all industrial facilities operated by Triad within Los Alamos National Laboratory. The MSGP Program Lead advises and provides guidance to facility or operations personnel on NPDES MSGP regulations/requirements. The Program Lead also acts as the institutional point of contact for all interactions with the regulatory authority (EPA) and supervises personnel implementing stormwater monitoring requirements for the facility.
Operations Manager(s): Heavy Equipment Shop Superintendent, LOG-HERG Fleet Manager, LOG-HERG Heavy Equipment Laborer Foreman, LOG-HERG	Responsible for day-to-day operations at the facility. The superintendent/manager/foreman, assist the DEP and EPC with inspections; spill reporting; implementing, installing and maintaining storm water controls (also known as Best Management Practices) (BMPs); and providing documentation as requested by other team members. The superintendent/manager/foreman are key to ensuring adequate communication and coordination of issues regarding implementation of the MSGP and this Plan. The superintendent/manager/foreman are also assist the DEP/EPC with SWPPP training and/or briefings, as requested.

1.3 Site Description

The primary operation of the TA-60-01 HEY is to repair and maintain heavy equipment and government vehicles used at LANL. The boundary of the facility covers an estimated 7.3 acres on Eniwetok Drive in Los Alamos, New Mexico. 100% of the facility consists of impervious surfaces. The site is located west of Sandia Canyon.

The HEY 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 lower lot of the facility is used for various craft material storage and equipment part storage. There are also roll-off bins for tire, metal and wood recycle in this lot. Vehicle and heavy equipment parking is located west of the building.

Vehicle maintenance is performed 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 and refueling. The upper 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. There are several satellite accumulation areas within and two used oil storage areas outside TA-60-1. One used oil storage area and one New Mexico special waste storage area are outside. The refueling trucks for the laboratory are staged in the upper lot and are covered by a Spill Prevention Control and Countermeasure (SPCC) Plan (see Attachment 25).

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 Wastewater System (SWWS).

Metal fabrication for vehicles takes place at the northwest repair bay of the facility. Sheet metal and other metal used for fabrication is stored outside of the bay by the roll up doors and on a rack further south of the northwest side of the building.

Industrial activities and major structures at the facility are shown on the site map in Figure B-1. Detailed descriptions of the facility industrial activity activities are provided in Section 2.0.

Outfalls

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

Outfalls 021 & 22

These outfalls are located on the east side of the site in the main drainage ditch between the upper and lower lots. The two outfalls receive drainage from the drop inlet east of the main building and the detention basin east of the building. These outfalls are associated with the following industrial activity areas: metal raw material storage, drum storage, product storage, vehicle maintenance, used oil storage, product oil storage, an oil filled transformer, and New Mexico special waste storage. Automated sampler, **MSGP02201** is located at Outfall 022. Outfall 021 is substantially identical to outfall 022.

Outfall 023

This outfall is substantially identical to outfall 022 and consists of a drop inlet and culvert located at the lower lot that discharges to a drainage ditch east of the facility. The outfall is associated with the metal recycle roll-off bin and the metal raw material storage area.

Outfall 024

This outfall is substantially identical to outfall 022 and consists of an asphalt rundown located on the northwest side of the building. The rundown drains to a bedrock lined ditch that runs east to Sandia Canyon. This outfall is associated with the covered metal storage and vehicle parking areas. The rundown drains the main front parking lot and the front of both lower bays, including the northwest bay area where metal fabrication takes place inside.

Outfall 025

This outfall is substantially identical to outfall 022 and consists of a culvert located northwest of the building with a culvert running under Maniac Road. The culvert discharges to a drainage that runs east to Sandia Canyon. This outfall is associated with the heavy equipment storage area.

1.4 General Location Map

The general location map for the facility can be found in Figure A. Figure B-1 contains the site map for TA-60-1 HEY. This map (along with Figure B-2) identifies all receiving waters associated with stormwater discharges from the facility. 100 percent of the site flows to Sandia Canyon. The canyon at this location is a perennial stream and eventually flows to the Rio Grande approximately 8.5 miles southeast of the site.

Site Map

The site map is provided as Figure B-1 and illustrates the facility's industrial activities: including facility boundary, structures, impervious surfaces, industrial activity areas, spills, operational areas, drainage patterns, stormwater controls, monitoring locations, outfalls and nearby receiving streams.

As required by the 2015 MSGP, the following information specific to the facility is either shown on the site map or contained elsewhere within this SWPPP.

- **Site boundaries and acreage**. The site covers approximately 7.3 acres.
- **Significant structures and impervious surfaces.** The site is 100% impervious, primarily due to 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.** Stormwater from this facility discharges to Sandia Canyon impaired waters. There is not TMDL for Sandia Canyon. A map of nearby receiving waters is provided as Figure 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**.
- This facility is not currently associated with a municipal separate storm sewer system (MS4).
- **Areas of designated critical habitat for endangered or threatened species.** There are no areas in the direct vicinity of the facility. However, a map for threatened and endangered species within LANL property is included as Figure B-3.
- There are no non-stormwater discharges at the facility (see certification in Attachment 3)
- Locations of the following activities where such activities are exposed to precipitation:
    - fueling stations (none, however, 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 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.

2.0 POTENTIAL POLLUTANT SOURCES

Industrial activities that could potentially result in releases to the environment are summarized in 2.1 below.

In general, materials stored in outside locations at the TA-60-01 HEY have secondary containment units, are stored in enclosed sheds or structures, or are 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. Micro-Blaze® 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 Figure B-1.

2.1 Potential Pollutants Associated with Industrial Activity

Upper Lot

Covered Bulk Transfer Area with Secondary Containment
This area is outdoors adjacent to the bottom (north) shop. The area contains four polyethylene (poly) secondary containment basins that hold drums of antifreeze, diesel exhaust fluid, diesel fuel, and window washing fluid. The poly 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, and heavy metals.

Product Oil Storage Area
This area is locate next to the oil fill transformer (southeast corner of the building). *Potential pollutants includes product oil and heavy metals.*

NM Special Waste Storage Area (Site ID# 2266)
The New Mexico special waste storage area is located 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 and heavy metals.

Oil Filled Transformer
This transformer is located at the southeast corner of the building. *The potential pollutant is non PCB transformer mineral oil.*

Empty 55-gallon drum storage area
This 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 petroleum product residues, oils, hydraulic fluid, diesel exhaust fluid, antifreeze, window washing fluid and heavy metals.

Used Oil Storage Areas
There are two used oil storage areas at the TA-60 HEY. These include 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 contained within concrete secondary containment units. *Potential pollutants include used oil/oily water and heavy metals.*

Drum Storage at Upper Shop

There is a drum storage area located southeast of the building outside of upper shops. This storage area contains 55-gallon steel/poly product drums of 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 and heavy metals.*

Refueling Trucks, Heavy and Small Equipment

Refueling trucks and equipment parking and staging occurs in the upper east lot. Refueling trucks, heavy equipment and vehicles waiting for repair, small ATVs, and tires for recycle are parked/staged here. *Potential pollutants include leaks of petroleum products, hydraulic fluid, antifreeze, gasoline/fuels and heavy metals.*

Metal Raw Material Storage Area (Metal Parts for Heavy Equipment)

This area is located on the eastern edge of the upper storage lot and contains metal racks with blades and other metal parts for use on heavy equipment. *Potential pollutants include metal residuals.*

Filter Crusher

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, hydraulic fluid, antifreeze, gasoline/fuels and heavy metals.*

Oil/Water Separator

The oil/water separator is located northeast of the building and is used to separate oil from water prior to discharge to SWWS. *Potential pollutant sources include sediment/solids, oil and heavy metals.*
Note: This system is not designed to treat or separate fuel from water.

Vehicle and Small Equipment Parking

Vehicle and small equipment parking occurs in the upper west lot. This area 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 to the southwest of the building. *Potential pollutants include leaks of petroleum products, oils, hydraulic fluid, antifreeze, gasoline/fuels and heavy metals.*

Heavy Equipment Parking and Lower Repair Bay

The lower repair bay is located on the northwest 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 and heavy metals.*

Metal Fabrication Area and Parts Rack

The metals fabrication area is located on the northwest side of the lower repair bay. This area also holds a variety of metal parts needed for heavy equipment. *The potential pollutant is heavy metals.*

Roll-Off Bin for Tires

This roll-off bin is located in the southern portion of the upper lot and is used to store tires prior to off-site disposition. *The potential pollutant is heavy metals.*

Lower Lot

Miscellaneous Heavy Equipment Parts and Metal Storage

Miscellaneous heavy equipment parts and raw metal for fabrication is 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 heavy metals, hydraulic oil, and machine oil residuals.*

TA-60-117 Paint Storage Shed

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

Metal and Wood Roll-Off Bins for Recycle

The metal and wood roll off bins for recycle are located in the northwest corner of the lower east lot. 30 cubic 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 heavy metals, machine oil residuals, wood shavings, wood treatment chemicals/residues.*

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 roofing material, debris, heavy metals, etc.*

Solid Waste Management Units (SWMUs)/Consent Order Sites and Areas of Concern (AOC)

Three SWMUs were located within the fenced boundary of the facility. AOCs 60-001(a), 60-001(b) and 60-003 have been approved for No Further Action by the New Mexico Environment Department (NMED) and have been removed from the LANL/DOE RCRA permit.

The remaining SWMU, 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 feet 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

Spills and leaks for the past year (2019) are summarized below. Spills and leaks that occurred prior to 2019 are documented in previous SWPPP revisions.

Date	Description	Outfall(s) Affected
November 2019	A Bearcat government owned vehicle was being brought into the shop for repairs when it released approximately 1-2 gallons of diesel fuel onto the asphalt of the west parking lot. The truck was immediately taken into the shop for repairs. The impacted area was treated with absorbent and Micro-Blaze®. The spill occurred directly in front of the main entrance and west parking lot of the shop. It did not leave the site or impact a storm drain or outfall.	None
November 2019	Approximately 1 gallon of hydraulic fluid was released from a forklift awaiting repairs. The spill pan placed under the forklift to contain any drips overflowed over the weekend, spilling approximately one gallon. Facility personnel responded to the leak on Monday morning when it was discovered and applied absorbent material and Micro-Blaze®. The spill did not leave the parking lot, did not reach a watercourse or adversely impact any SWMUs or AOCs.	None

Areas on Site Where Potential Spills/Leaks Could Occur

LOCATION	OUTFALLS (see site map)
Upper Lot (See Section 2.1 for specific industrial activity areas)	021, 022, 024, 025
Lower Lot (See Section 2.1 for specific industrial activity areas)	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 upon completion and documentation of the spill clean-up, and will be summarized in this section of the SWPPP. In addition, spills within MSGP facility boundaries will be entered as conditions requiring corrective action in the MSGP CAR database and will be updated as corrective action occurs, in accordance with EPC-CP-QP-022, *MSGP Corrective Actions*.

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 performs maintenance and repairs on heavy equipment and vehicles, there are spill protection clean-up materials readily available on site. Appropriate response measures for a spill or release of hazardous materials are followed when addressing spills. The specific spill response and cleanup procedures depend on the nature and amount of the spilled material. Specific spill response and reporting procedures for LANL are listed in Section 3.1.4 of this SWPPP.

2.3 Unauthorized Non-Stormwater Discharges

There are no NPDES permitted non-stormwater discharges or unpermitted outfalls associated with the facility. Potential sources of authorized non-stormwater discharges at the facility include the testing of fire hydrants in the area. All wastewater within the building discharges to the SWWS.

The "Non-Stormwater Discharge Assessment and Certification" is located in Attachment 3. This form certifies that all stormwater outfalls have been evaluated for the presence of non-stormwater discharges. The form is updated whenever a change in possible non-stormwater discharge is determined**.**

2.4 Salt Storage

No salt storage or piles containing salt are present at the facility. There is no salt storage anticipated for this facility as part of an industrial activity.

2.5 Historical Data Summary

The following tables provide sampling data at the facility for the past year.

Permitted Facility: TA-60-01 Heavy Equipment Shop

Calendar Year 2019

Monitored Outfall	**Discontinue Monitoring**		**Continue Monitoring**				
	Average of four monitoring values did not exceed benchmark; quarterly monitoring discontinued per Part 6.2.1.2 of the MSGP	Impaired water constituent was not detected in storm water discharge; annual monitoring discontinued per Part 6.2.4.1 of the MSGP.	Fewer than four quarterly samples have been collected in the 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	Total Aroclor	N/A	Al, Fe, NO3+NO2-N, Zn	N/A	—	Al, Cu

N/A – No quarterly benchmark monitoring required.
Al=Aluminum
Fe=Iron
NO3+NO2-N=Nitrate plus Nitrite Nitrogen
Cu=Copper

3.0 STORMWATER CONTROL MEASURES

Control measures at the facility are designed to minimize the potential release of pollutants that could adversely affect water quality.

Proper material management and storage minimizes exposure of potential pollutants at the facility to precipitation. Containers that could be susceptible to spillage or leakage are plainly labeled (e.g., "Used Oil," "Spent Solvents," etc.). Vehicles or Heavy Equipment received for repair or maintenance at the

shop are all inspected upon receipt to determine whether they are leaking. Vehicles or Heavy equipment that is leaking is moved inside a bay for repair or a drip pan is placed under it, monitored, and emptied once full, prior to a storm event, or when equipment is no longer leaking. Heavy equipment repair and maintenance is performed inside the repair bays. Most industrial operations are performed indoors, and materials are stored indoors or outdoors in enclosed structures. Adequate secondary containment is provided for outdoor storage areas containing potentially hazardous materials. BMPs are installed at all outfalls to manage stormwater runoff and sediments.

3.1 Non-Numeric Technology-Based Effluent Limits

Part 8 of the 2015 MSGP identifies sector-specific non-numeric technology-based effluent limits for **Sector P – Land Transportation and Warehousing** and **Sector AA – Fabricated Metal Products**, in addition to the general non-numeric technology-based effluent 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 the TA-60-1 HEY and are listed by sector.

Sector P

Vehicle and Equipment Storage Areas
See sections 3.1.1 – 3.1.6 and 3.1.8 for specific controls in these areas.

Fueling Areas (Refueling)
Per the SPCC Plan in Attachment 25, refueling will only be conducted at designated locations. If refueling occurs at an undesignated location, the location will be inspected for adjacent storm drains and ditches. Temporary BMPs will be installed if required. If temporary BMPs are specified for a location, fueling will not occur unless the temporary BMP has been installed by the facility or refueling team. Refueling will not occur during precipitation events in areas exposed to stormwater. Vehicles will only be filled until the dispensing nozzle shutoff is activated. In addition, emergency spill absorbent materials are located on each truck in service for immediate use, if needed.

Material Storage Areas
See sections 3.1.1 – 3.1.6 for specific controls in these areas.

Vehicle and Equipment Cleaning Area
Vehicles or Heavy Equipment are steam cleaned on an asphalt pad with a berm that drains to an oil/water separator. Water from the OWS drains to SWWS.

Vehicle and Equipment Maintenance
All vehicle and heavy equipment maintenance is conducted inside a bay within TA-60-1.

Employee Training
See section 4.5 for employee training requirements. In addition, per the SPCC Plan contained in Attachment 25, refueling personnel are trained to respond to an incidental spill. They are also trained to

identify adjacent storm drains or other conveyances and to choose and install temporary BMPs if needed.

Sector AA

Raw Steel Handling Storage
See sections 3.1.1 – 3.1.6 for specific controls in these areas.

Paints and Painting Equipment
All painting equipment is kept inside the shop bays and is typically limited to spray paints, which are kept inside flammable cabinets.

Metal Fabricating Areas
See sections 3.1.1 – 3.1.6 for specific controls in these areas.

Storage Areas for Raw Metal
See sections 3.1.1 – 3.1.6 for specific controls in these areas.

Metal Working Fluid Storage Areas
Metal working fluid is kept inside the shop bays, typically inside flammable cabinets or appropriate chemical storage areas.

Cleaners and Rinse Water
Cleaners are kept inside of the shop bays in flammable cabinets or appropriate chemical storage areas. Rinse waters are not typically used inside the shop. However, the floor drains inside the shop are closed and do not discharge to the sanitary sewer system or outside storm drains.

Lubricating Oil and Hydraulic Fluid Operations
All operations occur inside the shop bays.

Chemical Storage Areas
All chemicals are used inside the shop and stored in flammable cabinets or appropriate areas. Chemical items are kept labeled and are inventoried annually through LANL's Chemlog (barcode) tracking system.

Spills and Leaks
See section 3.1.4 for specific spill prevention and response procedures.

3.1.1 Minimize Exposure

Covered and Enclosed Structures
Industrial materials are kept inside the Heavy Equipment shop or enclosed storage sheds when 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. Refueling trucks are equipped with spill kits.

Oil Water Separator
The OWS separates oil residues from the east repair bays, the bulk storage units, and vehicle washing area at the northeast section of the building. The OWS drains separated water to SWWS. OWS preventive maintenance procedures are described in Section 3.1.3 of this SWPPP. The OWS operations and maintenance manual, manufacturer's specification and drawings are included in Attachment 24.

Petro Barriers
These barriers are installed at the grated storm drains at the northeastern boundary of the upper east lot. The barriers filter out oil residues from the upper east lot before stormwater is discharged to the outfalls below. PM procedures for the Petro Barriers are described in Section 3.1.3 of this SWPPP.

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

Metal Storage Racks
Sheet metal for fabrication, metal piping and other fabrication materials are kept on covered metal storage racks off the ground. Raw metal stored outside, used for fabrication, is stored on pallets and covered with heavy duty tarps if not stored in the covered metal storage racks mentioned above.

Covers for Trash Dumpsters and Recycle Bins
Trash dumpsters and metal/wood recycle bins located at the facility are kept closed or covered when not in use and are emptied on a regular basis. These roll-off bins are emptied when they are 3/4 full to keep from damaging the bins or covers. Dumpsters are kept in good condition and are repaired or replaced if needed by Roads and Grounds.

3.1.2 Good Housekeeping

Good housekeeping practices specifically applicable to the prevention of stormwater contamination are described below.

All site areas exposed to precipitation are walked down during daily operations and monthly routine facility inspections to ensure that the grounds are kept in an orderly condition. The outdoor metal storage areas are inspected to ensure all piping and metal raw materials are off the ground on storage racks and covered, or stored inside buildings, sheds or transportable containers. Vehicle and forklift parking areas are inspected for leaks or spills as well as storage areas containing oil-filled equipment. The entire site, including loading areas and outfalls, is inspected for floatable debris, garbage, waste and all other potential pollutants. All dumpsters and roll-off bins are inspected to ensure they are closed.

3.1.3 Maintenance

Control measures at the facility are kept in effective operating condition by the implementation of scheduled preventive maintenance (PM), 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, corrective action is taken in accordance with the timelines specified in the *Corrective Action and Deadlines* requirements of Section 6.0 of this SWPPP. If maintenance is needed in accordance with the PM schedule provided below, and/or in accordance with the operations and maintenance manual identified in Attachment 24, it is documented in the Scheduled Maintenance Log provided in Attachment 10.

Deficient items identified during routine facility inspections, walk-downs, or by any other means of identification, are documented on the routine facility inspection forms and entered into the MSGP CAR database. The condition requiring corrective action remains open until proper repair, replacement or other corrective action has been completed. CAR information, along with documentation of maintenance/repair of control measures, is in Attachment 9 of the SWPPP.

Metallox Wattles are replaced every 3 months or sooner if needed (typically in March-April, June-July, and September-October). Outfall culverts and drainages (including rock check dams and gabions) are inspected monthly and after heavy rain events and are cleaned out monthly or sooner if needed. Torn gravel bags at outfall areas are replaced immediately after discovery. Lot sweeping is performed monthly with a vacuum sweeper. In the event the vacuum sweeper is down for repair, sweeping will occur as soon as equipment is functional and able to be scheduled.

Trench Drain and Envirologix HQB OWS PM:

- The trench drain connected to the OWS is inspected weekly by HEY personnel.
- The trench drain is pumped and cleaned out once it reaches half of its holding capacity.
- Jet-rodding of the OWS inlet pipe is performed if the inlet is clogged.
- Mesa Oil (subcontractor) pumps out oily water from the OWS once a month.
- Navarro (subcontractor) removes sludge from the OWS on a semi-annual schedule.

The OWS operations and maintenance manual is provided in Attachment 24 of this SWPPP.

Petro Barriers PM:

- Petro Barriers are inspected monthly.
- Filters are periodically cleaned when clogged with debris and replaced every 6 months.
- Media is replaced once a year (per manufacturer's specifications) or sooner if a malfunction is observed.

All of the maintenance listed above is documented in the Scheduled Maintenance Log provided in Attachment 10.

3.1.4 Spill Prevention and Response

Spills, leaks, or releases are prevented and minimized by the application of good housekeeping procedures, BMPs, and engineering/administrative controls. Containers that could be susceptible to spillage or leakage are 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 inside TA-60-01 and spill kits are available on the refueling trucks, and are readily accessible to facility 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 Heavy Equipment Shop Superintendent and/or the Emergency Management Division-Emergency Response (EMD-ER)

Team (if necessary). For incidental releases, Micro-Blaze® or dry absorbents can be used and the contaminated absorbents containerized and disposed of properly off-site.

All spills or releases are reported to EPC-CP by using the spills pager (505) 664-7722. Although incidental spills may be cleaned up by facility personnel, all emergency spills or releases are reported to Emergency EMD-ER and/or the Facility Duty Officer by calling 667-2400. If fire or explosion is present, or if the potential for such exists, the situation must be reported by dialing 911 from a non-cellular phone or by activating a fire pull box. In the event of a spill, EMD-ER will coordinate appropriate cleanup procedures and EPC-CP will notify the individuals or organizations responsible for completing spill reports and providing information needed to fulfill regulatory reporting requirements.

Unauthorized releases or discharges within industrial facility boundaries are entered into the MSGP Corrective Action Reporting database in accordance with EPC-CP-QP-022, *MSGP Corrective Actions*. In addition, the completion of an Unplanned Release Report is required in the event of a spill. The report is 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 and/or written notification to the National Response Center, Environmental Protection Agency Region VI, or the NMED. EMD-ER, the FOD, and EPC-CP, in accordance with Laboratory and DOE policies and federal and state regulatory reporting requirements, will make the determination for the type of reporting required. EPC-DO-QP-101, *Environmental Reporting Requirements for Releases or Events* is used for this purpose (see Attachment 21).

Copies of internal spill reports are maintained by the responsible organization and in the EPC-CP database. The EPC-CP procedure for spill reporting and response, ENV-CP-QP-007*, Spill Investigations,* can be found in Attachment 22 of this SWPPP.

3.1.5 Erosion and Sediment Control

100% of the outside surface area 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 023 is a grated storm drain that discharges to a corrugated metal culvert and rock-lined channel at the eastern facility boundary. Outfall 024 consists of an asphalt run-down and Outfall 025 contains a drainage channel reinforced with rock check dams.

Gravel Bags/Eco-Bloks

Gravel bags or Eco-Bloks are used at outfall inlets and other areas to minimize sedimentation to outfalls and direct stormwater for appropriate drainage.

3.1.6 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 1.3). Other specific run off controls are listed below.

Metalloxx Wattles
These wattles are used to filter out heavy metals in stormwater runoff. There are currently wattles located before discharge points at Outfall 022.

Gravel Bags/Eco-Bloks
The gravel bags or Eco-Bloks function as flow dissipation devices for Outfalls 023, and 024. They also minimize sediment transport in runoff and direct runoff to stabilized channels.

Asphalt Curb/Berm
Asphalt curb/berm is used to direct runoff to designated drainages and outfalls.

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

Sediment Retention Basin
This 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
These barriers are installed in the grated storm drains at the southeastern section of the upper east lot. The barriers contain oil absorbing media that filter out petroleum products from stormwater runoff.

Envirologix HQB Oil Water Separator
The 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. It 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.

Refer to the site map in Figure B-1 for outfall information provided in Sections 1.3 of this SWPPP and for more detailed information on drainage patterns and control measures associated with this facility.

3.1.7 Salt Storage Piles or Piles Containing Salt

See Section 2.4.

3.1.8 Dust Generation and Vehicle Tracking of Industrial Materials

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. Equipment brought in from other areas of the Laboratory may be covered in mud from recent storm events. These vehicles may track sediment onto the facility. Sweeping with a vacuum sweeper is performed and logged on Attachment 10.

3.2 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 **Sector AA – Fabricated Metal Products** 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.

3.3 Water Quality-Based Effluent Limitations and Water Quality Standards

Impaired waters monitoring is performed annually at the facility as listed in Section 4.7 of this SWPPP. The pollutants monitored can change yearly based on the requirements of the MSGP. The table in Section 4.7 lists the current year monitoring requirements and standards.

Stormwater from the TA-60-01 HEY discharges to Sandia Canyon. Certain stream reaches within Sandia Canyon are identified as impaired waters by the NMED Surface Water Quality Bureau (SWQB). According to the 2018-2020 State of NM Clean Water Act 303b/305b Integrated Report and Final List of Assessed Surface Waters, pollutants causing the impairment are listed as total recoverable Aluminum, PCB (Aroclors), and dissolved Copper. EPA has not yet approved or established TMDLs for Sandia Canyon.

Refer to Section 4.7 for specific actions that will be taken when a water quality standard is exceeded.

4.0 SCHEDULES AND PROCEDURES

4.1 Good Housekeeping

See Section 3.1.2 of this SWPPP.

4.2 Maintenance

See Section 3.1.3 of this SWPPP.

4.3 Spill Prevention and Response

See Section 3.1.4 of this SWPPP.

4.4 Erosion and Sediment Control

See Section 3.1.5 of this SWPPP.

4.5 Employee Training

Employee training is essential to effective implementation of the SWPPP and MSGP requirements. The goals for the training program are to ensure that employees: (1) are aware of what happens when pollutants come in contact with stormwater; (2) are familiar with and will implement the requirements of this SWPPP; (3) are capable of preventing spills; (4) respond safely and effectively to an accident when one occurs; (5) recognize when there is an issue with a control measure; (6) recognize when additional control measures are necessary; and (7) identify situations that could lead to stormwater contamination.

Per Part 2.1.2.8 of the 2015 MSGP, training relevant to the SWPPP and MSGP is required for all workers at the facility that work in areas where industrial materials or activities are exposed to stormwater (MSGP sites); workers, 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 is designed to ensure these personnel understand the MSGP and SWPPP requirements, as well as their specific responsibilities regarding these requirements.

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 will be conducted at least annually. The DEP, DESH Group Leader and Pollution Prevention Team members are responsible for ensuring all appropriate personnel receive this training.

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 is 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 are kept on file in Attachment 11 of this SWPPP.

The topics in this SWPPP that are covered in the latest version of the facility-specific annual MSGP training (see Attachment 11) include the following:

- Overview of the SWPPP contents;
- 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 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 Routine Facility Inspections and Quarterly Visual Assessments

Routine inspections at this facility are conducted and documented monthly in accordance with EPC-CP-QP-023*, MSGP Routine Facility Inspections* (Attachment 16).

Visual assessments are conducted in accordance with EPC-CP-QP-064*, MSGP Stormwater Visual Assessments* (Attachment 18).

4.6.1 Routine Facility Inspections

At least once each calendar year, the routine facility inspection is conducted during a period when a stormwater discharge is occurring. A qualified member of the PPT (typically the DEP, a representative from the EPC-CP Storm Water Permitting/Compliance Team or EPC-CP Program Lead) performs the inspection. 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.

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 evaluated:

- 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.

Inspections performed by the PPT member are documented by completing the routine facility inspection form, which identifies all conditions requiring corrective action and other potential stormwater pollution issues that were encountered. All conditions requiring corrective actions identified during the inspection are addressed in accordance with Section 6.0 *Corrective Actions and Deadlines* of this plan. Facility personnel or the DEP may also perform daily, weekly, or other periodic facility surveys (walk downs) between monthly routine inspections to ensure compliance with the SWPPP and MSGP. Completed routine facility inspection forms are provided in Attachment 7 of this SWPPP and meet the requirements listed in the 2015 MSGP (Part 3.1.2.).

4.6.2 Quarterly Visual Assessments

Once each quarter (April 1-May 31, June 1-July 31, August 1-September 30, October 1-November 30) a stormwater sample is obtained and visual assessment performed at each outfall, if a measureable event occurred. A qualified member of the PPT (DEP, EPC-CP Storm Water Permitting/Compliance Team member or MSGP Program Lead) conducts the visual assessment. The visual assessment will 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 practicable thereafter. Alternatively, document why it was not possible to collect the sample within the first 30 minutes (i.e. adverse conditions, not enough flow, etc.); and
- 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.

Note: Snowmelt samples need only be collected during a period of measurable discharge.

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 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 substantially identical outfall.

The PPT member performing the visual assessment documents potential stormwater pollution problems that are observed during the assessment on the quarterly visual assessment form. Any required corrective action identified during the assessment is addressed in accordance with Section 6.0 *Corrective Actions and Deadlines* of this plan. Completed quarterly visual assessments are provided in Attachment 8 of this SWPPP and meet the requirements listed in the 2015 MSGP (Part 3.2.2).

4.7 Monitoring

Analytical monitoring comprised of Impaired Waters monitoring is performed annually on stormwater discharges from the site. Benchmark constituents are monitored quarterly. Monitoring occurs when storm events result in an actual discharge from the site and follow the preceding measurable storm event by at least 72 hours (3 days), unless documented that the storm event is representative of local storm events during the sampling period. For runoff from snowmelt, the monitoring is performed at a time when a measurable discharge from the site occurs.

Monitoring is conducted according to test procedures approved under 40 CFR Part 136. Runoff samples are 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 is collected as soon as practicable after the first 30 minutes and documentation is kept with the SWPPP explaining why it was not possible.

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 a sample according to the relevant monitoring schedule, a sample is collected during the next qualifying storm event or as soon as practicable.

Monitoring occurs at automated sampling station **MSGP02201** (Outfall 022) as identified in Section 1.3. Discharge from the facility is east to Sandia Canyon (impaired waters), which is a tributary of the Rio Grande located approximately 8.5 miles east of the facility.

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 Figure B-1.

Monitoring will continue annually for constituents associated with impaired waters until a constituent is no longer detected in stormwater samples.

If the impaired water or benchmark constituent value exceeds the New Mexico Water Quality criterion, the Pollution Prevention Team 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 benchmark or annual monitoring of the constituent (as required by Section 6.2 of the 2015 MSGP).

For each monitoring event, except snowmelt monitoring, the following information will be recorded and maintained through work orders, 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;
- 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.

All records of monitoring information, including all calibration and maintenance records are maintained for a minimum period of at least three years from the date the permit expires.

LANL's applicable stormwater monitoring procedures can be found in the following Attachments:

- EPC-CP-047, *Inspecting Stormwater Runoff Samplers and Retrieving Samples for the MSGP* (Attachment 19)
- EPC-CP-048, *Processing MSGP Stormwater Samples* (Attachment 20).

The table on the following page lists the current Summary of Monitoring Requirements. The monitoring values have been modified to reflect New Mexico water quality standards and are based on the most protective water quality standards from the Standards for Interstate and Intrastate Surface Waters (effective on February 28, 2018), 20.6.4.900 NMAC; and as set forth in Part 9.6.2.1 of the 2015 MSGP.

Summary of Monitoring Requirements

Required Monitoring for CY2020

Monitored Outfall	Monitoring Requirement	Industrial Sector	Assessment Unit	Analyte	Filtered/ Unfiltered	Regulatory Standard	Units	Regulatory Standard Type	Regulatory Standard Reference
022	Impaired Waters/ Quarterly Benchmark	AA	NM-9000.A_047	Al	F10u[1]	1010	ug/L	NM 2010 Aquatic Chronic 80 mg	20.6.4.900 NMAC Subpart I
	Impaired Waters	-	NM-9000.A_047	Cu	F[2]	7	ug/L	NM 2010 Aquatic Chronic 80 mg	20.6.4.900 NMAC Subpart I
	Quarterly Benchmark	AA	-	Fe	UF	1000	ug/L	MSGP QBM 2015	NMR050013 Sect 9.6.2.1
	Quarterly Benchmark	AA	-	NO3+NO2-N	UF	0.68	mg/L	MSGP QBM 2015	NMR050013 Sect 9.6.2.1
	Quarterly Benchmark	AA	-	Zn	F	99	ug/L	NM 2010 Aquatic Chronic 80 mg	20.6.4.900 NMAC Subpart I

[1]F10u – 10 µm filter
[2]F - 0.45 µm filter
Al=Aluminum
Cu=Copper
Fe=Iron
NO3+NO2-N=Nitrate plus Nitrite Nitrogen
Zn=Zinc
ug=microgram
mg=milligram
L-liter
MSGP=Multi-Sector General Permit
QBM=Quarterly Benchmark Monitoring
NM=New Mexico
NMAC=New Mexico Administrative Code

5.0 DOCUMENTATION FOR ELIGIBILITY CONSIDERATIONS UNDER OTHER FEDERAL LAWS

5.1 Endangered Species

The Final Site-Wide Environmental Impact Statement (EIS) 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 MSGP sites in accordance with Section 4.7 *Monitoring* of this plan. Corrective actions are taken as necessary as described in Section 6.0 *Corrective Actions and Deadlines* of this plan.

Part 5.2.2 of the 2015 MSGP requires areas of designated critical habitat for endangered or threatened species, as applicable, be included in the SWPPP. The *Threatened and Endangered Species Habitat Management Plan for Los Alamos National Laboratory* (LA-UR-17-29454) was last updated in October 2017 (see Attachment 13). This document provides a management strategy for the protection of threatened and endangered species and their habitats on LANL property. The MSGP IPaC Trust Resource Report (see Attachment 14) is also attached for informational purposes only.

5.2 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 RANT

6.0 CORRECTIVE ACTIONS AND DEADLINES

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) is reviewed and revised (as appropriate). The purpose is to ensure 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-stormwater 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.

When any of the following conditions occur, a review of the selection, design, installation, and implementation of control measures is 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
- The average of 4 quarterly sampling results exceeds an applicable benchmark. If less than 4 benchmark samples have been taken, but the results are such that an exceedance of the 4 quarter average is mathematically certain (i.e., if the sum of quarterly sample results to date is more than 4 times the benchmark level) this is considered a benchmark exceedance, triggering this review (see Section 4.7); or
- If an impaired water constituent exceeds the NM Water Quality criterion (see Section 4.7).

When the review identifies the need to modify the SWPPP, it will be revised within 14 calendar days of completion of the associated condition requiring corrective action.

6.1 Immediate Actions

When a condition requiring corrective action is identified, all reasonable steps necessary to minimize or prevent the discharge of pollutants are immediately taken (i.e. spill clean-up, scheduling repairs) until a permanent solution (if needed) can be implemented. Immediate action means all reasonable steps are taken the same workday or no later than the following workday (when it is too late in the day to take corrective action).

6.2 Subsequent Actions

When additional corrective actions are required (e.g. installing or making operational a new or modified control, completing repairs, ordering BMPs) they will be completed by the next storm event, if possible, or within 14 calendar days (from initial discovery). When it is determined that it is infeasible to complete corrective actions within 14 days, documentation of infeasibility and a schedule for completion of the work is documented in the CAR database, which will be completed no later than 45 days (from initial discovery). When it is determined that corrective actions will exceed 45 days, EPA is notified and

provided justification of why actions will exceed the timeframe; and a minimal amount of additional time to complete the work may be approved.

6.3 Corrective Action Documentation

Upon discovery, conditions requiring corrective action are documented by the DEP or EPC-CP on a Routine Facility Inspection Form and/or entered into the CAR database. The action will be kept open in the database until the issue has been resolved. Documentation of maintenance and repairs of stormwater control measures (BMPs) will be kept in Attachment 10 of this SWPPP. Where corrective actions result in changes to procedures or controls documented in this SWPPP, modifications to the SWPPP are made accordingly within 14 calendar days of completing the corrective action(s). LANL procedure EPC-CP-QP-022, *MSGP Corrective Actions* can be found in Attachment 17.

7.0 ACRONYMS

AOC	Area of Concern
BMP	Best Management Practice
CAR	Corrective Action Report
DEP	Deployed Environmental Professional
DESH	Deployed Environmental Safety and Health
DOE	Department of Energy
DO	Division Office
EIS	Environmental Impact Statement
ELG	Effluent Limitation Guidelines
EMD-ER	Emergency Management Division-Emergency Response
EPA	Environmental Protection Agency
EPC-CP	Environmental Protection and Compliance – Compliance Programs
FOD	Facility Operations Division
IPaC	Information for Planning and Consultation
LANL or the Laboratory	Los Alamos National Laboratory
LOG-HERG	Logistics – Heavy Equipment Roads & Grounds
MSGP or Permit	Multi-Sector General Permit
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
OWS	Oil/Water Separator
PCB	Polychlorinated Biphenyl
PPT	Pollution Prevention Team
SWMU	Solid Waste Management Unit
SWPPP	Stormwater Pollution Prevention Plan
SWWS	Sanitary Wastewater System

UI	Utilities and Institutional Facilities
UIS	Utilities and Infrastructure Support
URL	Uniform Resource Locator

8.0 SWPPP CERTIFICATION

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

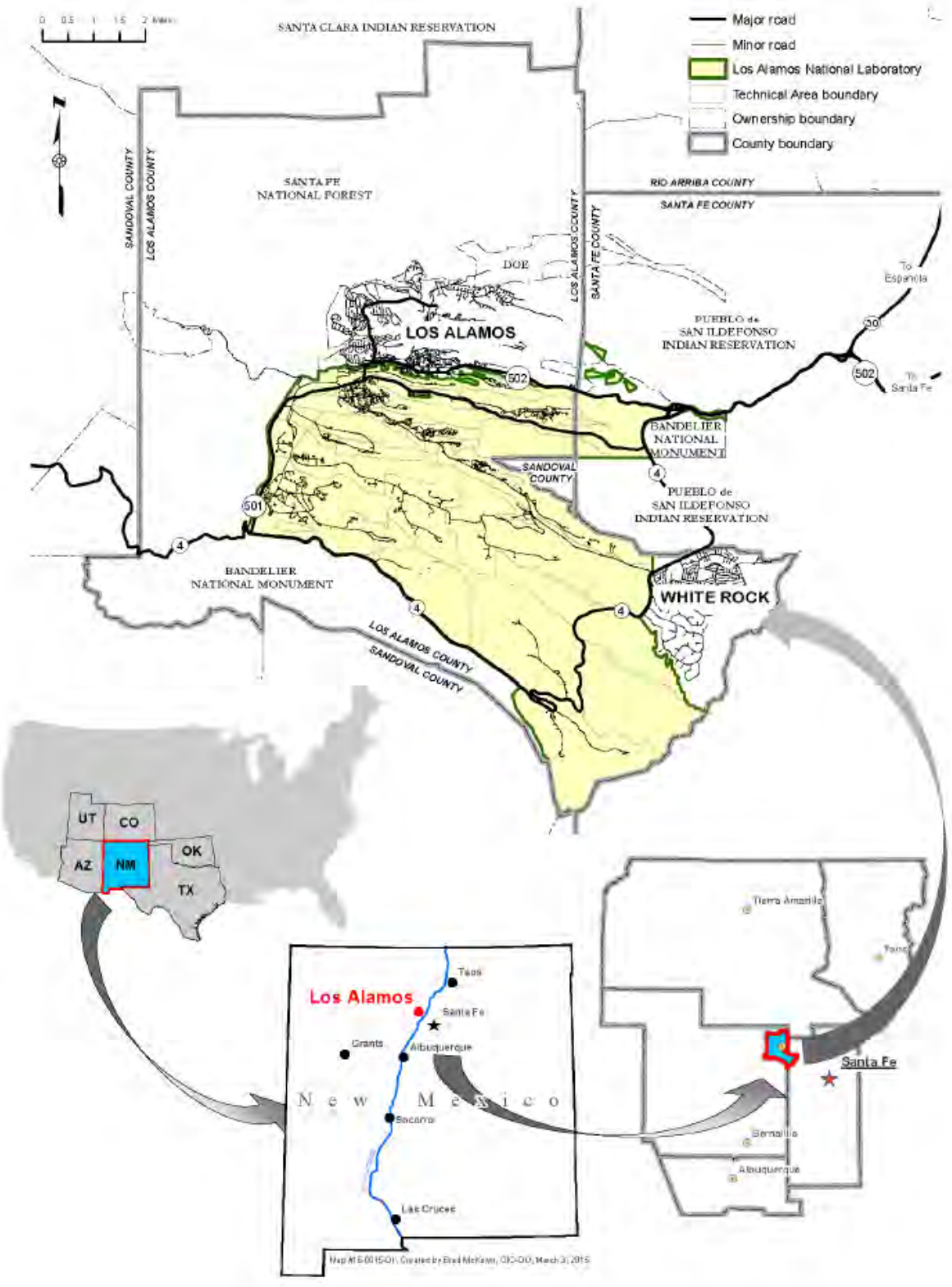
CERTIFICATION STATEMENT

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 Russell Stevens for Date 2/5/2020

Andrew W. Erickson
Facility Operations Director
Utilities and Institutional Facilities

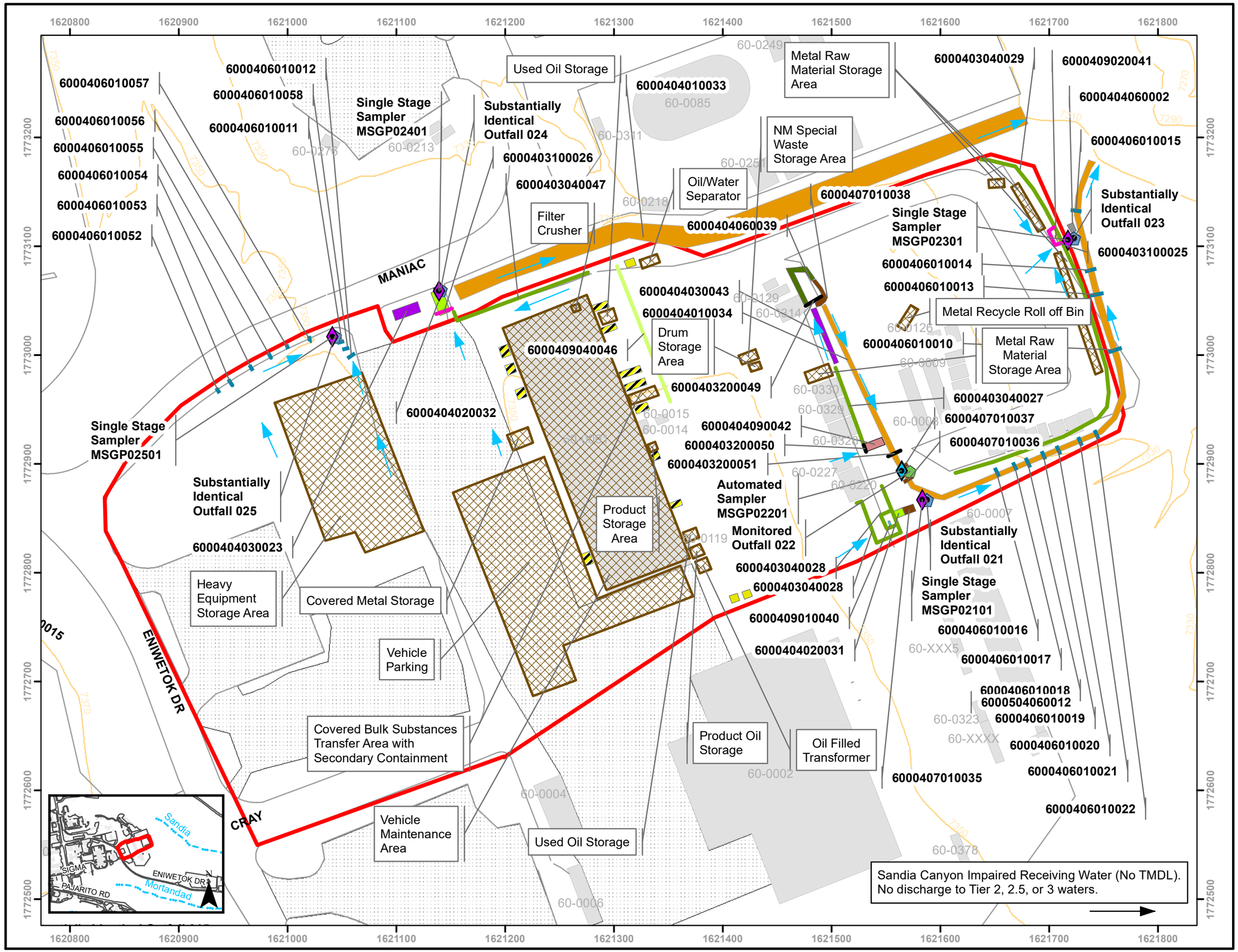
FIGURE A: GENERAL LOCATION MAP



Map(s)

FIGURE B-1: FACILITY SITE MAP

TA-60-1
HEAVY EQUIPMENT YARD
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, IFPROG
Date: July 2, 2019
Version 6

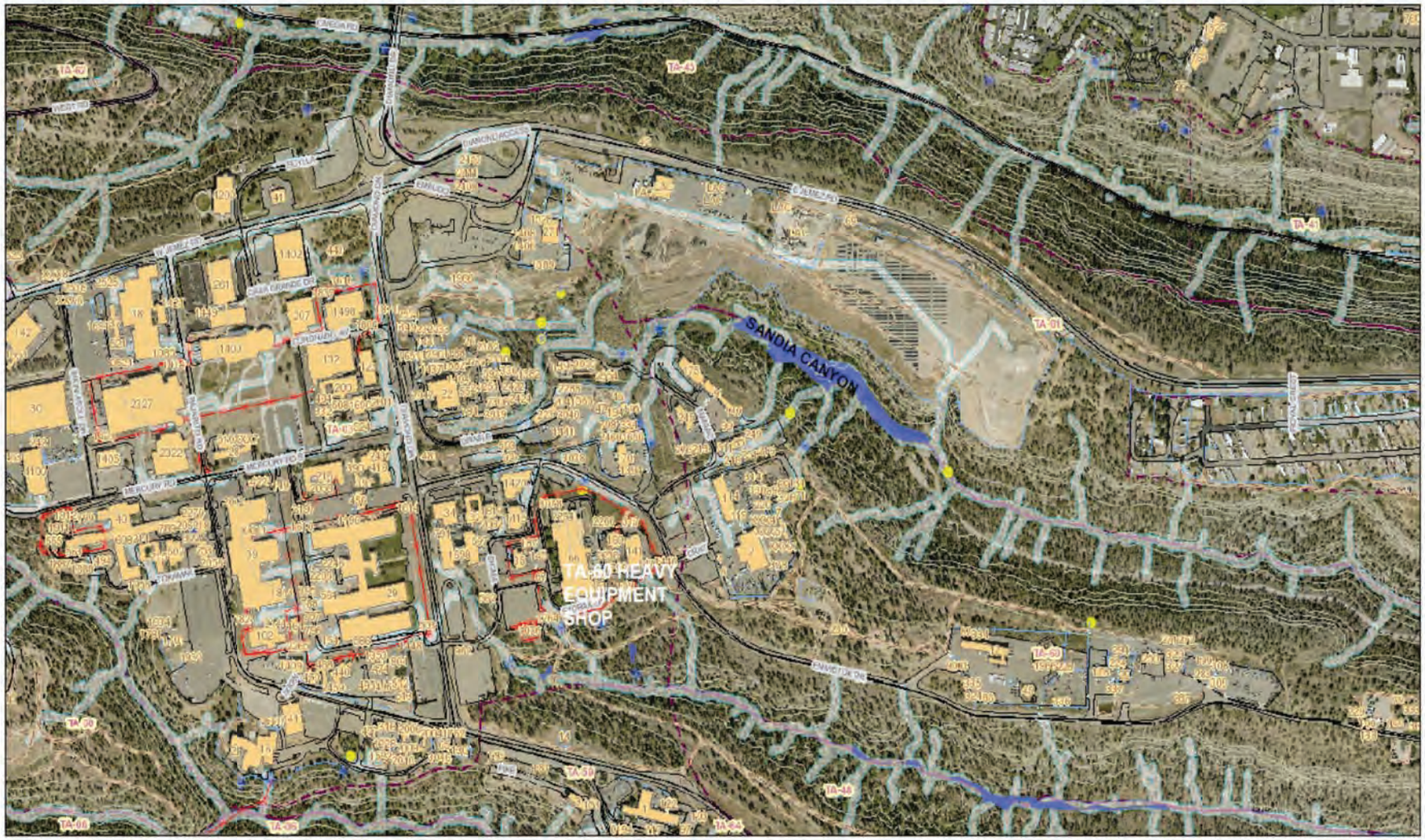
New Mexico State Plane Coordinate System
Central Zone (3002)
North American Datum, 1983 (NAD 83)
US Survey Ft

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-2: RECEIVING WATERS MAP



Buildings
Wetlands
Stormwater Monitoring Area (SMA)
Watercourse with Buffer
Gage Stations
TA Boundary

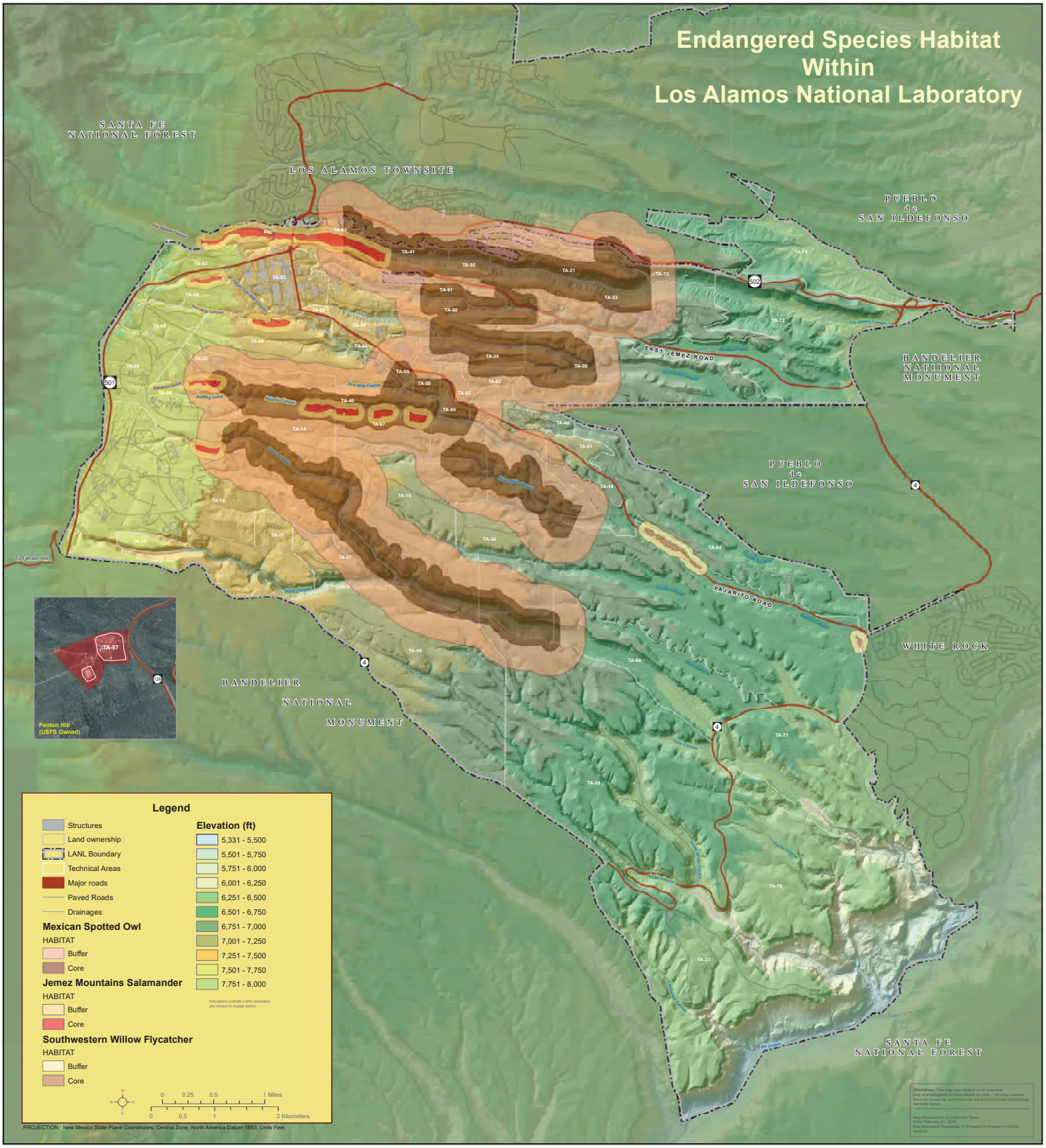
Scale: 1:6,804

0 0.075 0.15 0.3 mi

0 0.125 0.25 0.5 km

LANL, ENV Division

FIGURE B-3: LANL ENDANGERED SPECIES MAP


Endangered Species Habitat
Within
Los Alamos National Laboratory
SANTA FE
NATIONAL FOREST
LOS ALAMOS TOWNSITE
PUEBLO
de
SAN ILDEFONSO
BANDELIER
NATIONAL
MONUMENT
WHITE ROCK
EAST JEMEZ ROAD
PAJARITO ROAD
501
502
4
TA-57
Fenton Hill
(USFS Owned)
Legend
Structures
Land ownership
LANL Boundary
Technical Areas
Major roads
Paved Roads
Drainages
Mexican Spotted Owl
HABITAT
Buffer
Core
Jemez Mountains Salamander
HABITAT
Buffer
Core
Southwestern Willow Flycatcher
HABITAT
Buffer
Core
Elevation (ft)
5,331 - 5,500
5,501 - 5,750
5,751 - 6,000
6,001 - 6,250
6,251 - 6,500
6,501 - 6,750
6,751 - 7,000
7,001 - 7,250
7,251 - 7,500
7,501 - 7,750
7,751 - 8,000
Elevations outside LANL boundary are shown in muted colors.
0 0.25 0.5 1 Miles
0 0.5 1 2 Kilometers
PROJECTION: New Mexico State Plane Coordinates, Central Zone, North America Datum 1983, Units Feet.
Disclaimer: This map was created as an overview map of endangered species habitat at LANL. All other uses for this map should be confirmed with the Environmental Stewardship Services Group.
Map Produced by OID-DO-GIS Team
Date: February 21, 2014
Map Document Reference: X:\Projects\14-Projects\14-0020\14-0020

Attachment 1: **NOTICE OF INTENT, SUPPORTING DOCUMENTATION, AND UPDATES**

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
EPA's NPDES EREPORTING HELP DESK

10/26/2018

Triad National Security LLC
ATTN: Michael W. Hazen
PO Box 1663 MS K490
Los Alamos, NM 87545

Facility: Los Alamos National Laboratory
PO Box 1663
Los Alamos, NM 87545

NPDES ID: **NMR050013**

Dear Michael W. Hazen:

This letter acknowledges that you have submitted a complete Notice of Intent form to be covered under the NPDES Multi-Sector General Permit (MSGP) for stormwater discharges associated with industrial activity. Coverage under this permit begins at the conclusion of your 30-day waiting period, on **11/01/2018**, unless EPA notifies you that your authorization has been denied or delayed.

For tracking purposes, the following NPDES ID has been assigned to your Notice of Intent: **NMR050013**

As stated above, this letter acknowledges receipt of a complete Notice of Intent. However, it is not an EPA determination of the validity of the information you provided. Your eligibility for coverage under the Permit is based on the validity of the certification you provided. Your signature on the Notice of Intent certifies that you have read, understood, and are implementing all of the applicable requirements. An important aspect of this certification requires that you correctly determine whether you are eligible for coverage under this permit.

As you know, the MSGP requires you to have developed a Stormwater Pollution Prevention Plan (SWPPP) prior to submitting your NOI. The MSGP also includes specific requirements for implementing control measures (e.g., minimize exposure, good housekeeping, maintenance, spill prevention and response), conducting self-inspections and visual assessments of your discharges, taking corrective actions, and conducting staff training. You must comply with any specific requirements applicable to your industrial sector(s) in Part 8 and any state/tribal-specific requirements in Part 9 (see https://www.epa.gov/npdes/stormwater-discharges-industrial-activities). You are also required to submit an Annual Report in accordance with Part 7.5 of the MSGP that will contain the results from your past year's routine facility inspections, quarterly visual assessments, and corrective actions.

The MSGP includes five types of required analytical monitoring, one or more of which may apply to your discharge:

- Quarterly benchmark monitoring (see Part 6.2.1 and Part 8);
- Annual effluent limitations guidelines monitoring (see Part 6.2.2 and Part 8);
- State- or tribal-specific monitoring (see Part 6.2.3 and Part 9);
- Impaired waters monitoring (see Part 6.2.4); and

- Other monitoring as required by EPA (see Part 6.2.5).

Monitoring requirements in the MSGP (i.e., parameters required to be monitored and sample frequency) will be prepopulated on your electronic Discharge Monitoring Report (DMR) in EPA's NetDMR system, which is accessed at https://netdmr.epa.gov. Where you have determined that no monitoring requirements apply to your discharge, there is no need to access the NetDMR system. In order to obtain access to this system, you must complete the electronic signature process. Please refer to the following guidance for information about submitting monitoring reports through NetDMR: https://www.epa.gov/npdes/stormwater-discharges-industrial-activities#ereporting.

If you have general questions regarding the stormwater program or your responsibilities under the Multi-Sector General Permit, please contact:

EPA Region **06**
Name: **Nasim Jahan**
Phone: **(214) 665-7522**
Email: **jahan.nasim@epa.gov**

If you have questions about your Notice of Intent form, please call the EPA NPDES eReporting Help Desk at 1-877-227-8965 (toll free) or send an email to NPDESeReporting@epa.gov.

EPA NPDES eReporting Help Desk
Operated by Avanti Corporation
1200 Pennsylvania Ave., NW
Mail Code: 4203M
Washington, DC 20460
1-877-227-8965

TRIAD
National Security, LLC

Date: OCT 0 1 2018
Symbol: EPC-DO: 18-358
LA-UR: 18-29182
Locates Action No.: *N/A*

Stormwater Notice Processing Center
William Jefferson Clinton East Building – Room 7420
ATTN: 2015 MSGP Signature Agreement
U.S. Environmental Protection Agency
1201 Constitution Avenue, NW
Washington, DC 20004

Subject: National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP) Notice of Intent (NOI) Reporting Pursuant to Part B.12.C

To Whom It May Concern:

This letter serves to document the transmittal of a NOI for Stormwater Discharges Associated with Industrial Activity under the NPDES MSGP for Triad National Security, LLC (Triad) as a new operator for Los Alamos National Laboratory (LANL) pursuant to Part B.12.C of the 2015 MSGP. Triad is replacing Los Alamos National Security, LLC (LANS) as operator of LANL effective November 1, 2018.

EPA's Electronic Reporting Rule requires that NOIs be submitted using the NeT-MSGP program service on the EPA Central Data Exchange system. However, due to the following system limitations previously identified by LANS and coordinated with EPA Region 6 personnel, a complete and accurate NOI cannot be submitted using NeT-MSGP.

1. Part 9.6.2 of the 2015 MSGP, Permit Conditions for the State of New Mexico, requires that benchmark values be modified to reflect New Mexico water quality standards for facilities in New Mexico, based on benchmark values from the Standards for Interstate and Intrastate Surface Waters (20.6.4.900 New Mexico Administrative Code [NMAC]). These modified benchmark values are not recognized by NeT-MSGP and populated in NetDMR.
2. The 2018-2020 State of New Mexico Clean Water Act §303(d)/§305(b) Integrated Report requires monitoring of impaired waters pollutants not available for selection in NeT-MSGP (e.g., Adjusted Gross Alpha and Total Recoverable Aluminum).
3. 20.6.4.900 NMAC requires monitoring of certain modified benchmark and impaired waters metals pollutants as dissolved species, which are not available for selection in NeT-MSGP. Currently, only total metals species may be assigned in NeT-MSGP.
4. Due to extended frozen conditions during the winter and a semi-arid climate, Triad will implement an alternative 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 alternate monitoring schedule

does not coincide with the default four (4) three-month quarters listed in Part 6.1.7 of the 2015 MSGP and NeT-MSGP does not allow input of an alternate monitoring schedule. Accordingly, annual impaired waters and Effluent Limitation Guideline monitoring will be conducted between April 1 and November 30 of each year.

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

These system limitations directly result in inaccurate pollutants, limits, monitoring periods and DMR due dates being populated in NetDMR.

Additionally, Part 6.1.7 of the 2015 MSGP states that monitoring requirements in the permit begin in the first full quarter following the date of discharge authorization. Per the alternative monitoring schedule above, Triad interprets monitoring requirements to begin April 1, 2019.

EPA Region 6 has recognized the challenges that the outgoing operator (LANS) has identified with NeT-MSGP related to compliance with Part 9.6.2 of the 2015 MSGP, Permit Conditions for the State of New Mexico, and has been instrumental in helping LANS to resolve these issues. Thus, Triad was granted a waiver to submit a paper NOI from Nasim Jahan (EPA Region 6) on 9/26/2018 (Enclosure 1). To facilitate complete and accurate information in Net-MSGP and NetDMR, Triad is submitting a paper NOI on EPA Form 3510-6 (Enclosure 2), and an additional table defining monitored outfall-specific Sector and impaired waters limit sets, monitoring periods and DMR due dates (Enclosure 3) for population in the NetDMR system. EPA previously implemented similar monitoring requirements for LANL's 2015 MSGP coverage as operated by LANS under NPDES ID NMR053195.

Your assistance is greatly appreciated as Triad is committed to maintaining compliance with the MSGP requirements. If you have any questions, please contact Terrill Lemke (505) 665-2397 or Leslie Dale (505) 606-2371.

Sincerely,

Michael W. Hazen
Associate Laboratory Director
Triad National Security, LLC

MWH:TWL:LJD:jdm

Enclosure(s): 1) EPA Region 6 Approval for Triad National Security, LLC to Submit a Paper NOI
2) NOI for Stormwater Discharges Associated with Industrial Activity under the NPDES Multi-Sector General Permit

3) NetDMR Monitoring Requirements for Los Alamos National Laboratory, Operated by Triad National Security, LLC
4) Threatened and Endangered Species Protection Concurrence Letters from the United States Department of Interior, Fish and Wildlife Service

Copy: Nasim Jahan, EPA Region 6, (E-File),
Helen Nguyen, EPA Region 6, (E-File),
Sarah Holcomb, NMED/SWQB, (E-File),
Karen E. Armijo, NA-LA, (E-File),
Thomas E. Mason, Triad, (E-File),
Kelly Beierschmitt, Triad, (E-File),
Kevin T. Amery, Triad, (E-File),
J. Barton Lounsbury, Triad, (E-File),
G. Drew Fuller, Triad, (E-File),
Timothy A. Dolan, LC-ESH, (E-File),
William R. Mairson, ADESH, (E-File),
Enrique Torres, EPC-DO, (E-File),
Taunia S. Van Valkenburg, EPC-CP, (E-File),
Terrill W. Lemke, EPC-CP (E-File),
Holly L. Wheeler, EPC-CP (E-File),
Leslie J. Dale, EPC-CP (E-File),
locatestream@lanl.gov (E-File),
adesh-records@lanl.gov (E-File),
epc-correspondence@lanl.gov (E-File)

ENCLOSURE 1

EPA Region 6 Approval for Triad National Security, LLC
to Submit a Paper NOI

EPC-DO: 18-358

LA-UR-18-29182

Date: OCT 0 1 2018

Dale, Leslie J

From: Lemke, Terrill W
Sent: Wednesday, September 26, 2018 4:16 PM
To: Dolan, Timothy Aloysius; Dale, Leslie J; Wheeler, Holly Lynn
Subject: FW: Request for LANL Paper MSGP NOI Waiver

Follow Up Flag: Follow up
Flag Status: Flagged

FYI

Terrill Lemke, PE, CPESC, CISEC
Environmental Compliance Programs
Los Alamos National Laboratory
Los Alamos, NM
Office: 505-665-2397
Cell: 505-699-0725

From: Jahan, Nasim <Jahan.Nasim@epa.gov>
Sent: Wednesday, September 26, 2018 2:43 PM
To: Lemke, Terrill W <tlemke@lanl.gov>
Cc: Emily Gorman <emily@avanticorporation.com>
Subject: RE: Request for LANL Paper MSGP NOI Waiver

Dear Mr. Terrill:

EPA, Region 6 is approving your request for paper submission as the facility is unable to submit the NOI online.. Please mail the hardcopies to the following address:

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

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

Thank you,

Nasim Jahan

October 1 through November 30

These system limitations directly result in inaccurate pollutants, limits, monitoring periods and DMR due dates being populated in NetDMR.

EPA Region 6 has recognized the challenges that the outgoing operator (LANS) has identified with NeT-MSGP related to compliance with Part 9.6.2 of the 2015 MSGP, Permit Conditions for the State of New Mexico, and has been instrumental in helping LANS to resolve these issues. Therefore, per your verbal direction, we are requesting a waiver for Triad to submit a paper NOI in lieu of submitting an inaccurate and incomplete NOI in NeT-MSGP. Please advise at your earliest convenience if you concur with our submittal of a paper NOI, as we must submit by Oct 2.

We appreciate your assistance in helping us maintain compliance. If you have any questions, please contact me at (505) 665-2397.

Terrill

Terrill Lemke, PE, CPESC, CISEC
Environmental Compliance Programs
Los Alamos National Laboratory
Los Alamos, NM
Office: 505-665-2397
Cell: 505-699-0725

ENCLOSURE 2

NOI for Stormwater Discharges Associated with Industrial Activity under the NPDES Multi-Sector General Permit

EPC-DO: 18-358

LA-UR-18-29182

Date: OCT 0 1 2018

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: 09/26/2018

* **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):

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

Note: Facility had 2015 MSGP coverage under Permit ID NMR053195 with Los Alamos National Security, LLC as operator.

C. Facility Operator Information

1. Operator Information:

Operator Name: Triad National Security LLC

Mailing Address:

Street: PO Box 1663 MS K490

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: Triad 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: 35.8728° N (decimal degrees) Longitude: 106.3211° 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: 60.50 (to the nearest quarter acre)

8. Sector-Specific Information ***NOTE: Sectors do not apply to every outfall. Refer to Section E.3 for Outfall-specific Sector associations.***

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: 4212 OR **Primary Activity Code:**

Sector: P **Subsector:** P1

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

Sector: A **Subsector:** A4 **Sector:** D **Subsector:** D1 **Sector:** F **Subsector:** F4

Sector: N **Subsector:** N2 (Not N1) **Sector:** O **Subsector:** O1 **Sector:** AA **Subsector:** AA1

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) ***Note: Refer to Enclosure 3 for NetDMR Outfall-specific Sector and Impaired Waters Limit Sets.***

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 (Sector AA, Subsector AA1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**TMDL Name and ID:** N/A **Pollutant(s) for which there is a TMDL:** N/A
Latitude	35.875797			
Longitude	-106.327580			
Outfall ID	005 (Sector O, Subsector O1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector O, Subsector O1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	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 (Sector O, Subsector O1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	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 (Sector O, Subsector O1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	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 (Sector O, Subsector O1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	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 (Sector O, Subsector O1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector O, Subsector O1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector O, Subsector O1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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	017 (Sectors AA, F Subsectors AA1, F4)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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:				

Outfall ID	013 (Sectors AA, F Subsectors AA1, F4)	Mortandad Canyon (Within LANL)	51931 Adjusted Gross Alpha; 01040 Copper, dissolved [as Cu]; 71900 Mercury, total [as Hg]; 39516 Polychlorinated biphenyls [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: 017				
Outfall ID	014 (Sectors AA, F Subsectors AA1, F4)	Mortandad Canyon (Within LANL)	51931 Adjusted Gross Alpha; 01040 Copper, dissolved [as Cu]; 71900 Mercury, total [as Hg]; 39516 Polychlorinated biphenyls [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: 017				
Outfall ID	015 (Sectors AA, F Subsectors AA1, F4)	Mortandad Canyon (Within LANL)	51931 Adjusted Gross Alpha; 01040 Copper, dissolved [as Cu]; 71900 Mercury, total [as Hg]; 39516 Polychlorinated biphenyls [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: 017				
Outfall ID	016 (Sectors AA, F Subsectors AA1, F4)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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: 017				

Outfall ID	019 (Sectors AA, F Subsectors AA1, F4)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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: 017				
Outfall ID	020 (Sectors AA, F Subsectors AA1, F4)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector N, Subsector N2)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector P, Subsector P1)	Mortandad Canyon (within LANL)	51931 Adjusted Gross Alpha; 01040 Copper, dissolved [as Cu]; 71900 Mercury, total [as Hg]; 39516 Polychlorinated biphenyls [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 (Sector P, Subsector P1)	Mortandad Canyon (within LANL)	51931 Adjusted Gross Alpha; 01040 Copper, dissolved [as Cu]; 71900 Mercury, total [as Hg]; 39516 Polychlorinated biphenyls [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 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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 (Sector P, Subsector P1)	Mortandad Canyon (within LANL)	51931 Adjusted Gross Alpha; 01040 Copper, dissolved [as Cu]; 71900 Mercury, total [as Hg]; 39516 Polychlorinated biphenyls [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 (Sector P, Subsector P1)	Mortandad Canyon (within LANL)	51931 Adjusted Gross Alpha; 01040 Copper, dissolved [as Cu]; 71900 Mercury, total [as Hg]; 39516 Polychlorinated biphenyls [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	074 (Sector A, Subsector A4)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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: _____				
Outfall ID	073 (Sector A, Subsector A4)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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: 074				
Outfall ID	075 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]; 00010 Temperature, water deg. centigrade	**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: _____				

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)?

82 (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: Michael W Hazen

Title: Associate Laboratory Director

Signature: [signature]

Date: 10/01/2018

E-mail: mhazen@lanl.gov

ENCLOSURE 3

NetDMR Monitoring Requirements for Los Alamos National Laboratory, Operated by Triad National Security, LLC

EPC-DO: 18-358

LA-UR-18-29182

Date: OCT 0 1 2018

							ELG, Modified Benchmark, and Impaired Waters Limits per MSGP Section 9.6.2 and the NM Water Quality Standards (20.6.4.900 NMAC [New Mexico Administrative Code])										
Permit ID	Facility	Permitted Feature	Sector(s)	Subsector	Proposed Consolidated Discharge # (Limit Set)	Discharge Description	Parameter Code	Parameter Name	Symbol	Quality Value	Limit Type	Units	Freq. of Analysis	Smpl. Type	Monitoring Period Start Date	Monitoring Period End Date	DMR Due Date
TBD	Los Alamos National Laboratory	002	AA	AA1	002-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
TBD	Los Alamos National Laboratory	002	AA	AA1	002-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
TBD	Los Alamos National Laboratory	002	AA	AA1	002-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
TBD	Los Alamos National Laboratory	002	AA	AA1	002-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
TBD	Los Alamos National Laboratory	002	AA	AA1	002-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
TBD	Los Alamos National Laboratory	002	AA	AA1	002-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
TBD	Los Alamos National Laboratory	002	AA	AA1	002-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
TBD	Los Alamos National Laboratory	002	AA	AA1	002-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
TBD	Los Alamos National Laboratory	002	AA	AA1	002-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
TBD	Los Alamos National Laboratory	002	AA	AA1	002-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
TBD	Los Alamos National Laboratory	002	AA	AA1	002-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
TBD	Los Alamos National Laboratory	002	AA	AA1	002-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
TBD	Los Alamos National Laboratory	002	AA	AA1	002-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	002	AA	AA1	002-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	002	AA	AA1	002-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	002	AA	AA1	002-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	002	AA	AA1	002-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	002	AA	AA1	002-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	002	AA	AA1	002-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	002	AA	AA1	002-IW	IW - Impaired Water	00010 1 0	Temperature, water deg. centigrade	<=	24	Maximum	deg C	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	005	O	O1	005-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
TBD	Los Alamos National Laboratory	005	O	O1	005-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
TBD	Los Alamos National Laboratory	005	O	O1	005-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
TBD	Los Alamos National Laboratory	005	O	O1	005-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	005	O	O1	005-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	005	O	O1	005-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	005	O	O1	005-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	005	O	O1	005-IW	IW - Impaired Water	00010 1 0	Temperature, water deg. centigrade	<=	24	Maximum	deg C	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	009	O	O1	009-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
TBD	Los Alamos National Laboratory	009	O	O1	009-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
TBD	Los Alamos National Laboratory	009	O	O1	009-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
TBD	Los Alamos National Laboratory	009	O	O1	009-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	009	O	O1	009-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	009	O	O1	009-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	009	O	O1	009-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	009	O	O1	009-IW	IW - Impaired Water	00010 1 0	Temperature, water deg. centigrade	<=	24	Maximum	deg C	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	012	O	O1	012-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
TBD	Los Alamos National Laboratory	012	O	O1	012-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
TBD	Los Alamos National Laboratory	012	O	O1	012-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
TBD	Los Alamos National Laboratory	012	O	O1	012-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	012	O	O1	012-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	012	O	O1	012-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	012	O	O1	012-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	012	O	O1	012-IW	IW - Impaired Water	00010 1 0	Temperature, water deg. centigrade	<=	24	Maximum	deg C	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019

							ELG, Modified Benchmark, and Impaired Waters Limits per MSGP Section 9.6.2 and the NM Water Quality Standards (20.6.4.900 NMAC [New Mexico Administrative Code])									
Permit ID	Facility	Permitted Feature	Sector(s)	Subsector	Proposed Consolidated Discharge # (Limit Set)	Discharge Description	Parameter Code	Parameter Name	Symbol	Quality Value	Limit Type	Units	Freq. of Analysis	Smpl. Type	Monitoring Period Start Date	Monitoring Period End Date	DMR Due Date
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-IW	IW - Impaired Water	00010 1 0	Temperature, water deg. centigrade	<=	24	Maximum	deg C	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-IW	IW - Impaired Water	00010 1 0	Temperature, water deg. centigrade	<=	24	Maximum	deg C	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	022	P	P1	022-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	022	P	P1	022-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	022	P	P1	022-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	022	P	P1	022-IW	IW - Impaired Water	00010 1 0	Temperature, water deg. centigrade	<=	24	Maximum	deg C	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	026	P	P1	026-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	026	P	P1	026-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	026	P	P1	026-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020

							ELG, Modified Benchmark, and Impaired Waters Limits per MSGP Section 9.6.2 and the NM Water Quality Standards (20.6.4.900 NMAC [New Mexico Administrative Code])									
Permit ID	Facility	Permitted Feature	Sector(s)	Subsector	Proposed Consolidated Discharge # (Limit Set)	Discharge Description	Parameter Code	Parameter Name	Symbol	Quality Value	Limit Type	Units	Freq. of Analysis	Smpl. Type	Monitoring Period Start Date	Monitoring Period End Date	DMR Due Date
TBD	Los Alamos National Laboratory	026	P	P1	026-IW	IW - Impaired Water	00010 1 0	Temperature, water deg. centigrade	<=	24	Maximum	deg C	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	029	N	N2	029-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	029	N	N2	029-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	029	N	N2	029-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	029	N	N2	029-IW	IW - Impaired Water	00010 1 0	Temperature, water deg. centigrade	<=	24	Maximum	deg C	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	031	P	P1	031-IW	IW - Impaired Water	51931 1 0	Adjusted Gross Alpha	<=	15	Maximum	pCi/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	031	P	P1	031-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	11	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	031	P	P1	031-IW	IW - Impaired Water	71900 1 0	Mercury, total [as Hg]	<=	0.77	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	031	P	P1	031-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	032	P	P1	032-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	032	P	P1	032-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	032	P	P1	032-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	032	P	P1	032-IW	IW - Impaired Water	00010 1 0	Temperature, water deg. centigrade	<=	24	Maximum	deg C	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	036	P	P1	036-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	036	P	P1	036-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	036	P	P1	036-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	036	P	P1	036-IW	IW - Impaired Water	00010 1 0	Temperature, water deg. centigrade	<=	24	Maximum	deg C	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	039	P	P1	039-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	039	P	P1	039-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	039	P	P1	039-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	039	P	P1	039-IW	IW - Impaired Water	00010 1 0	Temperature, water deg. centigrade	<=	24	Maximum	deg C	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	042	P	P1	042-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	042	P	P1	042-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	042	P	P1	042-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	042	P	P1	042-IW	IW - Impaired Water	00010 1 0	Temperature, water deg. centigrade	<=	24	Maximum	deg C	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	043	D	D1	043-D1	D1 - Asphalt Paving and Roofing Materials and Lubricant Manufacturing	00530 1 0	Solids, total suspended	<=	100	Maximum	mg/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
TBD	Los Alamos National Laboratory	043	D	D1	043-D1	D1 - Asphalt Paving and Roofing Materials and Lubricant Manufacturing	00530 1 0	Solids, total suspended	<=	100	Maximum	mg/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
TBD	Los Alamos National Laboratory	043	D	D1	043-D1	D1 - Asphalt Paving and Roofing Materials and Lubricant Manufacturing	00530 1 0	Solids, total suspended	<=	100	Maximum	mg/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
TBD	Los Alamos National Laboratory	043	D	D1	043-D1	D1 - Asphalt Paving and Roofing Materials and Lubricant Manufacturing	00530 1 0	Solids, total suspended	<=	100	Maximum	mg/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	043	D	D1	043-1D	1D - Asphalt Paving and Roofing Materials and Lubricant Manufacturing	00556 1 0	Oil & Grease	<=	10	30-Day Average	mg/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	043	D	D1	043-1D	1D - Asphalt Paving and Roofing Materials and Lubricant Manufacturing	00556 1 0	Oil & Grease	<=	15	Daily Maximum	mg/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	043	D	D1	043-1D	1D - Asphalt Paving and Roofing Materials and Lubricant Manufacturing	00400 1 0	pH	>=	6	Minimum	SU	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	043	D	D1	043-1D	1D - Asphalt Paving and Roofing Materials and Lubricant Manufacturing	00400 1 0	pH	<=	9	Maximum	SU	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	043	D	D1	043-1D	1D - Asphalt Paving and Roofing Materials and Lubricant Manufacturing	00530 1 0	Solids, total suspended	<=	15	30-Day Average	mg/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	043	D	D1	043-1D	1D - Asphalt Paving and Roofing Materials and Lubricant Manufacturing	00530 1 0	Solids, total suspended	<=	23	Daily Maximum	mg/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	043	D	D1	043-IW	IW - Impaired Water	51931 1 0	Adjusted Gross Alpha	<=	15	Maximum	pCi/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020

							ELG, Modified Benchmark, and Impaired Waters Limits per MSGP Section 9.6.2 and the NM Water Quality Standards (20.6.4.900 NMAC [New Mexico Administrative Code])									
Permit ID	Facility	Permitted Feature	Sector(s)	Subsector	Proposed Consolidated Discharge # (Limit Set)	Discharge Description	Parameter Code	Parameter Name	Symbol	Quality Value	Limit Type	Units	Freq. of Analysis	Smpl. Type	Monitoring Period Start Date	Monitoring Period End Date	DMR Due Date
TBD	Los Alamos National Laboratory	043	D	D1	043-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	11	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	043	D	D1	043-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	043	D	D1	043-IW	IW - Impaired Water	71900 1 0	Mercury, total [as Hg]	<=	0.77	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	074	A	A4	074-A4	A4 - Hardwood Dimension and Flooring Mills	81017 1 0	Chemical Oxygen Demand [COD]	<=	120	Maximum	mg/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
TBD	Los Alamos National Laboratory	074	A	A4	074-A4	A4 - Hardwood Dimension and Flooring Mills	00530 1 0	Solids, total suspended	<=	100	Maximum	mg/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
TBD	Los Alamos National Laboratory	074	A	A4	074-A4	A4 - Hardwood Dimension and Flooring Mills	81017 1 0	Chemical Oxygen Demand [COD]	<=	120	Maximum	mg/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
TBD	Los Alamos National Laboratory	074	A	A4	074-A4	A4 - Hardwood Dimension and Flooring Mills	00530 1 0	Solids, total suspended	<=	100	Maximum	mg/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
TBD	Los Alamos National Laboratory	074	A	A4	074-A4	A4 - Hardwood Dimension and Flooring Mills	81017 1 0	Chemical Oxygen Demand [COD]	<=	120	Maximum	mg/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
TBD	Los Alamos National Laboratory	074	A	A4	074-A4	A4 - Hardwood Dimension and Flooring Mills	00530 1 0	Solids, total suspended	<=	100	Maximum	mg/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
TBD	Los Alamos National Laboratory	074	A	A4	074-A4	A4 - Hardwood Dimension and Flooring Mills	81017 1 0	Chemical Oxygen Demand [COD]	<=	120	Maximum	mg/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	074	A	A4	074-A4	A4 - Hardwood Dimension and Flooring Mills	00530 1 0	Solids, total suspended	<=	100	Maximum	mg/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	074	A	A4	074-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	074	A	A4	074-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	074	A	A4	074-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	074	A	A4	074-IW	IW - Impaired Water	00010 1 0	Temperature, water deg. centigrade	<=	24	Maximum	deg C	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	075	P	P1	075-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	075	P	P1	075-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	075	P	P1	075-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
TBD	Los Alamos National Laboratory	075	P	P1	075-IW	IW - Impaired Water	00010 1 0	Temperature, water deg. centigrade	<=	24	Maximum	deg C	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020

ENCLOSURE 4

Threatened and Endangered Species Protection Concurrence Letters from the United States Department of Interior, Fish and Wildlife Service

EPC-DO: 18-358

LA-UR-18-29182

Date: OCT 0 1 2018

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,

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.

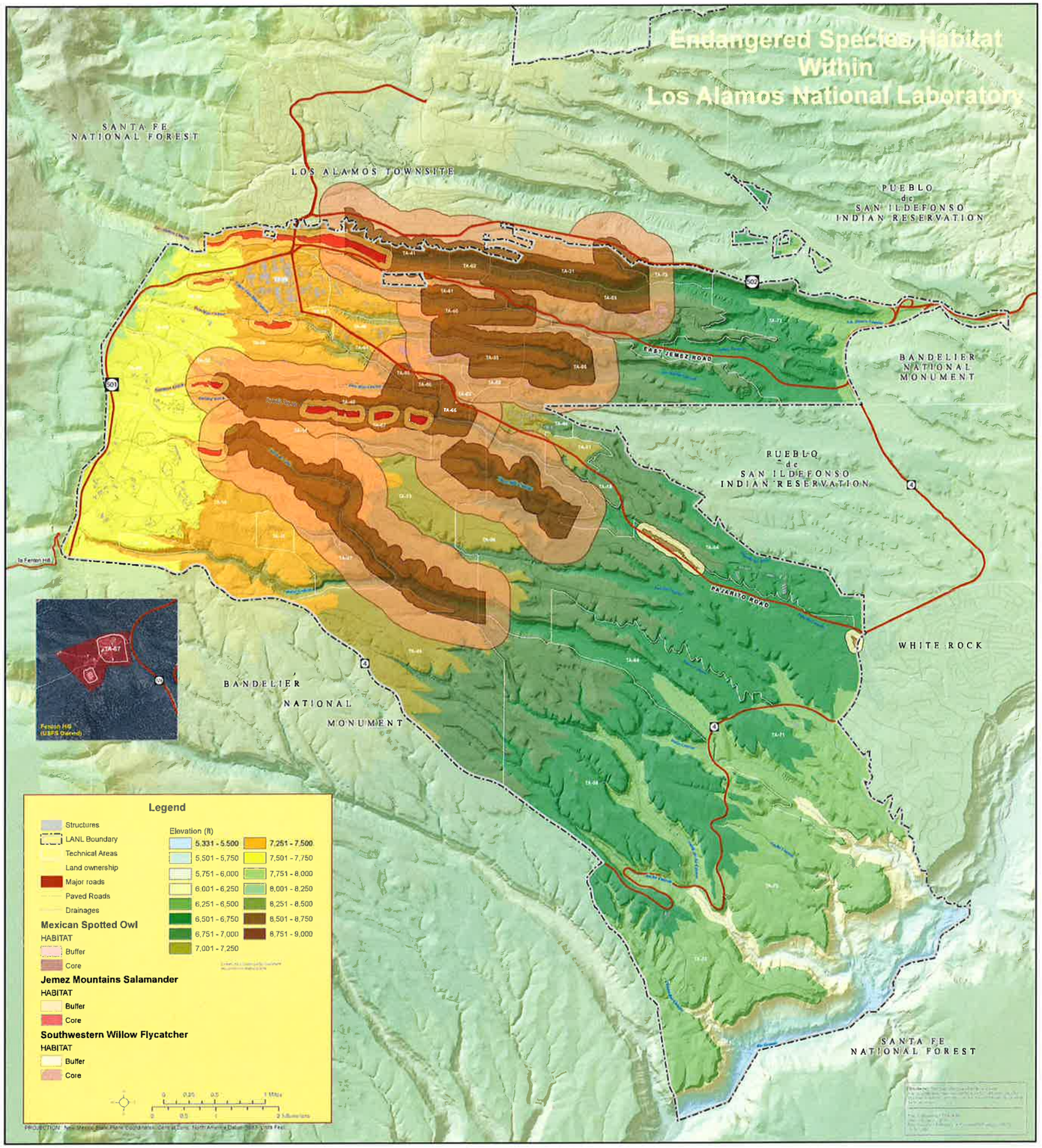
This concludes section 7 consultation regarding the proposed action. If monitoring or other information results in modification or the inability to complete all aspects of the proposed action, consultation should be reinitiated. Please contact the Service if: 1) future surveys detect listed, proposed 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,

for Wally Murphy
Field Supervisor

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


Endangered Species Habitat
Within
Los Alamos National Laboratory
SANTA FE
NATIONAL FOREST
LOS ALAMOS TOWNSITE
PUEBLO
de
SAN ILDEFONSO
INDIAN RESERVATION
BANDELIER
NATIONAL
MONUMENT
EAST JEMEZ ROAD
PUEBLO
de
SAN ILDEFONSO
INDIAN RESERVATION
PAJARITO ROAD
WHITE ROCK
BANDELIER
NATIONAL
MONUMENT
SANTA FE
NATIONAL FOREST
TA-67
Fenton Hill
(USFS Owned)
Legend
Structures
LANL Boundary
Technical Areas
Land ownership
Major roads
Paved Roads
Drainages
Mexican Spotted Owl
HABITAT
Buffer
Core
Jemez Mountains Salamander
HABITAT
Buffer
Core
Southwestern Willow Flycatcher
HABITAT
Buffer
Core
Elevation (ft)
5,331 - 5,500
5,501 - 5,750
5,751 - 6,000
6,001 - 6,250
6,251 - 6,500
6,501 - 6,750
6,751 - 7,000
7,001 - 7,250
7,251 - 7,500
7,501 - 7,750
7,751 - 8,000
8,001 - 8,250
8,251 - 8,500
8,501 - 8,750
8,751 - 9,000

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
EPA's NPDES EREPORTING HELP DESK

06/27/2019

Triad National Security LLC
ATTN: Enrique Torres
PO Box 1663, MS K490
Los Alamos, NM 87545

Facility: Los Alamos National Laboratory
PO Box 1663
Los Alamos, NM 87545

NPDES ID: **NMR050013**

Dear Enrique Torres:

This letter acknowledges that you have submitted a complete Multi Sector General Permit (MSGP) Notice of Intent (NOI) **Modification** form. It has been processed and the information you provided has been updated in EPA's database.

If you have other questions concerning the stormwater program, please contact EPA Region 6:

Name: Nasim Jahan
Phone: (214) 665-7522
Email: Jahan.Nasim@epa.gov

If you have any questions regarding this letter, please call the EPA NPDES eReporting Help Desk at 1-877-227-8965 (toll free) or send an email to NPDESeReporting@epa.gov.

EPA NPDES eReporting Help Desk
Operated by Avanti Corporation
1200 Pennsylvania Ave., NW
Mail Code: 4203M
Washington, DC 20460
1-877-227-8965

Los Alamos
NATIONAL LABORATORY
EST. 1943

Environmental Protection and Compliance
Los Alamos National Laboratory
PO Box 1663, K491
Los Alamos, NM 87545
(505) 667-2211

Date: JUN 1 1 2019
Symbol: EPC-DO: 19-191
LA-UR: 19-25199

Stormwater Notice Processing Center
William Jefferson Clinton East Building – Room 7420
ATTN: 2015 MSGP Signature Agreement
U.S. Environmental Protection Agency
1201 Constitution Avenue, NW
Washington, DC 20004

Subject: National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR050013, Multi-Sector General Permit (MSGP) Change Notice of Intent (Change NOI) Reporting Pursuant to Part 7.4

To Whom It May Concern:

This letter serves to submit Change NOI information to modify outfalls and monitoring requirements related to MSGP Permit Tracking No. NMR050013 for Triad National Security, LLC (Triad) as the operator for Los Alamos National Laboratory pursuant to Part 7.4 of the MSGP.

Environmental Protection Agency's (EPA's) Electronic Reporting Rule requires that NOIs be submitted using the NeT-MSGP program service on the EPA Central Data Exchange system. However, due to system limitations previously identified by Triad and verified with EPA Region 6 personnel, a complete and accurate NOI could not be created in NeT-MSGP. Therefore, change NOI information cannot be submitted using NeT-MSGP (Attachment 1). As a result, Triad was granted a waiver to submit paper NOI forms from Nasim Jahan (EPA Region 6) on September 26, 2018 (Attachment 1).

Part 6.2.4.1 of the MSGP indicates no monitoring is required when a waterbody's impairment is related to a non-pollutant. EPA Region 6 has concurred that temperature is a non-pollutant, therefore monitoring for temperature in stormwater as an impairment is not required (Attachment 2).

To accurately update the NOI and to facilitate complete and accurate information in NetDMR, Triad is submitting a paper NOI on EPA Form 3510-6 (Attachment 3) and an additional table defining

modifications to the monitored outfall-specific Sector and impaired waters limits sets (Attachment 4) currently populated in the NetDMR system.

Your assistance is greatly appreciated as Triad is committed to maintaining compliance with the MSGP requirements. If you have any questions, please contact Terrill Lemke (505) 665-2397 or Leslie Dale (505) 606-2371.

Very Truly Yours,

Enrique Torres
Division Leader
Environmental Protection & Compliance Division

ET/TWL/LJD:jdm

Attachment(s): Attachment 1 EPA Region 6 Approval for Triad National Security, LLC to Submit a Paper NOI; EPA Guidance to Submit Change NOI Information via EPA Form 3510-6
Attachment 2 EPA Region 6 Concurrence Regarding Temperature as a Non-Pollutant
Attachment 3 Change NOI for Stormwater Discharges Associated with Industrial Activity under the NPDES Multi-Sector General Permit
Attachment 4 NetDMR Monitoring Requirements for Los Alamos National Laboratory, Operated by Triad National Security, LLC, MSGP ID NMR050013

Copy: Nasim Jahan, EPA Region 6, jahan.nasim@epa.gov, (E-File)
Helen Nguyen, EPA Region 6, nguyen.helen@epa.gov, (E-File)
Sarah Holcomb, NMED/SWQB, sarah.holcomb@state.nm.us, (E-File)
Karen E. Armijo, NA-LA, karen.armijo@nnsa.doe.gov, (E-File)
Michael W. Hazen, ALDESHQSS, mhazen@lanl.gov, (E-File)
William R. Mairson, ALDESHQSS, wrmairson@lanl.gov, (E-File)
Timothy A. Dolan, GC-ESH, tdolan@lanl.gov, (E-File)
Taunia S. Van Valkenburg, EPC-CP, tauniav@lanl.gov, (E-File)
Terrill. W. Lemke, EPC-CP, tlemke@lanl.gov, (E-File)
Holly L. Wheeler, EPC-CP, hbenson@lanl.gov, (E-File)
Leslie J. Dale, EPC-CP, leslie@lanl.gov, (E-File)
adesh-records@lanl.gov, (E-File)
lasomailbox@nnsa.doe.gov, (E-file)
epccorrespondence@lanl.gov, (E-File)

Attachment 1

EPA Region 6 Approval for Triad National Security, LLC to Submit a Paper NOI; EPA Guidance to Submit Change NOI Information via EPA Form 3510-6

EPC-DO: 19-191

LA-UR-19-25199

Date: JUN 1 1 2019

Dale, Leslie J

From: Lemke, Terrill W
Sent: Wednesday, September 26, 2018 4:16 PM
To: Dolan, Timothy Aloysius; Dale, Leslie J; Wheeler, Holly Lynn
Subject: FW: Request for LANL Paper MSGP NOI Waiver

Follow Up Flag: Follow up
Flag Status: Flagged

FYI

Terrill Lemke, PE, CPESC, CISEC
Environmental Compliance Programs
Los Alamos National Laboratory
Los Alamos, NM
Office: 505-665-2397
Cell: 505-699-0725

From: Jahan, Nasim <Jahan.Nasim@epa.gov>
Sent: Wednesday, September 26, 2018 2:43 PM
To: Lemke, Terrill W <tlemke@lanl.gov>
Cc: Emily Gorman <emily@avanticorporation.com>
Subject: RE: Request for LANL Paper MSGP NOI Waiver

Dear Mr. Terrill:

EPA, Region 6 is approving your request for paper submission as the facility is unable to submit the NOI online.. Please mail the hardcopies to the following address:

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

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

Thank you,

Nasim Jahan

Environmental Engineer
Permits and Technical Section (6WQ-PP)
EPA Region 6 Water Quality Protection Division
1445 Ross Avenue, Ste. 1200
Dallas, TX 75202-2733
Phone: 214.665.7522
Fax: 214.665.2191

From: Lemke, Terrill W [mailto:tlemke@lanl.gov]
Sent: Wednesday, September 26, 2018 3:30 PM
To: Jahan, Nasim <Jahan.Nasim@epa.gov>
Cc: Dale, Leslie J <leslie@lanl.gov>; Dolan, Timothy Aloysius <tdolan@lanl.gov>
Subject: Request for LANL Paper MSGP NOI Waiver

Nasim,

Thank you for speaking with us today. We've had the opportunity to review the changes implemented in the updated NeT-MSGP system that rolled out earlier this year, and have identified the following issues as problematic for submitting an accurate and complete electronic NOI.

A new NOI must be submitted for Triad National Security, LLC (Triad) as a new operator for Los Alamos National Laboratory (LANL) pursuant to Part B.12.C of the 2015 MSGP. Triad is replacing Los Alamos National Security, LLC (LANS) as operator of LANL effective November 1, 2018. Per the schedule in Table 1-2 of the MSGP, Triad's NOI must be submitted by October 2, 2018.

EPA's Electronic Reporting Rule requires that NOIs be submitted using the NeT-MSGP program service on the EPA Central Data Exchange system. However, due to the following system limitations previously identified by LANS and coordinated by EPA Region 6 personnel, a complete and accurate NOI cannot be submitted using NeT-MSGP.

1. Part 9.6.2 of the 2015 MSGP, Permit Conditions for the State of New Mexico, requires that benchmark values be modified to reflect New Mexico water quality standards for facilities in New Mexico, based on benchmark values from the Standards for Interstate and Intrastate Surface Waters (20.6.4.900 New Mexico Administrative Code [NMAC]). These modified benchmark values are not recognized by NeT-MSGP and populated in NetDMR.
2. The 2018-2020 State of New Mexico Clean Water Act §303(d)/ §305(b) Integrated Report requires monitoring of impaired waters pollutants not available for selection in NeT-MSGP (e.g., Adjusted Gross Alpha and Temperature).
3. 20.6.4.900 NMAC requires monitoring of certain modified benchmark and impaired waters metals pollutants as dissolved species, which are not available for selection in NeT-MSGP. Currently, only total metals species may be assigned in NeT-MSGP.
4. Due to extended frozen conditions during the winter and a semi-arid climate, Triad will implement an alternative 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 alternate monitoring schedule does not coincide with the default four (4) three-month quarters listed in Part 6.1.7 of the 2015 MSGP and NeT-MSGP does not allow input of an alternate monitoring schedule. Accordingly, annual impaired waters and Effluent Limitation Guideline monitoring will be conducted between April 1 and November 30 of each year.

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

These system limitations directly result in inaccurate pollutants, limits, monitoring periods and DMR due dates being populated in NetDMR.

EPA Region 6 has recognized the challenges that the outgoing operator (LANS) has identified with NeT-MSGP related to compliance with Part 9.6.2 of the 2015 MSGP, Permit Conditions for the State of New Mexico, and has been instrumental in helping LANS to resolve these issues. Therefore, per your verbal direction, we are requesting a waiver for Triad to submit a paper NOI in lieu of submitting an inaccurate and incomplete NOI in NeT-MSGP. Please advise at your earliest convenience if you concur with our submittal of a paper NOI, as we must submit by Oct 2.

We appreciate your assistance in helping us maintain compliance. If you have any questions, please contact me at (505) 665-2397.

Terrill

Terrill Lemke, PE, CPESC, CISEC
Environmental Compliance Programs
Los Alamos National Laboratory
Los Alamos, NM
Office: 505-665-2397
Cell: 505-699-0725

From: Emily Hack (Avanti) (EPA NeT Support)
Cc: Jahan Nasim; Wheeler, Holly Lynn; Dale, Leslie J; Hazen, Michael W
Subject: NMR050013 - Triad National Security LLC - MSGP Notice of Intent
Date: Friday, October 26, 2018 11:13:07 AM
Attachments: NMR050013_Triad_Los Alamos National Laboratory_2015 MSGP NOI Acknowledgement.pdf
Triad National Security LLC_Los Alamos National Laboratory_10-02-2018.pdf

You are CC'ed on this support request (10066). Reply to this email to add a comment to the request.

Emily Hack (Avanti) (EPA NeT Support)

Good afternoon,

The paper Notice of Intent (NOI) submitted under EPA's Multi-Sector General Permit (MSGP) for Los Alamos National Laboratory under Triad National Security LLC has been processed by the EPA NPDES eReporting Help Desk. The facility was assigned NPDES ID NMR050013. Please, retain the attached acknowledgement letter for your records.

Due to the unique nature of the outfall sequence and monitoring requirements, EPA instructed that we enter the NOI directly into the back-end system. Therefore, the NOI will not be generated in the NeT MSGP program at this time. Attached is the NOI that we received. As I'm sure you are aware, for any changes to the NOI in the future, please submit them via paper as well.

Please, let me know if you have any questions.

Sincerely,

Emily Hack
NPDES eReporting Help Desk
Staffed by Avanti Corporation
1-877-227-8965
NPDESeReporting@epa.gov

Attachment 2

EPA Region 6 Concurrence Regarding Temperature as a Non-Pollutant

EPC-DO: 19-191

LA-UR-19-25199

Date: JUN 1 1 2019

Dale, Leslie J

From: Jahan, Nasim <Jahan.Nasim@epa.gov>
Sent: Wednesday, March 27, 2019 10:40 AM
To: Dale, Leslie J
Cc: Lemke, Terrill W; Dolan, Timothy Aloysius; Wheeler, Holly Lynn; Holcomb, Sarah, NMENV
Subject: RE: Temperature Monitoring for MSGP

Dear Leslie:

I concur your decision based on your reference. Please let me know if you have any other concerns..

Thank you,

Nasim..

From: Dale, Leslie J <leslie@lanl.gov>
Sent: Wednesday, March 27, 2019 11:16 AM
To: Jahan, Nasim <Jahan.Nasim@epa.gov>
Cc: Lemke, Terrill W <tlemke@lanl.gov>; Dolan, Timothy Aloysius <tdolan@lanl.gov>; Wheeler, Holly Lynn <hbenson@lanl.gov>; Holcomb, Sarah, NMENV <sarah.holcomb@state.nm.us>
Subject: Temperature Monitoring for MSGP

Good Morning Nasim,

We (Los Alamos National Laboratory, NMR0050013) have a question regarding whether temperature is considered a pollutant with respect to impaired waters monitoring under the MSGP. Part 6.2.4.1 of the MSGP, paragraph 2 states "**No monitoring is required** when a waterbody's biological communities are impaired but no pollutant, including indicator or surrogate pollutants, is specified as causing the impaired, or **when a waterbody's impairment is related to** hydrologic modifications, impaired hydrology, or **other non-pollutant.**"

For context, the 2018-2020 State of New Mexico CWA Section 303(d)/Section 305(b) Integrated Report listed temperature as an impairment to Sandia Canyon (Sigma Canyon to NPDES outfall 001, AU ID: NM-9000.A_047). Upon release of the revised Integrated Report, we included temperature as an impairment in our NOI submitted under Triad National Security, LLC (the new operator of Los Alamos National Laboratory) effective November 1, 2018.

We sought clarification from the New Mexico Environment Department – Surface Water Quality Bureau on March 25, 2019. Upon visiting the language in Part 6.2.4.1 of the MSGP, Sarah Holcomb provided guidance that temperature is a non-pollutant.

According to 40 CFR 122.2, Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)), **heat**, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean:
(a) Sewage from vessels; or
(b) Water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well used either to facilitate production or for

disposal purposes is approved by authority of the State in which the well is located, and if the State determines that the injection or disposal will not result in the degradation of ground or surface water resources.

We interpret "heat" to mean heat generated by MSGP industrial activities and not ambient temperature associated with stormwater runoff from MSGP facilities, and therefore believe that monitoring for temperature in stormwater as an impairment is not required.

Please let us know whether you concur, as we are preparing to modify our NOI to remove temperature from our monitoring requirements for the 2019 monitoring season.

Thank you,

Leslie Dale, CHMM
Environmental Compliance Programs (EPC-CP)
Los Alamos National Laboratory
PO Box 1663, MS K490
Los Alamos, NM 87545
(505) 606-2371

Attachment 3

Change NOI for Stormwater Discharges Associated with Industrial Activity under the NPDES Multi-Sector General Permit

EPC-DO: 19-191

LA-UR-19-25199

Date: JUN 1 1 2019

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: 09/26/2018 ***Note: This form is submitting Change NOI information. Modified items/sections are highlighted.***

* **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): NMR050013

1. Master Permit Number: (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:

C. Facility Operator Information

1. Operator Information:

Operator Name:

Mailing Address:

Street:

City: State: ZIP Code: -

County or Similar Government Subdivision:

Phone: - - Ext.

E-mail:

2. Operator Point of Contact Information:

First Name, Middle Initial, Last Name:

Title:

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

First Name, Middle Initial, Last Name:

Organization:

Phone: - - Ext.

E-mail:

D. Facility Information

1. Facility Name:

2. Facility Address:

Street/Location:

City: State: ZIP Code: -

County or Similar Government Subdivision:

3. Latitude/Longitude for the facility:

Latitude: ° N (decimal degrees) Longitude: ° 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: 51 (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: OR **Primary Activity Code:**

Sector: **Subsector:** ***Note: REMOVE the following Sector/Subsector from permit coverage.***

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

Sector: F **Subsector:** F4 **Sector:** **Subsector:** **Sector:** **Subsector:**

Sector: **Subsector:** **Sector:** **Subsector:** **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 (Sector AA, Subsector AA1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001) Remove monitored outfall 002 from permit coverage and NetDMR. Outfall was eliminated effective May 1, 2019.		**TMDL Name and ID:** N/A **Pollutant(s) for which there is a TMDL:** N/A
Latitude				
Longitude				
Outfall ID	005 (Sector O, Subsector O1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A **Pollutant(s) for which there is a TMDL:** N/A
Latitude				
Longitude				
If substantially identical to other outfall, list identical outfall ID: _____				

Outfall ID	006 (Sector O, Subsector O1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A **Pollutant(s) for which there is a TMDL:** N/A
Latitude				
Longitude				
If substantially identical to other outfall, list identical outfall ID: 005				
Outfall ID	009 (Sector O, Subsector O1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A **Pollutant(s) for which there is a TMDL:** N/A
Latitude				
Longitude				
If substantially identical to other outfall, list identical outfall ID:				
Outfall ID	007 (Sector O, Subsector O1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A **Pollutant(s) for which there is a TMDL:** N/A
Latitude				
Longitude				
If substantially identical to other outfall, list identical outfall ID: 009				
Outfall ID	008 (Sector O, Subsector O1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A **Pollutant(s) for which there is a TMDL:** N/A
Latitude				
Longitude				
If substantially identical to other outfall, list identical outfall ID: 009				

Outfall ID	010 (Sector O, Subsector O1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A **Pollutant(s) for which there is a TMDL:** N/A
Latitude				
Longitude				
If substantially identical to other outfall, list identical outfall ID: 009				
Outfall ID	012 (Sector O, Subsector O1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A **Pollutant(s) for which there is a TMDL:** N/A
Latitude				
Longitude				
If substantially identical to other outfall, list identical outfall ID:				
Outfall ID	011 (Sector O, Subsector O1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A **Pollutant(s) for which there is a TMDL:** N/A
Latitude				
Longitude				
If substantially identical to other outfall, list identical outfall ID: 012				
Outfall ID	017 (Sectors AA, F Subsectors AA1, F4)	Sandia Canyon (Sigma Canyon to NPDES outfall 001) Remove monitored outfall 017 from permit coverage and NetDMR. Site achieved No Exposure Status effective December 18, 2018.		**TMDL Name and ID:** N/A **Pollutant(s) for which there is a TMDL:** N/A
Latitude				
Longitude				
If substantially identical to other outfall, list identical outfall ID:				

Outfall ID	013 (Sectors AA, F Subsectors AA1, F4)	Mortandad Canyon (Within LANL)		**TMDL Name and ID:** N/A
Latitude		Remove SIO 013 from permit coverage. Site achieved No Exposure Status effective December 18, 2018.		**Pollutant(s) for which there is a TMDL:** N/A
Longitude				
If substantially identical to other outfall, list identical outfall ID: 017				
Outfall ID	014 (Sectors AA, F Subsectors AA1, F4)	Mortandad Canyon (Within LANL)		**TMDL Name and ID:** N/A
Latitude		Remove SIO 014 from permit coverage. Site achieved No Exposure Status effective December 18, 2018.		**Pollutant(s) for which there is a TMDL:** N/A
Longitude				
If substantially identical to other outfall, list identical outfall ID: 017				
Outfall ID	015 (Sectors AA, F Subsectors AA1, F4)	Mortandad Canyon (Within LANL)		**TMDL Name and ID:** N/A
Latitude		Remove SIO 015 from permit coverage. Site achieved No Exposure Status effective December 18, 2018.		**Pollutant(s) for which there is a TMDL:** N/A
Longitude				
If substantially identical to other outfall, list identical outfall ID: 017				
Outfall ID	016 (Sectors AA, F Subsectors AA1, F4)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)		**TMDL Name and ID:** N/A
Latitude		Remove SIO 016 from permit coverage. Site achieved No Exposure Status effective December 18, 2018.		**Pollutant(s) for which there is a TMDL:** N/A
Longitude				
If substantially identical to other outfall, list identical outfall ID: 017				

Outfall ID	019 (Sectors AA, F Subsectors AA1, F4)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)		**TMDL Name and ID:** N/A
Latitude		Remove SIO 019 from permit coverage. Site achieved No Exposure Status effective December 18, 2018.		**Pollutant(s) for which there is a TMDL:** N/A
Longitude				
If substantially identical to other outfall, list identical outfall ID: 017				
Outfall ID	020 (Sectors AA, F Subsectors AA1, F4)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)		**TMDL Name and ID:** N/A
Latitude		Remove monitored outfall 020 from permit coverage and NetDMR. Site achieved no Exposure Status effective December 18, 2018.		**Pollutant(s) for which there is a TMDL:** N/A
Longitude				
If substantially identical to other outfall, list identical outfall ID:				
Outfall ID	022 (Sectors AA, P, Subsectors AA1, P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A
Latitude		Add Sector AA, Subsector AA1 to permit coverage for monitored outfall 022.		**Pollutant(s) for which there is a TMDL:** N/A
Longitude				
If substantially identical to other outfall, list identical outfall ID:				
Outfall ID	021 (Sector AA, P, Subsector AA1, P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A
Latitude		Add Sector AA, Subsector AA1 to permit coverage for SIO 021.		**Pollutant(s) for which there is a TMDL:** N/A
Longitude				
If substantially identical to other outfall, list identical outfall ID: 022				

Outfall ID	023 (Sector AA, P, Subsector AA1, P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A
Latitude				**Pollutant(s) for which there is a TMDL:** N/A
Longitude		Add Sector AA, Subsector AA1 to permit coverage for SIO 023.		
If substantially identical to other outfall, list identical outfall ID: 022				
Outfall ID	024 (Sector AA, P, Subsector AA1, P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A
Latitude				**Pollutant(s) for which there is a TMDL:** N/A
Longitude		Add Sector AA, Subsector AA1 to permit coverage for SIO 024.		
If substantially identical to other outfall, list identical outfall ID: 022				
Outfall ID	025 (Sector AA, P, Subsector AA, P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A
Latitude				**Pollutant(s) for which there is a TMDL:** N/A
Longitude		Add Sector AA, Subsector AA1 to permit coverage for SIO 025.		
If substantially identical to other outfall, list identical outfall ID: 022				
Outfall ID	026 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A
Latitude				**Pollutant(s) for which there is a TMDL:** N/A
Longitude				
If substantially identical to other outfall, list identical outfall ID:				

Outfall ID	027 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	TMDL Name and ID: N/A
Latitude				Pollutant(s) for which there is a TMDL: N/A
Longitude				
If substantially identical to other outfall, list identical outfall ID: 026				
Outfall ID	028 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	TMDL Name and ID: N/A
Latitude				Pollutant(s) for which there is a TMDL: N/A
Longitude				
If substantially identical to other outfall, list identical outfall ID: 026				
Outfall ID	029 (Sector N, Subsector N2)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	TMDL Name and ID: N/A
Latitude				Pollutant(s) for which there is a TMDL: N/A
Longitude				
If substantially identical to other outfall, list identical outfall ID:				
Outfall ID	032 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	TMDL Name and ID: N/A
Latitude				Pollutant(s) for which there is a TMDL: N/A
Longitude				
If substantially identical to other outfall, list identical outfall ID:				

Outfall ID	033 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A
Latitude				**Pollutant(s) for which there is a TMDL:** N/A
Longitude				
If substantially identical to other outfall, list identical outfall ID: 032				
Outfall ID	034 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A
Latitude				**Pollutant(s) for which there is a TMDL:** N/A
Longitude				
If substantially identical to other outfall, list identical outfall ID: 032				
Outfall ID	035 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A
Latitude				**Pollutant(s) for which there is a TMDL:** N/A
Longitude				
If substantially identical to other outfall, list identical outfall ID: 032				
Outfall ID	036 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)		**TMDL Name and ID:** N/A
Latitude	35.867825	Remove monitored outfall 036 from permit coverage and NetDMR. Outfall was eliminated effective March 26, 2019.		**Pollutant(s) for which there is a TMDL:** N/A
Longitude	-106.293388			
If substantially identical to other outfall, list identical outfall ID:				

Outfall ID	037 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]	**TMDL Name and ID:** N/A
Latitude	35.867859			**Pollutant(s) for which there is a TMDL:** N/A
Longitude	-106.292992	Change outfall 037 from SIO to Monitored Outfall effective March 26, 2019.	Remove 00010 Temperature, water deg. centrigrade from list of impairments	
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID	039 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A
Latitude				**Pollutant(s) for which there is a TMDL:** N/A
Longitude				
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID	038 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)		**TMDL Name and ID:** N/A
Latitude				**Pollutant(s) for which there is a TMDL:** N/A
Longitude		Remove SIO 038 from permit coverage. Outfall was eliminated effective April 23, 2019.		
If substantially identical to other outfall, list identical outfall ID: 039				
Outfall ID	040 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)		**TMDL Name and ID:** N/A
Latitude				**Pollutant(s) for which there is a TMDL:** N/A
Longitude		Remove SIO 040 from permit coverage. Outfall was eliminated effective April 23, 2019.		
If substantially identical to other outfall, list identical outfall ID: 039				

Outfall ID	042 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A **Pollutant(s) for which there is a TMDL:** N/A
Latitude				
Longitude				
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID	041, Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A **Pollutant(s) for which there is a TMDL:** N/A
Latitude				
Longitude				
If substantially identical to other outfall, list identical outfall ID: 042				
Outfall ID	074 (Sector A, Subsector A4)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A **Pollutant(s) for which there is a TMDL:** N/A
Latitude				
Longitude				
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID	073 (Sector A, Subsector A4)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A **Pollutant(s) for which there is a TMDL:** N/A
Latitude				
Longitude				
If substantially identical to other outfall, list identical outfall ID: 074				

Outfall ID	075 (Sector P, Subsector P1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Remove 00010 Temperature, water deg. centrigrade from list of impairments	**TMDL Name and ID:** N/A
Latitude				**Pollutant(s) for which there is a TMDL:** N/A
Longitude				
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID	076 (Sector AA, Subsector A1)	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	01104 Aluminum, total recoverable [as Al]; 01040 Copper, dissolved [as Cu]; 39516 Polychlorinated biphenyls [PCBs]	**TMDL Name and ID:** N/A
Latitude	35.8758507	Add new monitored outfall 076 to permit coverage and NetDMR. Monitoring began June 1, 2019.		**Pollutant(s) for which there is a TMDL:** N/A
Longitude	-106.327924			
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID				**TMDL Name and ID:**
Latitude				**Pollutant(s) for which there is a TMDL:**
Longitude				
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID				**TMDL Name and ID:**
Latitude				**Pollutant(s) for which there is a TMDL:**
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 Municipal Separate Storm Sewer System (MS4)? ☐ YES ☐ NO

If yes, provide the name of the MS4 operator: _____

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)?

_____ (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: _____ _____

Professional Title: _____

Phone: ___-___-____ Ext. ____

E-mail: _____

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: _____

☐ **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):

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: _____

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: Enrique Torres

Title: Division Leader

Signature: _____ Date: 06/11/2019

E-mail: etorres@lanl.gov

Attachment 4

NetDMR Monitoring Requirements for Los Alamos National Laboratory, Operated by Triad National Security, LLC, MSGP ID NMR050013

EPC-DO: 19-191

LA-UR-19-25199

Date: JUN 1 1 2019

							ELG, Modified Benchmark, and Impaired Waters Limits per MSGP Section 9.6.2 and the NM Water Quality Standards (20.6.4.900 NMAC [New Mexico Administrative Code])										
Permit ID	Facility	Permitted Feature	Sector(s)	Subsector	Consolidated Discharge # (Limit Set)	Discharge Description	Parameter Code	Parameter Name	Symbol	Quality Value	Limit Type	Units	Freq. of Analysis	Smpl. Type	Monitoring Period Start Date	Monitoring Period End Date	DMR Due Date
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~002~~	~~AA~~	~~AA1~~	~~002-11~~	~~11- Fabricated Metal Products, except Coating~~	~~01104 1 0~~	~~Aluminum, total recoverable [as Al]~~	~~<=~~	~~1010~~	~~Maximum~~	~~ug/L~~	~~1/60~~	~~Gr~~	~~4/1/2019~~	~~5/31/2019~~	~~7/31/2019~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~002~~	~~AA~~	~~AA1~~	~~002-11~~	~~11- Fabricated Metal Products, except Coating~~	~~01045 1 0~~	~~Iron, total [as Fe]~~	~~<=~~	~~1000~~	~~Maximum~~	~~ug/L~~	~~1/60~~	~~Gr~~	~~4/1/2019~~	~~5/31/2019~~	~~7/31/2019~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~002~~	~~AA~~	~~AA1~~	~~002-11~~	~~11- Fabricated Metal Products, except Coating~~	~~51450 1 0~~	~~Nitrite Plus Nitrate Total~~	~~<=~~	~~0.68~~	~~Maximum~~	~~mg/L~~	~~1/60~~	~~Gr~~	~~4/1/2019~~	~~5/31/2019~~	~~7/31/2019~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~002~~	~~AA~~	~~AA1~~	~~002-11~~	~~11- Fabricated Metal Products, except Coating~~	~~01090 1 0~~	~~Zinc, dissolved [as Zn]~~	~~<=~~	~~99~~	~~Maximum~~	~~ug/L~~	~~1/60~~	~~Gr~~	~~4/1/2019~~	~~5/31/2019~~	~~7/31/2019~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~002~~	~~AA~~	~~AA1~~	~~002-11~~	~~11- Fabricated Metal Products, except Coating~~	~~01104 1 0~~	~~Aluminum, total recoverable [as Al]~~	~~<=~~	~~1010~~	~~Maximum~~	~~ug/L~~	~~1/60~~	~~Gr~~	~~6/1/2019~~	~~7/31/2019~~	~~9/30/2019~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~002~~	~~AA~~	~~AA1~~	~~002-11~~	~~11- Fabricated Metal Products, except Coating~~	~~01045 1 0~~	~~Iron, total [as Fe]~~	~~<=~~	~~1000~~	~~Maximum~~	~~ug/L~~	~~1/60~~	~~Gr~~	~~6/1/2019~~	~~7/31/2019~~	~~9/30/2019~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~002~~	~~AA~~	~~AA1~~	~~002-11~~	~~11- Fabricated Metal Products, except Coating~~	~~51450 1 0~~	~~Nitrite Plus Nitrate Total~~	~~<=~~	~~0.68~~	~~Maximum~~	~~mg/L~~	~~1/60~~	~~Gr~~	~~6/1/2019~~	~~7/31/2019~~	~~9/30/2019~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~002~~	~~AA~~	~~AA1~~	~~002-11~~	~~11- Fabricated Metal Products, except Coating~~	~~01090 1 0~~	~~Zinc, dissolved [as Zn]~~	~~<=~~	~~99~~	~~Maximum~~	~~ug/L~~	~~1/60~~	~~Gr~~	~~6/1/2019~~	~~7/31/2019~~	~~9/30/2019~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~002~~	~~AA~~	~~AA1~~	~~002-11~~	~~11- Fabricated Metal Products, except Coating~~	~~01104 1 0~~	~~Aluminum, total recoverable [as Al]~~	~~<=~~	~~1010~~	~~Maximum~~	~~ug/L~~	~~1/60~~	~~Gr~~	~~8/1/2019~~	~~9/30/2019~~	~~11/30/2019~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~002~~	~~AA~~	~~AA1~~	~~002-11~~	~~11- Fabricated Metal Products, except Coating~~	~~01045 1 0~~	~~Iron, total [as Fe]~~	~~<=~~	~~1000~~	~~Maximum~~	~~ug/L~~	~~1/60~~	~~Gr~~	~~8/1/2019~~	~~9/30/2019~~	~~11/30/2019~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~002~~	~~AA~~	~~AA1~~	~~002-11~~	~~11- Fabricated Metal Products, except Coating~~	~~51450 1 0~~	~~Nitrite Plus Nitrate Total~~	~~<=~~	~~0.68~~	~~Maximum~~	~~mg/L~~	~~1/60~~	~~Gr~~	~~8/1/2019~~	~~9/30/2019~~	~~11/30/2019~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~002~~	~~AA~~	~~AA1~~	~~002-11~~	~~11- Fabricated Metal Products, except Coating~~	~~01090 1 0~~	~~Zinc, dissolved [as Zn]~~	~~<=~~	~~99~~	~~Maximum~~	~~ug/L~~	~~1/60~~	~~Gr~~	~~8/1/2019~~	~~9/30/2019~~	~~11/30/2019~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~002~~	~~AA~~	~~AA1~~	~~002-11~~	~~11- Fabricated Metal Products, except Coating~~	~~01104 1 0~~	~~Aluminum, total recoverable [as Al]~~	~~<=~~	~~1010~~	~~Maximum~~	~~ug/L~~	~~1/60~~	~~Gr~~	~~10/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~002~~	~~AA~~	~~AA1~~	~~002-11~~	~~11- Fabricated Metal Products, except Coating~~	~~01045 1 0~~	~~Iron, total [as Fe]~~	~~<=~~	~~1000~~	~~Maximum~~	~~ug/L~~	~~1/60~~	~~Gr~~	~~10/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~002~~	~~AA~~	~~AA1~~	~~002-11~~	~~11- Fabricated Metal Products, except Coating~~	~~51450 1 0~~	~~Nitrite Plus Nitrate Total~~	~~<=~~	~~0.68~~	~~Maximum~~	~~mg/L~~	~~1/60~~	~~Gr~~	~~10/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~002~~	~~AA~~	~~AA1~~	~~002-11~~	~~11- Fabricated Metal Products, except Coating~~	~~01090 1 0~~	~~Zinc, dissolved [as Zn]~~	~~<=~~	~~99~~	~~Maximum~~	~~ug/L~~	~~1/60~~	~~Gr~~	~~10/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~002~~	~~AA~~	~~AA1~~	~~002-IW~~	~~IW - Impaired Water~~	~~01104 1 0~~	~~Aluminum, total recoverable [as Al]~~	~~<=~~	~~1010~~	~~Maximum~~	~~ug/L~~	~~1/YR~~	~~Gr~~	~~4/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~002~~	~~AA~~	~~AA1~~	~~002-IW~~	~~IW - Impaired Water~~	~~01040 1 0~~	~~Copper, dissolved [as Cu]~~	~~<=~~	~~7~~	~~Maximum~~	~~ug/L~~	~~1/YR~~	~~Gr~~	~~4/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~002~~	~~AA~~	~~AA1~~	~~002-IW~~	~~IW - Impaired Water~~	~~39516 1 0~~	~~Polychlorinated biphenyls [PCBs]~~	~~<=~~	~~0.2~~	~~Maximum~~	~~ug/L~~	~~1/YR~~	~~Gr~~	~~4/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~002~~	~~AA~~	~~AA1~~	~~002-IW~~	~~IW - Impaired Water~~	~~00010 1 0~~	~~Temperature, water deg. centigrade~~	~~<=~~	~~24~~	~~Maximum~~	~~deg C~~	~~1/YR~~	~~Gr~~	~~4/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
NMR050013	Los Alamos National Laboratory	005	O	O1	005-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
NMR050013	Los Alamos National Laboratory	005	O	O1	005-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
NMR050013	Los Alamos National Laboratory	005	O	O1	005-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
NMR050013	Los Alamos National Laboratory	005	O	O1	005-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	005	O	O1	005-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	005	O	O1	005-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	005	O	O1	005-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~005~~	~~O~~	~~O1~~	~~005-IW~~	~~IW - Impaired Water~~	~~00010 1 0~~	~~Temperature, water deg. centigrade~~	~~<=~~	~~24~~	~~Maximum~~	~~deg C~~	~~1/YR~~	~~Gr~~	~~4/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
NMR050013	Los Alamos National Laboratory	009	O	O1	009-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
NMR050013	Los Alamos National Laboratory	009	O	O1	009-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
NMR050013	Los Alamos National Laboratory	009	O	O1	009-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
NMR050013	Los Alamos National Laboratory	009	O	O1	009-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	009	O	O1	009-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	009	O	O1	009-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	009	O	O1	009-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~009~~	~~O~~	~~O1~~	~~009-IW~~	~~IW - Impaired Water~~	~~00010 1 0~~	~~Temperature, water deg. centigrade~~	~~<=~~	~~24~~	~~Maximum~~	~~deg C~~	~~1/YR~~	~~Gr~~	~~4/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
NMR050013	Los Alamos National Laboratory	012	O	O1	012-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
NMR050013	Los Alamos National Laboratory	012	O	O1	012-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
NMR050013	Los Alamos National Laboratory	012	O	O1	012-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
NMR050013	Los Alamos National Laboratory	012	O	O1	012-O1	O1 - Steam Electric Generating Facilities	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	012	O	O1	012-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	012	O	O1	012-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	012	O	O1	012-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~012~~	~~O~~	~~O1~~	~~012-IW~~	~~IW - Impaired Water~~	~~00010 1 0~~	~~Temperature, water deg. centigrade~~	~~<=~~	~~24~~	~~Maximum~~	~~deg C~~	~~1/YR~~	~~Gr~~	~~4/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~017~~	~~AA, F~~	~~AA1, F4~~	~~017-11~~	~~11- Fabricated Metal Products, except Coating~~	~~01104 1 0~~	~~Aluminum, total recoverable [as Al]~~	~~<=~~	~~1010~~	~~Maximum~~	~~ug/L~~	~~1/60~~	~~Gr~~	~~4/1/2019~~	~~5/31/2019~~	~~7/31/2019~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~017~~	~~AA, F~~	~~AA1, F4~~	~~017-11~~	~~11- Fabricated Metal Products, except Coating~~	~~01040 1 0~~	~~Copper, dissolved [as Cu]~~	~~<=~~	~~7~~	~~Maximum~~	~~ug/L~~	~~1/60~~	~~Gr~~	~~4/1/2019~~	~~5/31/2019~~	~~7/31/2019~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~017~~	~~AA, F~~	~~AA1, F4~~	~~017-11~~	~~11- Fabricated Metal Products, except Coating~~	~~01045 1 0~~	~~Iron, total [as Fe]~~	~~<=~~	~~1000~~	~~Maximum~~	~~ug/L~~	~~1/60~~	~~Gr~~	~~4/1/2019~~	~~5/31/2019~~	~~7/31/2019~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~017~~	~~AA, F~~	~~AA1, F4~~	~~017-11~~	~~11- Fabricated Metal Products, except Coating~~	~~51450 1 0~~	~~Nitrite Plus Nitrate Total~~	~~<=~~	~~0.68~~	~~Maximum~~	~~mg/L~~	~~1/60~~	~~Gr~~	~~4/1/2019~~	~~5/31/2019~~	~~7/31/2019~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~017~~	~~AA, F~~	~~AA1, F4~~	~~017-11~~	~~11- Fabricated Metal Products, except Coating~~	~~01090 1 0~~	~~Zinc, dissolved [as Zn]~~	~~<=~~	~~99~~	~~Maximum~~	~~ug/L~~	~~1/60~~	~~Gr~~	~~4/1/2019~~	~~5/31/2019~~	~~7/31/2019~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~017~~	~~AA, F~~	~~AA1, F4~~	~~017-11~~	~~11- Fabricated Metal Products, except Coating~~	~~01104 1 0~~	~~Aluminum, total recoverable [as Al]~~	~~<=~~	~~1010~~	~~Maximum~~	~~ug/L~~	~~1/60~~	~~Gr~~	~~6/1/2019~~	~~7/31/2019~~	~~9/30/2019~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~017~~	~~AA, F~~	~~AA1, F4~~	~~017-11~~	~~11- Fabricated Metal Products, except Coating~~	~~01040 1 0~~	~~Copper, dissolved [as Cu]~~	~~<=~~	~~7~~	~~Maximum~~	~~ug/L~~	~~1/60~~	~~Gr~~	~~6/1/2019~~	~~7/31/2019~~	~~9/30/2019~~

							ELG, Modified Benchmark, and Impaired Waters Limits per MSGP Section 9.6.2 and the NM Water Quality Standards (20.6.4.900 NMAC [New Mexico Administrative Code])										
Permit ID	Facility	Permitted Feature	Sector(s)	Subsector	Consolidated Discharge # (Limit Set)	Discharge Description	Parameter Code	Parameter Name	Symbol	Quality Value	Limit Type	Units	Freq. of Analysis	Smpl. Type	Monitoring Period Start Date	Monitoring Period End Date	DMR Due Date
NMR050013	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
NMR050013	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
NMR050013	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
NMR050013	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
NMR050013	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
NMR050013	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
NMR050013	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
NMR050013	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
NMR050013	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	017	AA, F	AA1, F4	017-IW	IW - Impaired Water	00010 1 0	Temperature, water deg. centigrade	<=	24	Maximum	deg C	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	020	AA, F	AA1, F4	020-IW	IW - Impaired Water	00010 1 0	Temperature, water deg. centigrade	<=	24	Maximum	deg C	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	022	AA	AA1	022-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
NMR050013	Los Alamos National Laboratory	022	AA	AA1	022-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
NMR050013	Los Alamos National Laboratory	022	AA	AA1	022-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
NMR050013	Los Alamos National Laboratory	022	AA	AA1	022-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
NMR050013	Los Alamos National Laboratory	022	AA	AA1	022-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
NMR050013	Los Alamos National Laboratory	022	AA	AA1	022-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
NMR050013	Los Alamos National Laboratory	022	AA	AA1	022-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
NMR050013	Los Alamos National Laboratory	022	AA	AA1	022-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
NMR050013	Los Alamos National Laboratory	022	AA	AA1	022-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
NMR050013	Los Alamos National Laboratory	022	AA	AA1	022-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
NMR050013	Los Alamos National Laboratory	022	AA	AA1	022-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
NMR050013	Los Alamos National Laboratory	022	AA	AA1	022-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019

							ELG, Modified Benchmark, and Impaired Waters Limits per MSGP Section 9.6.2 and the NM Water Quality Standards (20.6.4.900 NMAC [New Mexico Administrative Code])										
Permit ID	Facility	Permitted Feature	Sector(s)	Subsector	Consolidated Discharge # (Limit Set)	Discharge Description	Parameter Code	Parameter Name	Symbol	Quality Value	Limit Type	Units	Freq. of Analysis	Smpl. Type	Monitoring Period Start Date	Monitoring Period End Date	DMR Due Date
NMR050013	Los Alamos National Laboratory	022	AA	AA1	022-11	11- Fabricated Metal Products, except Coating	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	022	AA	AA1	022-11	11- Fabricated Metal Products, except Coating	01045 1 0	Iron, total [as Fe]	<=	1000	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	022	AA	AA1	022-11	11- Fabricated Metal Products, except Coating	51450 1 0	Nitrite Plus Nitrate Total	<=	0.68	Maximum	mg/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	022	AA	AA1	022-11	11- Fabricated Metal Products, except Coating	01090 1 0	Zinc, dissolved [as Zn]	<=	99	Maximum	ug/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	022	P	P1	022-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	022	P	P1	022-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	022	P	P1	022-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~022~~	~~P~~	~~P1~~	~~022-IW~~	~~IW - Impaired Water~~	~~00010 1 0~~	~~Temperature, water deg. centigrade~~	~~<=~~	~~24~~	~~Maximum~~	~~deg C~~	~~1/YR~~	~~Gr~~	~~4/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
NMR050013	Los Alamos National Laboratory	026	P	P1	026-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	026	P	P1	026-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	026	P	P1	026-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~026~~	~~P~~	~~P1~~	~~026-IW~~	~~IW - Impaired Water~~	~~00010 1 0~~	~~Temperature, water deg. centigrade~~	~~<=~~	~~24~~	~~Maximum~~	~~deg C~~	~~1/YR~~	~~Gr~~	~~4/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
NMR050013	Los Alamos National Laboratory	029	N	N2	029-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	029	N	N2	029-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	029	N	N2	029-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~029~~	~~N~~	~~N2~~	~~029-IW~~	~~IW - Impaired Water~~	~~00010 1 0~~	~~Temperature, water deg. centigrade~~	~~<=~~	~~24~~	~~Maximum~~	~~deg C~~	~~1/YR~~	~~Gr~~	~~4/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
NMR050013	Los Alamos National Laboratory	031	P	P1	031-IW	IW - Impaired Water	51931 1 0	Adjusted Gross Alpha	<=	15	Maximum	pCi/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	031	P	P1	031-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	11	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	031	P	P1	031-IW	IW - Impaired Water	71900 1 0	Mercury, total [as Hg]	<=	0.77	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	031	P	P1	031-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	032	P	P1	032-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	032	P	P1	032-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	032	P	P1	032-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~032~~	~~P~~	~~P1~~	~~032-IW~~	~~IW - Impaired Water~~	~~00010 1 0~~	~~Temperature, water deg. centigrade~~	~~<=~~	~~24~~	~~Maximum~~	~~deg C~~	~~1/YR~~	~~Gr~~	~~4/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~036~~	~~P~~	~~P1~~	~~036-IW~~	~~IW - Impaired Water~~	~~01104 1 0~~	~~Aluminum, total recoverable [as Al]~~	~~<=~~	~~1010~~	~~Maximum~~	~~ug/L~~	~~1/YR~~	~~Gr~~	~~4/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~036~~	~~P~~	~~P1~~	~~036-IW~~	~~IW - Impaired Water~~	~~01040 1 0~~	~~Copper, dissolved [as Cu]~~	~~<=~~	~~7~~	~~Maximum~~	~~ug/L~~	~~1/YR~~	~~Gr~~	~~4/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~036~~	~~P~~	~~P1~~	~~036-IW~~	~~IW - Impaired Water~~	~~39516 1 0~~	~~Polychlorinated biphenyls [PCBs]~~	~~<=~~	~~0.2~~	~~Maximum~~	~~ug/L~~	~~1/YR~~	~~Gr~~	~~4/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~036~~	~~P~~	~~P1~~	~~036-IW~~	~~IW - Impaired Water~~	~~00010 1 0~~	~~Temperature, water deg. centigrade~~	~~<=~~	~~24~~	~~Maximum~~	~~deg C~~	~~1/YR~~	~~Gr~~	~~4/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
NMR050013	**Los Alamos National Laboratory**	**037**	**P**	**P1**	**037-IW**	**IW - Impaired Water**	**01104 1 0**	**Aluminum, total recoverable [as Al]**	**<=**	**1010**	**Maximum**	**ug/L**	**1/YR**	**Gr**	**4/1/2019**	**11/30/2019**	**1/31/2020**
NMR050013	**Los Alamos National Laboratory**	**037**	**P**	**P1**	**037-IW**	**IW - Impaired Water**	**01040 1 0**	**Copper, dissolved [as Cu]**	**<=**	**7**	**Maximum**	**ug/L**	**1/YR**	**Gr**	**4/1/2019**	**11/30/2019**	**1/31/2020**
NMR050013	**Los Alamos National Laboratory**	**037**	**P**	**P1**	**037-IW**	**IW - Impaired Water**	**39516 1 0**	**Polychlorinated biphenyls [PCBs]**	**<=**	**0.2**	**Maximum**	**ug/L**	**1/YR**	**Gr**	**4/1/2019**	**11/30/2019**	**1/31/2020**
NMR050013	Los Alamos National Laboratory	039	P	P1	039-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	039	P	P1	039-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	039	P	P1	039-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~039~~	~~P~~	~~P1~~	~~039-IW~~	~~IW - Impaired Water~~	~~00010 1 0~~	~~Temperature, water deg. centigrade~~	~~<=~~	~~24~~	~~Maximum~~	~~deg C~~	~~1/YR~~	~~Gr~~	~~4/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
NMR050013	Los Alamos National Laboratory	042	P	P1	042-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	042	P	P1	042-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	042	P	P1	042-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~042~~	~~P~~	~~P1~~	~~042-IW~~	~~IW - Impaired Water~~	~~00010 1 0~~	~~Temperature, water deg. centigrade~~	~~<=~~	~~24~~	~~Maximum~~	~~deg C~~	~~1/YR~~	~~Gr~~	~~4/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
NMR050013	Los Alamos National Laboratory	043	D	D1	043-D1	D1 - Asphalt Paving and Roofing Materials and Lubricant Manufacturing	00530 1 0	Solids, total suspended	<=	100	Maximum	mg/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
NMR050013	Los Alamos National Laboratory	043	D	D1	043-D1	D1 - Asphalt Paving and Roofing Materials and Lubricant Manufacturing	00530 1 0	Solids, total suspended	<=	100	Maximum	mg/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
NMR050013	Los Alamos National Laboratory	043	D	D1	043-D1	D1 - Asphalt Paving and Roofing Materials and Lubricant Manufacturing	00530 1 0	Solids, total suspended	<=	100	Maximum	mg/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019

							ELG, Modified Benchmark, and Impaired Waters Limits per MSGP Section 9.6.2 and the NM Water Quality Standards (20.6.4.900 NMAC [New Mexico Administrative Code])										
Permit ID	Facility	Permitted Feature	Sector(s)	Subsector	Consolidated Discharge # (Limit Set)	Discharge Description	Parameter Code	Parameter Name	Symbol	Quality Value	Limit Type	Units	Freq. of Analysis	Smpl. Type	Monitoring Period Start Date	Monitoring Period End Date	DMR Due Date
NMR050013	Los Alamos National Laboratory	043	D	D1	043-D1	D1 - Asphalt Paving and Roofing Materials and Lubricant Manufacturing	00530 1 0	Solids, total suspended	<=	100	Maximum	mg/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	043	D	D1	043-1D	1D - Asphalt Paving and Roofing Materials and Lubricant Manufacturing	00556 1 0	Oil & Grease	<=	10	30-Day Average	mg/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	043	D	D1	043-1D	1D - Asphalt Paving and Roofing Materials and Lubricant Manufacturing	00556 1 0	Oil & Grease	<=	15	Daily Maximum	mg/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	043	D	D1	043-1D	1D - Asphalt Paving and Roofing Materials and Lubricant Manufacturing	00400 1 0	pH	>=	6	Minimum	SU	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	043	D	D1	043-1D	1D - Asphalt Paving and Roofing Materials and Lubricant Manufacturing	00400 1 0	pH	<=	9	Maximum	SU	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	043	D	D1	043-1D	1D - Asphalt Paving and Roofing Materials and Lubricant Manufacturing	00530 1 0	Solids, total suspended	<=	15	30-Day Average	mg/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	043	D	D1	043-1D	1D - Asphalt Paving and Roofing Materials and Lubricant Manufacturing	00530 1 0	Solids, total suspended	<=	23	Daily Maximum	mg/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	043	D	D1	043-IW	IW - Impaired Water	51931 1 0	Adjusted Gross Alpha	<=	15	Maximum	pCi/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	043	D	D1	043-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	11	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	043	D	D1	043-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	043	D	D1	043-IW	IW - Impaired Water	71900 1 0	Mercury, total [as Hg]	<=	0.77	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	074	A	A4	074-A4	A4 - Hardwood Dimension and Flooring Mills	81017 1 0	Chemical Oxygen Demand [COD]	<=	120	Maximum	mg/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
NMR050013	Los Alamos National Laboratory	074	A	A4	074-A4	A4 - Hardwood Dimension and Flooring Mills	00530 1 0	Solids, total suspended	<=	100	Maximum	mg/L	1/60	Gr	4/1/2019	5/31/2019	7/31/2019
NMR050013	Los Alamos National Laboratory	074	A	A4	074-A4	A4 - Hardwood Dimension and Flooring Mills	81017 1 0	Chemical Oxygen Demand [COD]	<=	120	Maximum	mg/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
NMR050013	Los Alamos National Laboratory	074	A	A4	074-A4	A4 - Hardwood Dimension and Flooring Mills	00530 1 0	Solids, total suspended	<=	100	Maximum	mg/L	1/60	Gr	6/1/2019	7/31/2019	9/30/2019
NMR050013	Los Alamos National Laboratory	074	A	A4	074-A4	A4 - Hardwood Dimension and Flooring Mills	81017 1 0	Chemical Oxygen Demand [COD]	<=	120	Maximum	mg/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
NMR050013	Los Alamos National Laboratory	074	A	A4	074-A4	A4 - Hardwood Dimension and Flooring Mills	00530 1 0	Solids, total suspended	<=	100	Maximum	mg/L	1/60	Gr	8/1/2019	9/30/2019	11/30/2019
NMR050013	Los Alamos National Laboratory	074	A	A4	074-A4	A4 - Hardwood Dimension and Flooring Mills	81017 1 0	Chemical Oxygen Demand [COD]	<=	120	Maximum	mg/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	074	A	A4	074-A4	A4 - Hardwood Dimension and Flooring Mills	00530 1 0	Solids, total suspended	<=	100	Maximum	mg/L	1/60	Gr	10/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	074	A	A4	074-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	074	A	A4	074-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~074~~	~~A~~	~~A4~~	~~074-IW~~	~~IW - Impaired Water~~	~~00010 1 0~~	~~Temperature, water deg. centigrade~~	~~<=~~	~~24~~	~~Maximum~~	~~deg C~~	~~1/YR~~	~~Gr~~	~~4/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
NMR050013	Los Alamos National Laboratory	075	P	P1	075-IW	IW - Impaired Water	01104 1 0	Aluminum, total recoverable [as Al]	<=	1010	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	075	P	P1	075-IW	IW - Impaired Water	01040 1 0	Copper, dissolved [as Cu]	<=	7	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
NMR050013	Los Alamos National Laboratory	075	P	P1	075-IW	IW - Impaired Water	39516 1 0	Polychlorinated biphenyls [PCBs]	<=	0.2	Maximum	ug/L	1/YR	Gr	4/1/2019	11/30/2019	1/31/2020
~~NMR050013~~	~~Los Alamos National Laboratory~~	~~075~~	~~P~~	~~P1~~	~~075-IW~~	~~IW - Impaired Water~~	~~00010 1 0~~	~~Temperature, water deg. centigrade~~	~~<=~~	~~24~~	~~Maximum~~	~~deg C~~	~~1/YR~~	~~Gr~~	~~4/1/2019~~	~~11/30/2019~~	~~1/31/2020~~
NMR050013	**Los Alamos National Laboratory**	**076**	**AA**	**AA1**	**076-11**	**11- Fabricated Metal Products, except Coating**	**01104 1 0**	**Aluminum, total recoverable [as Al]**	**<=**	**1010**	**Maximum**	**ug/L**	**1/60**	**Gr**	**4/1/2020**	**5/31/2020**	**7/31/2020**
NMR050013	**Los Alamos National Laboratory**	**076**	**AA**	**AA1**	**076-11**	**11- Fabricated Metal Products, except Coating**	**01045 1 0**	**Iron, total [as Fe]**	**<=**	**1000**	**Maximum**	**ug/L**	**1/60**	**Gr**	**4/1/2020**	**5/31/2020**	**7/31/2020**
NMR050013	**Los Alamos National Laboratory**	**076**	**AA**	**AA1**	**076-11**	**11- Fabricated Metal Products, except Coating**	**51450 1 0**	**Nitrite Plus Nitrate Total**	**<=**	**0.68**	**Maximum**	**mg/L**	**1/60**	**Gr**	**4/1/2020**	**5/31/2020**	**7/31/2020**
NMR050013	**Los Alamos National Laboratory**	**076**	**AA**	**AA1**	**076-11**	**11- Fabricated Metal Products, except Coating**	**01090 1 0**	**Zinc, dissolved [as Zn]**	**<=**	**99**	**Maximum**	**ug/L**	**1/60**	**Gr**	**4/1/2020**	**5/31/2020**	**7/31/2020**
NMR050013	**Los Alamos National Laboratory**	**076**	**AA**	**AA1**	**076-11**	**11- Fabricated Metal Products, except Coating**	**01104 1 0**	**Aluminum, total recoverable [as Al]**	**<=**	**1010**	**Maximum**	**ug/L**	**1/60**	**Gr**	**6/1/2019**	**7/31/2019**	**9/30/2019**
NMR050013	**Los Alamos National Laboratory**	**076**	**AA**	**AA1**	**076-11**	**11- Fabricated Metal Products, except Coating**	**01045 1 0**	**Iron, total [as Fe]**	**<=**	**1000**	**Maximum**	**ug/L**	**1/60**	**Gr**	**6/1/2019**	**7/31/2019**	**9/30/2019**
NMR050013	**Los Alamos National Laboratory**	**076**	**AA**	**AA1**	**076-11**	**11- Fabricated Metal Products, except Coating**	**51450 1 0**	**Nitrite Plus Nitrate Total**	**<=**	**0.68**	**Maximum**	**mg/L**	**1/60**	**Gr**	**6/1/2019**	**7/31/2019**	**9/30/2019**
NMR050013	**Los Alamos National Laboratory**	**076**	**AA**	**AA1**	**076-11**	**11- Fabricated Metal Products, except Coating**	**01090 1 0**	**Zinc, dissolved [as Zn]**	**<=**	**99**	**Maximum**	**ug/L**	**1/60**	**Gr**	**6/1/2019**	**7/31/2019**	**9/30/2019**
NMR050013	**Los Alamos National Laboratory**	**076**	**AA**	**AA1**	**076-11**	**11- Fabricated Metal Products, except Coating**	**01104 1 0**	**Aluminum, total recoverable [as Al]**	**<=**	**1010**	**Maximum**	**ug/L**	**1/60**	**Gr**	**8/1/2019**	**9/30/2019**	**11/30/2019**
NMR050013	**Los Alamos National Laboratory**	**076**	**AA**	**AA1**	**076-11**	**11- Fabricated Metal Products, except Coating**	**01045 1 0**	**Iron, total [as Fe]**	**<=**	**1000**	**Maximum**	**ug/L**	**1/60**	**Gr**	**8/1/2019**	**9/30/2019**	**11/30/2019**
NMR050013	**Los Alamos National Laboratory**	**076**	**AA**	**AA1**	**076-11**	**11- Fabricated Metal Products, except Coating**	**51450 1 0**	**Nitrite Plus Nitrate Total**	**<=**	**0.68**	**Maximum**	**mg/L**	**1/60**	**Gr**	**8/1/2019**	**9/30/2019**	**11/30/2019**
NMR050013	**Los Alamos National Laboratory**	**076**	**AA**	**AA1**	**076-11**	**11- Fabricated Metal Products, except Coating**	**01090 1 0**	**Zinc, dissolved [as Zn]**	**<=**	**99**	**Maximum**	**ug/L**	**1/60**	**Gr**	**8/1/2019**	**9/30/2019**	**11/30/2019**
NMR050013	**Los Alamos National Laboratory**	**076**	**AA**	**AA1**	**076-11**	**11- Fabricated Metal Products, except Coating**	**01104 1 0**	**Aluminum, total recoverable [as Al]**	**<=**	**1010**	**Maximum**	**ug/L**	**1/60**	**Gr**	**10/1/2019**	**11/30/2019**	**1/31/2020**
NMR050013	**Los Alamos National Laboratory**	**076**	**AA**	**AA1**	**076-11**	**11- Fabricated Metal Products, except Coating**	**01045 1 0**	**Iron, total [as Fe]**	**<=**	**1000**	**Maximum**	**ug/L**	**1/60**	**Gr**	**10/1/2019**	**11/30/2019**	**1/31/2020**
NMR050013	**Los Alamos National Laboratory**	**076**	**AA**	**AA1**	**076-11**	**11- Fabricated Metal Products, except Coating**	**51450 1 0**	**Nitrite Plus Nitrate Total**	**<=**	**0.68**	**Maximum**	**mg/L**	**1/60**	**Gr**	**10/1/2019**	**11/30/2019**	**1/31/2020**
NMR050013	**Los Alamos National Laboratory**	**076**	**AA**	**AA1**	**076-11**	**11- Fabricated Metal Products, except Coating**	**01090 1 0**	**Zinc, dissolved [as Zn]**	**<=**	**99**	**Maximum**	**ug/L**	**1/60**	**Gr**	**10/1/2019**	**11/30/2019**	**1/31/2020**
NMR050013	**Los Alamos National Laboratory**	**076**	**AA**	**AA1**	**076-IW**	**IW - Impaired Water**	**01104 1 0**	**Aluminum, total recoverable [as Al]**	**<=**	**1010**	**Maximum**	**ug/L**	**1/YR**	**Gr**	**4/1/2019**	**11/30/2019**	**1/31/2020**
NMR050013	**Los Alamos National Laboratory**	**076**	**AA**	**AA1**	**076-IW**	**IW - Impaired Water**	**01040 1 0**	**Copper, dissolved [as Cu]**	**<=**	**7**	**Maximum**	**ug/L**	**1/YR**	**Gr**	**4/1/2019**	**11/30/2019**	**1/31/2020**

							ELG, Modified Benchmark, and Impaired Waters Limits per MSGP Section 9.6.2 and the NM Water Quality Standards (20.6.4.900 NMAC [New Mexico Administrative Code])										
Permit ID	**Facility**	**Permitted Feature**	**Sector(s)**	**Subsector**	**Consolidated Discharge # (Limit Set)**	**Discharge Description**	**Parameter Code**	**Parameter Name**	**Symbol**	**Quality Value**	**Limit Type**	**Units**	**Freq. of Analysis**	**Smpl. Type**	**Monitoring Period Start Date**	**Monitoring Period End Date**	**DMR Due Date**
NMR050013	**Los Alamos National Laboratory**	**076**	**AA**	**AA1**	**076-IW**	**IW - Impaired Water**	**39516 1 0**	**Polychlorinated biphenyls [PCBs]**	**<=**	**0.2**	**Maximum**	**ug/L**	**1/YR**	**Gr**	**4/1/2019**	**11/30/2019**	**1/31/2020**
Additions to NOI and NetDMR are in **BOLD**.																	
Deletions from NOI and NetDMR are indicated by ~~strikethrough.~~																	
Regular text indicates no change to NOI or NetDMR.																	

Attachment 2: **SWPPP AMENDMENTS**

Date	**Plan Section**	**Reason for Amendment**	**Amendment**
Jan 2019	All	New MSGP Plan for new Laboratory Contract.	New MSGP Plan for Triad, LLC (replacing LANS, LLC.
Feb 2020	All	Implementation of the new SWPPP template as required by EPC-CP-QP-2110, *MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance.* Also included all inspections, assessments and reports required for the yearly update.	Inserted new template language to standardize all MSGP SWPPPs and inserted all required documentation for the yearly revision.

Attachment 3: **CERTIFICATION OF NO UNAUTHORIZED STORMWATER DISCHARGES**

Unauthorized Non-Storm Water Discharge Assessment and Certification

Facility:	TA-60-01 Heavy Equipment Shop		
Outfalls (including SIOs*) or Other Onsite Drainage Points Observed During the Assessment	**Identified Potential Sources of Unauthorized Non-Storm Water Discharge (if applicable)**	**Description of Assessment Criterion Used**	**Describe any Required Actions to Control or Eliminate the Discharge**
022 (021, 023, 024, 025)	None	Visual Inspection	N/A

Assessor:

Print Name:	Signature:	Title:	Date Assessed:
Jillian E. Burgin	Jillian Burgin	DEP, CISEC	12/19/18

Authorized Signatory: 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.

Print Name:	Signature:	Title:	Date Certified:
Russell Stone	Russell Stone	ESH Mgr & DESH-UCS	1/25/2019

*SIO = Substantially Identical Outfall

Attachment 4: **DULY AUTHORIZED SIGNATORY MEMORANDUM**

Los Alamos
NATIONAL LABORATORY
EST. 1943

Environmental Protection & Compliance Division
Los Alamos National Laboratory
PO Box 1663, K490
Los Alamos, NM 87545
505-667-0666

Symbol: EPC-DO: 18-453
LAUR: 18-31574
Date: DEC 1 1 2018

Ms. Anne L. Idsal, Regional Administrator
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Mail Code: 6RA
Dallas, TX 75202-2733

Subject: Notification of Triad National Security, LLC, Signatory Officials and Authorized Representatives for NPDES Permits

Dear Ms. Idsal:

The purpose of this letter is to provide an update to the U. S. Environmental Protection Agency (EPA) Region 6 on the Triad National Security, LLC delegation of authority for signature of documents associated with the various Los Alamos National Laboratory (LANL) NPDES Permits, pursuant to 40 CFR 122.22(c). This letter supersedes and replaces the signatory authority letter dated March 14, 2018 (ADESH: 18-017).

The positions of Associate Laboratory Director of Environment, Safety, Health & Quality and Safeguards & Security (ESHQSS), and Division Leader of the Environmental Protection & Compliance Division (EPC-DO) are identified as Triad'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 NPDES Industrial Point Source Outfall Permit (Permit No. NM0028355), the NPDES Storm Water Construction General Permit, the NPDES Multi-Sector General Permit (Permit No. NMR050013), and the NPDES Pesticide General Permit (Permit No. NMG87B113).

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 or Team Leaders within the Environmental Compliance Programs Group.
- Responsible Facility Operations Director (FOD).

NPDES Construction General Permit:

- Positions listed as primary signatory officials above.
- Group Leader or Team Leaders within the Environmental Compliance Programs Group.
- Cognizant Project Manager, Construction Manager, or Subcontractor Technical Representative for the regulated construction activity.

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

- Positions listed as primary signatory officials above.
- Group Leader or Team Leaders within 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 or Team Leaders within the Environmental Compliance Programs Group.

If you have questions, please contact me at (505) 667-7269 or at etorres@lanl.gov.

Sincerely,

Enrique Torres
Division Leader
Environmental Protection & Compliance Division

ET/TWL/MTS:jdm

Attachment(s): None.

Copy: Nancy Williams, USEPA, Region 6, williams.nancy@epa.gov, (E-File)
Brent E. Larsen, USEPA, Region 6, Larsen.brent@epa.gov, (E-File)
Robert Houston, USEPA, Region 6, Houston.robert@epa.gov, (E-File)
Sarah Holcomb, NMED, sarah.holcomb@state.nm.us, (E-File)
Karen E. Armijo, LASO-MA-LS, Karen.armijo@nnsa.doe.gov, (E-File)
Jody Pugh, NA-LA, jody.pugh@nnsa.doe.gov, (E-File)
Michael W. Hazen, ESHQSS, mhazen@lanl.gov, (E-File)
William R. Mairson, ESHQSS, wrmairson@lanl.gov, (E-File)
Enrique Torres, EPC-DO, etorres@lanl.gov, (E-File)
Taunia Van Valkenburg, EPC-CP, tauniav@lanl.gov, (E-File)
Michael T. Saladen, EPC-CP, saladen@lanl.gov, (E-File)
Terrill W. Lemke, EPC-CP, tlemke@lanl.gov, (E-File)
Tim Dolan, GC-ESH, tdolan@lanl.gov, (E-File)
emla.docs@em.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)
adesh-records@lanl.gov, (E-File)

Attachment 5: **DISCHARGE MONITORING REPORTS**

DMR Copy of Record

Permit

Permit #:	**NMR050013**	**Permittee:**	TRIAD NATIONAL SECURITY LLC	**Facility:**	LOS ALAMOS NATIONAL LABORATORY
Major:	No	**Permittee Address:**	PO BOX 1663 MS K490 LOS ALAMOS, NM 87545	**Facility Location:**	PO BOX 1663 LOS ALAMOS, NM 87545
Permitted Feature:	022 External Outfall	**Discharge:**	**022-11** Fabricated Metal Products, except Coating		

Report Dates & Status

Monitoring Period:	**From 04/01/19 to 05/31/19**	**DMR Due Date:**	**07/31/19**	**Status:**	**NetDMR Validated**

Considerations for Form Completion

Principal Executive Officer

First Name:		**Title:**		**Telephone:**	
Last Name:					

No Data Indicator (NODI)

Form NODI: --

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration							# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
X 01045	Iron, total [as Fe]	1 - Effluent Gross	0	--	Sample											1300	28 - ug/L		01/60 - Once Every 2 Months	GR - GRAB
					Permit Req.										<=	1000 MAXIMUM	28 - ug/L	1	01/60 - Once Every 2 Months	GR - GRAB
					Value NODI															
X 01090	Zinc, dissolved [as Zn]	1 - Effluent Gross	0	--	Sample											657	28 - ug/L		01/60 - Once Every 2 Months	GR - GRAB
					Permit Req.										<=	99 MAXIMUM	28 - ug/L	1	01/60 - Once Every 2 Months	GR - GRAB
					Value NODI															
X 01104	Aluminum, total recoverable	1 - Effluent Gross	0	--	Sample											14900	28 - ug/L		01/60 - Once Every 2 Months	GR - GRAB
					Permit Req.										<=	1010 MAXIMUM	28 - ug/L	1	01/60 - Once Every 2 Months	GR - GRAB
					Value NODI															
X 51450	Nitrite Plus Nitrate Total	1 - Effluent Gross	0	--	Sample											1.48	19 - mg/L		01/60 - Once Every 2 Months	GR - GRAB
					Permit Req.										<=	.68 MAXIMUM	19 - mg/L	1	01/60 - Once Every 2 Months	GR - GRAB
					Value NODI															

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

Parameter		Monitoring Location	Field	Type	Description	Acknowledge
Code	Name					
01045	Iron, total [as Fe]	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
01090	Zinc, dissolved [as Zn]	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
51450	Nitrite Plus Nitrate Total	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
01104	Aluminum, total recoverable	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes

Comments

LA-UR-19-26304. The average concentrations of Zn and Al are mathematically certain to exceed the benchmark value.

Attachments

No attachments.

Report Last Saved By

TRIAD NATIONAL SECURITY LLC

User:	leslie@lanl.gov
Name:	Leslie Dale
E-Mail:	leslie@lanl.gov
Date/Time:	2019-07-09 10:30 (Time Zone: -05:00)

Report Last Signed By

User:	TERRILLLEMKE
Name:	Terrill Lemke
E-Mail:	tlemke@lanl.gov
Date/Time:	2019-07-09 13:07 (Time Zone: -05:00)

DMR Copy of Record

Permit

Permit #:	**NMR050013**	**Permittee:**	TRIAD NATIONAL SECURITY LLC	**Facility:**	LOS ALAMOS NATIONAL LABORATORY
Major:	No	**Permittee Address:**	PO BOX 1663 MS K490 LOS ALAMOS, NM 87545	**Facility Location:**	PO BOX 1663 LOS ALAMOS, NM 87545
Permitted Feature:	022 External Outfall	**Discharge:**	**022-11** Fabricated Metal Products, except Coating		

Report Dates & Status

Monitoring Period:	**From 06/01/19 to 07/31/19**	**DMR Due Date:**	**09/30/19**	**Status:**	**NetDMR Validated**

Considerations for Form Completion

Principal Executive Officer

First Name:		**Title:**		**Telephone:**	
Last Name:					

No Data Indicator (NODI)

Form NODI: --

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration							# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
X 01045	Iron, total [as Fe]	1 - Effluent Gross	0	--	Sample											8520	28 - ug/L		01/60 - Once Every 2 Months	GR - GRAB
					Permit Req.										<=	1000 MAXIMUM	28 - ug/L	1	01/60 - Once Every 2 Months	GR - GRAB
					Value NODI															
01090	Zinc, dissolved [as Zn]	1 - Effluent Gross	0	--	Sample											82.6	28 - ug/L		01/60 - Once Every 2 Months	GR - GRAB
					Permit Req.										<=	99 MAXIMUM	28 - ug/L	0	01/60 - Once Every 2 Months	GR - GRAB
					Value NODI															
X 01104	Aluminum, total recoverable	1 - Effluent Gross	0	--	Sample											1430	28 - ug/L		01/60 - Once Every 2 Months	GR - GRAB
					Permit Req.										<=	1010 MAXIMUM	28 - ug/L	1	01/60 - Once Every 2 Months	GR - GRAB
					Value NODI															
X 51450	Nitrite Plus Nitrate Total	1 - Effluent Gross	0	--	Sample											0.742	19 - mg/L		01/60 - Once Every 2 Months	GR - GRAB
					Permit Req.										<=	.68 MAXIMUM	19 - mg/L	1	01/60 - Once Every 2 Months	GR - GRAB
					Value NODI															

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

Parameter		Monitoring Location	Field	Type	Description	Acknowledge
Code	Name					
51450	Nitrite Plus Nitrate Total	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
01045	Iron, total [as Fe]	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
01104	Aluminum, total recoverable	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes

Comments

LA-UR-19-29666. The average concentration of Fe is mathematically certain to exceed the benchmark.

Attachments

No attachments.

Report Last Saved By

TRIAD NATIONAL SECURITY LLC

User:	leslie@lanl.gov
Name:	Leslie Dale
E-Mail:	leslie@lanl.gov
Date/Time:	2019-09-25 14:40 (Time Zone: -05:00)

Report Last Signed By

User:	TERRILLLEMKE
Name:	Terrill Lemke
E-Mail:	tlemke@lanl.gov
Date/Time:	2019-09-25 17:35 (Time Zone: -05:00)

DMR Copy of Record

Permit

Permit #:	**NMR050013**	**Permittee:**	TRIAD NATIONAL SECURITY LLC	**Facility:**	LOS ALAMOS NATIONAL LABORATORY
Major:	No	**Permittee Address:**	PO BOX 1663 MS K490 LOS ALAMOS, NM 87545	**Facility Location:**	PO BOX 1663 LOS ALAMOS, NM 87545
Permitted Feature:	022 External Outfall	**Discharge:**	**022-11** Fabricated Metal Products, except Coating		

Report Dates & Status

Monitoring Period:	**From 08/01/19 to 09/30/19**	**DMR Due Date:**	**11/30/19**	**Status:**	**NetDMR Validated**

Considerations for Form Completion

Principal Executive Officer

First Name:	**Title:**	**Telephone:**
Last Name:		

No Data Indicator (NODI)

Form NODI: --

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration							# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
X 01045	Iron, total [as Fe]	1 - Effluent Gross	0	--	Sample											1080	28 - ug/L		01/60 - Once Every 2 Months	GR - GRAB
					Permit Req.										<=	1000 MAXIMUM	28 - ug/L	1	01/60 - Once Every 2 Months	GR - GRAB
					Value NODI															
X 01090	Zinc, dissolved [as Zn]	1 - Effluent Gross	0	--	Sample											113	28 - ug/L		01/60 - Once Every 2 Months	GR - GRAB
					Permit Req.										<=	99 MAXIMUM	28 - ug/L	1	01/60 - Once Every 2 Months	GR - GRAB
					Value NODI															
X 01104	Aluminum, total recoverable	1 - Effluent Gross	0	--	Sample											1500	28 - ug/L		01/60 - Once Every 2 Months	GR - GRAB
					Permit Req.										<=	1010 MAXIMUM	28 - ug/L	1	01/60 - Once Every 2 Months	GR - GRAB
					Value NODI															
X 51450	Nitrite Plus Nitrate Total	1 - Effluent Gross	0	--	Sample											1.17	19 - mg/L		01/60 - Once Every 2 Months	GR - GRAB
					Permit Req.										<=	.68 MAXIMUM	19 - mg/L	1	01/60 - Once Every 2 Months	GR - GRAB
					Value NODI															

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

Parameter		Monitoring Location	Field	Type	Description	Acknowledge
Code	Name					
01045	Iron, total [as Fe]	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
01090	Zinc, dissolved [as Zn]	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
51450	Nitrite Plus Nitrate Total	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
01104	Aluminum, total recoverable	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes

Comments

LA-UR-19-30860. The concentration of Nitrate plus Nitrite Nitrogen is mathematically certain to exceed the benchmark.

Attachments

No attachments.

Report Last Saved By

TRIAD NATIONAL SECURITY LLC

User:	leslie@lanl.gov
Name:	Leslie Dale
E-Mail:	leslie@lanl.gov
Date/Time:	2019-10-25 09:10 (Time Zone: -05:00)

Report Last Signed By

User:	TERRILLLEMKE
Name:	Terrill Lemke
E-Mail:	tlemke@lanl.gov
Date/Time:	2019-10-25 09:32 (Time Zone: -05:00)

DMR Copy of Record

Permit

Permit #:	**NMR050013**	**Permittee:**	TRIAD NATIONAL SECURITY LLC	**Facility:**	LOS ALAMOS NATIONAL LABORATORY
Major:	No	**Permittee Address:**	PO BOX 1663 MS K490 LOS ALAMOS, NM 87545	**Facility Location:**	PO BOX 1663 LOS ALAMOS, NM 87545
Permitted Feature:	022 External Outfall	**Discharge:**	**022-11** Fabricated Metal Products, except Coating		

Report Dates & Status

Monitoring Period:	**From 10/01/19 to 11/30/19**	**DMR Due Date:**	**01/31/20**	**Status:**	**NetDMR Validated**

Considerations for Form Completion

Principal Executive Officer

First Name:		**Title:**		**Telephone:**	
Last Name:					

No Data Indicator (NODI)

Form NODI: --

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration							# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
X 01045	Iron, total [as Fe]	1 - Effluent Gross	0	--	Sample											1100	28 - ug/L		01/60 - Once Every 2 Months	GR - GRAB
					Permit Req.										<=	1000 MAXIMUM	28 - ug/L	1	01/60 - Once Every 2 Months	GR - GRAB
					Value NODI															
X 01090	Zinc, dissolved [as Zn]	1 - Effluent Gross	0	--	Sample											148	28 - ug/L		01/60 - Once Every 2 Months	GR - GRAB
					Permit Req.										<=	99 MAXIMUM	28 - ug/L	1	01/60 - Once Every 2 Months	GR - GRAB
					Value NODI															
X 01104	Aluminum, total recoverable	1 - Effluent Gross	0	--	Sample											1860	28 - ug/L		01/60 - Once Every 2 Months	GR - GRAB
					Permit Req.										<=	1010 MAXIMUM	28 - ug/L	1	01/60 - Once Every 2 Months	GR - GRAB
					Value NODI															
51450	Nitrite Plus Nitrate Total	1 - Effluent Gross	0	--	Sample											0.642	19 - mg/L		01/60 - Once Every 2 Months	GR - GRAB
					Permit Req.										<=	.68 MAXIMUM	19 - mg/L	0	01/60 - Once Every 2 Months	GR - GRAB
					Value NODI															

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

Parameter		Monitoring Location	Field	Type	Description	Acknowledge
Code	Name					
01045	Iron, total [as Fe]	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
01104	Aluminum, total recoverable	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
01090	Zinc, dissolved [as Zn]	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes

Comments

LA-UR-19-32649. The average concentration of Al is mathematically certain to exceed the benchmark value.

Attachments

No attachments.

Report Last Saved By

TRIAD NATIONAL SECURITY LLC

User:	leslie@lanl.gov
Name:	Leslie Dale
E-Mail:	leslie@lanl.gov
Date/Time:	2019-12-19 16:30 (Time Zone: -06:00)

Report Last Signed By

User:	TERRILLLEMKE
Name:	Terrill Lemke
E-Mail:	tlemke@lanl.gov
Date/Time:	2019-12-19 16:39 (Time Zone: -06:00)

DMR Copy of Record

Permit

Permit #:	**NMR050013**	**Permittee:**	TRIAD NATIONAL SECURITY LLC	**Facility:**	LOS ALAMOS NATIONAL LABORATORY
Major:	No	**Permittee Address:**	PO BOX 1663 MS K490 LOS ALAMOS, NM 87545	**Facility Location:**	PO BOX 1663 LOS ALAMOS, NM 87545
Permitted Feature:	022 External Outfall	**Discharge:**	**022-IW** Impaired Water		

Report Dates & Status

Monitoring Period:	**From 12/01/18 to 11/30/19**	**DMR Due Date:**	**01/31/20**	**Status:**	**NetDMR Validated**

Considerations for Form Completion

Yearly based upon the alternate monitoring season of April 1 through November 30.

Principal Executive Officer

First Name:	**Title:**	**Telephone:**
Last Name:		

No Data Indicator (NODI)

Form NODI: --

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration							# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
X 01040	Copper, dissolved [as Cu]	1 - Effluent Gross	0	--	Sample											13.4	28 - ug/L		01/YR - Annual	GR - GRAB
					Permit Req.										<=	7.0 MAXIMUM	28 - ug/L	1	01/YR - Annual	GR - GRAB
					Value NODI															
X 01104	Aluminum, total recoverable	1 - Effluent Gross	0	--	Sample											14900.0	28 - ug/L		01/YR - Annual	GR - GRAB
					Permit Req.										<=	1010.0 MAXIMUM	28 - ug/L	1	01/YR - Annual	GR - GRAB
					Value NODI															
39516	Polychlorinated biphenyls [PCBs]	1 - Effluent Gross	0	--	Sample										<	0.0343	28 - ug/L		01/YR - Annual	GR - GRAB
					Permit Req.										<=	0.2 MAXIMUM	28 - ug/L	0	01/YR - Annual	GR - GRAB
					Value NODI															

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

Parameter		Monitoring Location	Field	Type	Description	Acknowledge
Code	Name					
01040	Copper, dissolved [as Cu]	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
01104	Aluminum, total recoverable	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes

Comments

LA-UR-19-32659. The impaired water pollutants Al and Cu exceeded the New Mexico Water Quality Standard. The impaired water pollutant total Aroclor was not detected in stormwater discharge from this outfall therefore annual monitoring will be discontinued per Part 6.2.4.1.

Attachments

No attachments.

Report Last Saved By

TRIAD NATIONAL SECURITY LLC

User:	leslie@lanl.gov
Name:	Leslie Dale
E-Mail:	leslie@lanl.gov
Date/Time:	2020-01-09 09:00 (Time Zone: -06:00)

Report Last Signed By

User:	TERRILLLEMKE
Name:	Terrill Lemke
E-Mail:	tlemke@lanl.gov
Date/Time:	2020-01-09 13:29 (Time Zone: -06:00)

Attachment 6: **ANNUAL REPORTS**

Los Alamos
NATIONAL LABORATORY
EST. 1943

Environmental Protection & Compliance Division
Los Alamos National Laboratory
PO Box 1663, K490
Los Alamos, NM 87545
505-667-0666

Symbol: EPC-DO: 19-029
LAUR: 19-20724
Date: JAN 30 2019

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

Subject: National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR050013, 2018 Multi-Sector General Permit (MSGP) Annual Report for Los Alamos National Laboratory (LANL)

To Whom It May Concern:

Enclosed is the 2018 MSGP Annual Report (Attachment 1) for LANL as required by Part 7.5 of the MSGP.

EPA's Electronic Reporting Rule requires that the Annual Report be submitted using the NeT-MSGP program service on the EPA Central Data Exchange system. However, due to unique conditions related to LANL's monitoring requirements, LANL's NOI was not generated on NeT-MSGP, thus LANL is unable to submit the Annual Report electronically. Correspondence from Nasim Jahan (EPA Region 6) and Emily Hack (NPDES eReporting Help Desk) are included as Attachments 2 and 3, respectively.

Please contact Holly Wheeler at (505) 667-1312 or Terrill Lemke at (505) 665-2397 if you have questions.

Very truly yours,

Terrill W. Lemke
Storm Water Team Leader

TWL/HLW:jdm

Attachment(s): Attachment 1 Annual Report for Stormwater Discharges Associated with Industrial Activity under the NPDES Multi-Sector General Permit
Attachment 2 Email correspondence from Nasim Jahan dated 9/26/2018
Attachment 3 Email correspondence from Emily Hack dated 10/26/2018

Copy: Nasim Jahan, USEPA, Region 6, jahan.nasim@epa.gov, (E-File)
Sarah Holcomb, NMED, sarah.holcomb@state.nm.us, (E-File)
Karen E. Armijo, LASO-MA-LS, Karen.armijo@nnsa.doe.gov, (E-File)
Michael W. Hazen, ESHQSS, mhazen@lanl.gov, (E-File)
William R. Mairson, ESHQSS, wrmairson@lanl.gov, (E-File)
Enrique Torres, EPC-DO, etorres@lanl.gov, (E-File)
Taunia Van Valkenburg, EPC-CP, tauniav@lanl.gov, (E-File)
Terrill W. Lemke, EPC-CP, tlemke@lanl.gov, (E-File)
Holly L. Wheeler, EPC-CP, hbenson@lanl.gov, (E-File)
Tim Dolan, GC-ESH, tdolan@lanl.gov, (E-File)
emla.docs@em.doe.gov, (E-File)
locatestream@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)
adesh-records@lanl.gov, (E-File)

ATTACHMENT 1

Annual Report for Stormwater Discharges
Associated with Industrial Activity Under the NPDES
Multi-Sector General Permit

EPC-DO: 19-029

LA-UR: 19-20724

Date: JAN 30 2019

NPDES FORM 6100-28	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 ANNUAL REPORT FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY UNDER THE NPDES THE NPDES MULTI-SECTOR GENERAL PERMIT	Form Approved. OMB No. 2040-0004

A. Approval to Use Paper Annual Report 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: 09/26/2018

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper annual report 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

1. NPDES ID: NMR050013

C. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Phone: 505-665-2397 Ext.

3. Facility Mailing Address:

Street: PO Box 1663 K490

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

County or Similar Government Subdivision: Los Alamos

4. Point of Contact:

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

D. General Findings

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 pavement deicers containing urea (e.g., "Urea was not used at [name of airport] for pavement deicing in the past year and will also not be used in 2015." (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 Triad National Security, LLC (Triad), consists of 8 active industrial sites that operate under 7 different Sectors (A, D, F, N, O, P, and AA), 37 sites that qualify for a conditional exclusion for no exposure, and one inactive site. Permit coverage became effective on November 1, 2018. All 8 active sites were inspected according to the schedules identified in the site-specific Stormwater Pollution Prevention Plans (SWPPPs). The 37 no exposure sites and one inactive site were inspected between November 1, 2018 and January 9, 2019. A summary of inspections/evaluations and associated corrective actions are included in Table 1 (attached).

2. Provide a summary of your past year's quarterly visual assessment documentation (see Part 3.2.2 of the permit).

Monitoring requirements under Permit Tracking ID NMR050013 commence on April 1, 2019. No visual assessments were conducted between November 1, 2018 and December 31, 2018.

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.

Not applicable (see response to #2).

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.

Please see Table 1 for a summary of identified corrective actions, which specifies the frequency of each of the following by site: (1) unauthorized release or discharge, (2) control measures needing maintenance, repair or replacement, and (3) control measures that were inadequate to meet the non-numeric effluent limitations. Table 2 (attached) provides a summary of outstanding corrective actions.

E. 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: Terrill W Lemke

Title: Storm Water Team Leader

Signature: _____ Date: __ / __ / ____

E-mail: tlemke@lanl.gov

Table 1. Summary of Inspections and Associated Corrective Actions

Facility	Status	Inspections Conducted Between 11/1/2018 and 1/9/2019	Unauthorized Release or Discharge	Control Measures Needing Maintenance, Repair, or Replacement	Control Measures Inadequate to Meet Non-Numeric Effluent Limitations
TA-3-22 Power and Steam Plant	Active	2	1	3	2
TA-3-29 Indoor TSD	No Exposure	1	—	—	—
TA-3-29 Machine Shop	No Exposure	1	—	—	—
TA-3-30 Warehouse	No Exposure	1	1	—	2
TA-3-32 Metal Shop	No Exposure	1	—	—	1
TA-3-34-Metal Shop	No Exposure	1	—	—	—
TA-3-38 Carpenter Shop	Active	2	—	—	—
TA-3-38 Metals Fabrication Shop	Active	2	—	—	2
TA-3-39 and 102 Metal Shop	No Exposure	1	1	—	2
TA-3-40, Room 131S Machine Shop	No Exposure	1	—	—	1
TA-3-66 Sigma Facility	No Exposure	1	1	—	—
TA-3-2206 Warehouse	No Exposure	1	—	—	—
TA-9-28 Heavy Equipment Maintenance	No Exposure	1	—	—	1
TA-14-23 Burn Cage	No Exposure	1	—	—	—
TA-15-185 Phermex	Inactive	1	—	—	—
TA-15-313 Machine Shop	No Exposure	1	—	—	—
TA-22-52 Machine Shop	No Exposure	1	—	—	1
TA-33-39 Machine Shop	No Exposure	1	—	—	1
TA-33-113 Machine Shop	No Exposure	1	—	—	1
TA-35-2 Machine Shop	No Exposure	1	—	—	—
TA-35-125 Machine Shop	No Exposure	1	—	—	—
TA-35-213 Machine Shop	No Exposure	1	—	—	—
TA-46-31 Machine Shop	No Exposure	1	—	—	1
TA-46-77	No Exposure	1	—	—	—
TA-48-8 Machine Shop	No Exposure	1	—	—	—
TA-50-54 Machine Shop	No Exposure	1	—	—	—
TA-50-69 WCRRF	No Exposure	1	—	—	—
TA-53-2 Machine Shop	No Exposure	1	—	—	—
TA-53-16/0726 Machine Shop	No Exposure	1	—	—	2
TA-53-26 Machine Shop	No Exposure	1	—	—	2
TA-54-38 Indoor TSD	No Exposure	1	—	—	—
TA-54-38 Outdoor TSD	No Exposure	1	—	—	—
TA-55-3 Metal Shop	No Exposure	1	—	—	—
TA-55-PF-4 Indoor TSD	No Exposure	1	—	—	—
TA-55-5 Warehouse	No Exposure	1	—	—	—
TA-55-268 Warehouse	No Exposure	1	—	—	—
TA-55-314 Warehouse	No Exposure	1	—	—	—

Facility	Status	Inspections Conducted Between 11/1/2018 and 1/9/2019	Unauthorized Release or Discharge	Control Measures Needing Maintenance, Repair, or Replacement	Control Measures Inadequate to Meet Non-Numeric Effluent Limitations
TA-55-355	No Exposure	1	—	—	—
TA-55-432	No Exposure	1	—	—	—
TA-55 Outdoor TSD	No Exposure	1	—	—	—
TA-60 Asphalt Batch Plant	Active	2	1	—	1
TA-60 MRF	Active	2	—	—	3
TA-60 Roads and Grounds	Active	2	3	1	3
TA-60-1 Heavy Equipment Yard	Active	2	—	—	10
TA-60-2 Warehouse	Active	2	1	1	1
TA-63 Transuranic Waste Facility	No Exposure	1	—	—	—
Totals	46	54	9	5	37

TSD=Treatment, storage and disposal
WCRRF=Waste Characterization, Reduction, and Repackaging Facility
PF = Plutonium Facility
MRF=Material Recycling Facility

Table 2. Summary of Outstanding Corrective Actions

Facility Description	Inspection Date	Inspection Type Description	Finding Description	Problem Description	Corrective Action Description	Completed	Date Corrective Action was Initiated	Expected Completion Date	Corrective Action Completion Date	Description of Noncompliance
TA-60-1 Heavy Equipment Yard	12/19/2018	Routine facility inspection	Control measure inadequate to meet non-numeric effluent limitations	Within the lower east yard at the TA-60-1 Heavy Equipment Yard, leftover ducting and straps were abandoned outside with no controls in place. Housekeeping issue.	Site representative contacted the Electrical Foreman, whom was believed to be responsible for the material on 12/20/2018. However, during a walk down on that date, it was confirmed that he was not responsible for the material. LANL was closed from 12/22/2018 through 1/03/2019. On 1/10/2019, the site representative contacted a member of the sheet metal workers to pick up the material. It was confirmed on 1/28/2019 that the material is under several feet of snow. Sheet metal workers agree to remove the material once it is accessible.	No	12/20/2018	02/28/2019	N/A	Inadequate documentation of requirements in Parts 4.3.1, 4.3.2, and 4.4.
TA-60-1 Heavy Equipment Yard	12/19/2018	Routine facility inspection	Control measure inadequate to meet non-numeric effluent limitations	East of the TA-60-1, in the southern part of the upper yard, several broken solar panels are being stored outside.	Salvage was contacted on 12/19/2018 and 1/15/2019 to determine if they could pick up the panels, but they did not respond. On 1/28/2019, the site representative contacted the Material Recycling Facility (MRF) to determine whether the solar panels could be sent to them. On 1/29/2018 the solar panels were taken to the MRF.	Yes	12/19/2018	N/A	1/29/2019	Inadequate documentation of requirements in Parts 4.3.1, 4.3.2, and 4.4.
TA-60-1 Heavy Equipment Yard	12/19/2018	Routine facility inspection	Control measure inadequate to meet non-numeric	There are several pieces of metal for fabrication and old pieces of equipment that are rusting and not covered.	LANL was closed from 12/22/2018 through 1/03/2019. Starting on 12/26/2018, several snow events occurred. A walk	No	Not documented.	1/31/2019	N/A	Inadequate documentation of requirements in Parts 4.3.1, 4.3.2, and 4.4.

Facility Description	Inspection Date	Inspection Type Description	Finding Description	Problem Description	Corrective Action Description	Completed	Date Corrective Action was Initiated	Expected Completion Date	Corrective Action Completion Date	Description of Noncompliance
			effluent limitations	Specific equipment and locations are as follows: Tail gate and apron in the lower east yard; a rusted metal beam at the same general location; and metal mesh, diamond steel and steel sheets in the central portion of the lower east yard.	down on 1/28/2019 determined the snow melted enough to be place tarps on the identified equipment and metal by 1/31/2019.					
TA-60-1 Heavy Equipment Yard	12/19/2018	Routine facility inspection	Control measure inadequate to meet non-numeric effluent limitations	On the east side of the TA-60-1, Heavy Equipment Yard, tires are being stockpiled outside with no stormwater controls in place.	Tires were transported to MRF where they will be covered, then transported to the Los Alamos County Landfill.	Yes	Not documented.	N/A	1/29/2019	Inadequate documentation of requirements in Parts 4.3.1, 4.3.2, and 4.4.
TA-60-1 Heavy Equipment Yard	12/19/2018	Routine facility inspection	Control measure inadequate to meet non-numeric effluent limitations	At the far northwest corner of the TA-60-1 Heavy Equipment Yard, stormwater is sheet flowing off the asphalt private vehicle parking area and causing erosion to the soil between there and Maniac Road.	Site representative walked down the eroded area with personnel from Roads and Grounds (R&G) on 12/20/2018. R&G will regrade the area and stabilize it with asphalt millings until the area is paved later in the year. LANL was closed from 12/22/2018 through 1/03/2019. Starting on 12/26/2018, several snow events occurred. On 1/11/2019, the Excavation Permit review was completed. The R&G crew is waiting for line locates in the area before they can regrade and stabilize. Work is proposed to be completed by 2/28/2019.	No	12/20/2018	2/28/2019	N/A	Inadequate documentation of requirements in Parts 4.3.1, 4.3.2, and 4.4.
TA-60-1 Heavy Equipment Yard	12/19/2018	Routine facility inspection	Control measure inadequate to meet non-numeric	At several locations within the TA-60-1 Heavy Equipment Yard, either metal storage racks are not covered, the existing covers need to be	LANL was closed from 12/22/2018 through 1/03/2019. Starting on 12/26/2018, several snow events occurred. Tarps will be replaced, resituated or	No	Not documented.	1/31/2019	N/A	Inadequate documentation of requirements in Parts 4.3.1, 4.3.2, and 4.4.

Facility Description	Inspection Date	Inspection Type Description	Finding Description	Problem Description	Corrective Action Description	Completed	Date Corrective Action was Initiated	Expected Completion Date	Corrective Action Completion Date	Description of Noncompliance
			effluent limitations	replaced, or metal is stored near a rack on the ground and needs to be covered. Specific locations include: north of structure TA-60-330; blade storage area on the north side of the lower east yard; far east end of lower east yard; between trailers TA-60-008 and 009; and the west side of TA-60-1 (center area).	installed to cover materials by 1/31/2019.					
TA-60-1 Heavy Equipment Yard	12/19/2018	Routine facility inspection	Control measure inadequate to meet non-numeric effluent limitations	Steel, for fabrication of ladder racks, was stored outside west of TA-60-1 without being covered.	Part of the steel was covered or removed on 12/21/2018.	Yes	Not documented.	N/A	12/21/2018	Inadequate documentation of requirements in Parts 4.3.1, 4.3.2, and 4.4.
TA-60-1 Heavy Equipment Yard	12/19/2018	Routine facility inspection	Control measure inadequate to meet non-numeric effluent limitations	Three roll-off bins were not covered. Two were located in the lower yard and one was in the paved area east of TA-60-1.	The roll-off bin containing metal for recycle was sent to MRF on 12/20/2018. A rental truck was being used at MRF because their regular truck was being repaired. The rental truck was unable to move the wood bin due to its weight. The recycle bin containing wood was taken to MRF on 1/29/2019. Roll-off bins containing tires were sent to MRF on 12/20/2018 and 1/29/2019. The new bin for tires was covered with a tarp on 1/29/2019.	Yes	Not documented.	N/A	1/29/2019	Inadequate documentation of requirements in Parts 4.3.1, 4.3.2, and 4.4.
TA-60 Roads and Grounds	12/17/2018	Routine facility inspection	Control measure inadequate to meet non-numeric effluent limitations	A Hamm roller appears to be abandoned within the Sigma Mesa Staging Area at TA-60 Roads and Grounds east. Liquids have not been drained from the equipment.	On 12/12/2018 a drip pan with spill pads and pillows was placed underneath the Hamm roller to help capture any drips from the small leak. By 1/7/2019, approximately 20 or more inches of leftover snow	Yes	12/17/2018	N/A	1/26/2019	Inadequate documentation of requirements in Part 4.3.2.

Facility Description	Inspection Date	Inspection Type Description	Finding Description	Problem Description	Corrective Action Description	Completed	Date Corrective Action was Initiated	Expected Completion Date	Corrective Action Completion Date	Description of Noncompliance
					from multiple storms that dropped 3 feet of snow by 1/1/2019, impeded access to Hamm roller. On 1/18/2019, during the routine facility inspection, there was no new signs of leakage inside the drip pan underneath the Hamm roller. On 1/26/2019, the motor oil and hydraulic fluids were removed from the Hamm roller..					
TA-60 Asphalt Batch Plant	12/17/2018	Routine facility inspection	Unauthorized release or discharge	At the TA-60 Asphalt Batch Plant, the pump to the heating oil tank is leaking oil.	On 12/11/2017 Roads and Grounds contacted TP Pump out of Albuquerque for a quote on a replacement pump. On 12/17/2018 a new pump was ordered from Honstein Oil & Distribution out of Santa Fe with a 20 day business lead time. On 12/18/2018, the Asphalt Batch Plant was shut down which turns the pump off and stops it from leaking. On 12/20/2018, the soil south of the tank and within the secondary containment basin was cleaned up and the affected area was sprayed with Micro-Blaze. During the routine facility inspection on 1/16/2019, it was determined that power to the Asphalt Batch Plant had not been restored and the pump to the heating oil was not leaking. The new replacement pump is now scheduled to arrive on 2/25/2019. The expected completion date for this corrective action is close of business on 2/28/2019.	No	12/17/2018	2/28/2019	N/A	Inadequate documentation of requirements in Part 4.3.2.

Facility Description	Inspection Date	Inspection Type Description	Finding Description	Problem Description	Corrective Action Description	Completed	Date Corrective Action was Initiated	Expected Completion Date	Corrective Action Completion Date	Description of Noncompliance

ATTACHMENT 2

Email correspondence from Nasim Jahan dated 9/26/2018

EPC-DO: 19-029

LA-UR: 19-20724

Date: JAN 30 2019

From: Lemke, Terrill W
To: Dolan, Timothy Aloysius; Dale, Leslie J; Wheeler, Holly Lynn
Subject: FW: Request for LANL Paper MSGP NOI Waiver
Date: Wednesday, September 26, 2018 4:15:53 PM

FYI

Terrill Lemke, PE, CPESC, CISEC
Environmental Compliance Programs
Los Alamos National Laboratory
Los Alamos, NM
Office: 505-665-2397
Cell: 505-699-0725

From: Jahan, Nasim <Jahan.Nasim@epa.gov>
Sent: Wednesday, September 26, 2018 2:43 PM
To: Lemke, Terrill W <tlemke@lanl.gov>
Cc: Emily Gorman <emily@avanticorporation.com>
Subject: RE: Request for LANL Paper MSGP NOI Waiver

Dear Mr. Terrill:

EPA, Region 6 is approving your request for paper submission as the facility is unable to submit the NOI online.. Please mail the hardcopies to the following address:

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

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

Nasim Jahan

Environmental Engineer
Permits and Technical Section (6WQ-PP)
EPA Region 6 Water Quality Protection Division
1445 Ross Avenue, Ste. 1200

Dallas, TX 75202-2733
Phone: 214.665.7522
Fax: 214.665.2191

1. Part 9.6.2 of the 2015 MSGP, Permit Conditions for the State of New Mexico, requires that benchmark values be modified to reflect New Mexico water quality standards for facilities in New Mexico, based on benchmark values from the Standards for Interstate and Intrastate Surface Waters (20.6.4.900 New Mexico Administrative Code [NMAC]). These modified benchmark values are not recognized by NeT-MSGP and populated in NetDMR.
2. The 2018-2020 State of New Mexico Clean Water Act §303(d)/ §305(b) Integrated Report requires monitoring of impaired waters pollutants not available for selection in NeT-MSGP (e.g., Adjusted Gross Alpha and Temperature).
3. 20.6.4.900 NMAC requires monitoring of certain modified benchmark and impaired waters metals pollutants as dissolved species, which are not available for selection in NeT-MSGP. Currently, only total metals species may be assigned in NeT-MSGP.
4. Due to extended frozen conditions during the winter and a semi-arid climate, Triad will implement an alternative 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 alternate monitoring schedule does not coincide with the default four (4) three-month quarters listed in Part 6.1.7 of the 2015 MSGP and NeT-MSGP does not allow input of an

alternate monitoring schedule. Accordingly, annual impaired waters and Effluent Limitation Guideline monitoring will be conducted between April 1 and November 30 of each year.

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

These system limitations directly result in inaccurate pollutants, limits, monitoring periods and DMR due dates being populated in NetDMR.

EPA Region 6 has recognized the challenges that the outgoing operator (LANS) has identified with NeT-MSGP related to compliance with Part 9.6.2 of the 2015 MSGP, Permit Conditions for the State of New Mexico, and has been instrumental in helping LANS to resolve these issues. Therefore, per your verbal direction, we are requesting a waiver for Triad to submit a paper NOI in lieu of submitting an inaccurate and incomplete NOI in NeT-MSGP. Please advise at your earliest convenience if you concur with our submittal of a paper NOI, as we must submit by Oct 2.

We appreciate your assistance in helping us maintain compliance. If you have any questions, please contact me at (505) 665-2397.

Terrill

Terrill Lemke, PE, CPESC, CISEC
Environmental Compliance Programs
Los Alamos National Laboratory
Los Alamos, NM
Office: 505-665-2397
Cell: 505-699-0725

ATTACHMENT 3

Email correspondence from Emily Hack dated 10/26/2018

EPC-DO: 19-029

LA-UR: 19-20724

Date: JAN 30 2019

From:	Emily Hack (Avanti) (EPA NeT Support)
Cc:	Jahan Nasim; Wheeler, Holly Lynn; Dale, Leslie J; Hazen, Michael W
Subject:	NMR050013 - Triad National Security LLC - MSGP Notice of Intent
Date:	Friday, October 26, 2018 11:13:07 AM
Attachments:	NMR050013_Triad_Los Alamos National Laboratory_2015 MSGP NOI Acknowledgement.pdf Triad National Security LLC_Los Alamos National Laboratory_10-02-2018.pdf

You are CC'ed on this support request (10066). Reply to this email to add a comment to the request.

Emily Hack (Avanti) (EPA NeT Support)

Good afternoon,

The paper Notice of Intent (NOI) submitted under EPA's Multi-Sector General Permit (MSGP) for Los Alamos National Laboratory under Triad National Security LLC has been processed by the EPA NPDES eReporting Help Desk. The facility was assigned NPDES ID NMR050013. Please, retain the attached acknowledgement letter for your records.

Due to the unique nature of the outfall sequence and monitoring requirements, EPA instructed that we enter the NOI directly into the back-end system. Therefore, the NOI will not be generated in the NeT MSGP program at this time. Attached is the NOI that we received. As I'm sure you are aware, for any changes to the NOI in the future, please submit them via paper as well.

Please, let me know if you have any questions.

Sincerely,

Emily Hack
NPDES eReporting Help Desk
Staffed by Avanti Corporation
1-877-227-8965
NPDESeReporting@epa.gov

Los Alamos
NATIONAL LABORATORY
EST. 1943

Environmental Protection & Compliance Division
Compliance Programs Group
PO Box 1663, K490
Los Alamos, New Mexico 87545
505-667-0666

Symbol: EPC-DO: 20-032
LAUR: 20-20880
Date: JAN 29 2020

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

Subject: **National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR050013, 2019 Multi-Sector General Permit (MSGP) Annual Report for Los Alamos National Laboratory (LANL)**

To Whom It May Concern:

Enclosed is the 2019 MSGP Annual Report (Attachment 1) submitted by Triad National Security, LLC (Triad) for Los Alamos National Laboratory as required by Part 7.5 of the MSGP.

EPA's Electronic Reporting Rule requires that the Annual Report be submitted using the NeT-MSGP program service on the EPA Central Data Exchange system. However, due to unique conditions related to LANL's monitoring requirements, LANL's NOI was not generated on NeT-MSGP, thus LANL is unable to submit the Annual Report electronically. Correspondence from Nasim Jahan (EPA Region 6) and Emily Hack (NPDES eReporting Help Desk) are included as Attachments 2 and 3, respectively.

Please contact Holly Wheeler at (505) 667-1312 or Terrill Lemke at (505) 665-2397 if you have questions.

Sincerely,

Terrill W. Lemke
Storm Water Team Leader

TWL/HLW:jdm

Attachment(s): Attachment 1 National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR050013 Multi-Sector General Permit (MSGP) 2019 Annual Report
Attachment 2 Email correspondence from Nasim Jahan dated 9/26/2018
Attachment 3 Email correspondence from Emily Hack dated 10/26/2018

Copy: Nasim Jahan, USEPA, Region 6, jahan.nasim@epa.gov
Sarah Holcomb, NMED/SWQB, sarah.holcomb@state.nm.us
Karen E. Armijo, NA-LA, Karen.armijo@nnsa.doe.gov
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Tim Dolan, GC-ESH, tdolan@lanl.gov
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adesh-records@lanl.gov

ATTACHMENT 1

National Pollutant Discharge Elimination System
(NPDES) Permit Tracking No. NMR050013
Multi-Sector General Permit (MSGP) 2019
Annual Report

EPC-DO: 20-032

LA-UR-20-20880

Date: JAN 2 9 2020

National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR050013

Multi-Sector General Permit (MSGP) 2019 Annual Report

1. A summary of routine inspection documentation from January 1, 2019 through December 31, 2019 required in Part 3.1.2.

   Los Alamos National Laboratory (LANL), operated by Triad National Security, LLC (Triad), consists of 8 active industrial sites that operate under 6 different Sectors (A, D, N, O, P, and AA). Permit coverage became effective on November 1, 2018. All 8 active sites were inspected according the schedules identified in the site-specific Stormwater Pollution Prevention Plans (SWPPPs). The 37 sites that qualify for a conditional exclusion for no exposure were inspected between January 1, 2019 and December 31, 2019. A summary of inspections/evaluations and associated corrective actions are included in Table 1. An evaluation of analytical monitoring data and summary of results for the 2019 calendar year was conducted on 1/21/2020 and is included in Table 2.

Table 1. Summary of Inspections and Associated Corrective Actions

Facility	Status	Inspections Conducted Between 1/1/2019 and 12/31/2019	Unauthorized Release or Discharge	Control Measures Needing Maintenance, Repairs, or Replacement or Installed Incorrectly	Control Measures Inadequate to Meet Non-Numeric Effluent Limitations	Incidents of Noncompliance (Effluent Limitation Guidelines Exceedances)	Incidents of Noncompliance [New Mexico Water Quality Standard (NM WQS) Exceedances]	Incidents of Noncompliance (Average Exceeds or is Mathematically Certain to Exceed Benchmark Value Modified to Reflect a NM WQS per 2015 MSGP Part 9.6.2.1)	Average Exceeds or is Mathematically Certain to Exceed Benchmark Value	Total Corrective Actions by Facility
TA-3-22 Power and Steam Plant	Active	12	1	13	10	—	5	—	3	32
TA-3-29 Indoor TSD	No Exposure	1	—	—	—	—	—	—	—	—
TA-3-29 Machine Shop	No Exposure	1	—	—	—	—	—	—	—	—
TA-3-30 Warehouse	No Exposure	1	2	—	—	—	—	—	—	2
TA-3-32 Metal Shop	No Exposure	1	—	—	—	—	—	—	—	—
TA-3-34 Metal Shop	No Exposure	1	—	—	—	—	—	—	—	—
TA-3-38 Carpenter Shop	Active	12	—	1	3	—	—	—	—	4
TA-3-38 Metals Fabrication Shop	Active	12	2	8	5	—	2	—	2	19
TA-3-39 and 102 Metal Shop	No Exposure	1	1	—	1	—	—	—	—	2
TA-3-40, Room 1315 Machine Shop	No Exposure	1	—	—	—	—	—	—	—	—
TA-3-66 Sigma Facility	No Exposure	1	3	—	2	—	—	—	—	5
TA-3-2206 Warehouse	No Exposure	1	—	—	1	—	—	—	—	1
TA-9-28 Heavy Equipment Maintenance	No Exposure	1	1	—	—	—	—	—	—	1
TA-14-23 Burn Cage	No Exposure	1	—	—	—	—	—	—	—	—
TA-15-185 Phermex	No Exposure	1	—	—	—	—	—	—	—	—
TA-15-313 Machine Shop	No Exposure	1	2	—	—	—	—	—	—	2
TA-22-52 Machine Shop	No Exposure	1	—	—	—	—	—	—	—	—
TA-33-39 Machine Shop	No Exposure	1	—	—	—	—	—	—	—	—

Facility	Status	Inspections Conducted Between 1/1/2019 and 12/31/2019	Unauthorized Release or Discharge	Control Measures Needing Maintenance, Repairs, or Replacement or Installed Incorrectly	Control Measures Inadequate to Meet Non-Numeric Effluent Limitations	Incidents of Noncompliance (Effluent Limitation Guidelines Exceedances)	Incidents of Noncompliance [New Mexico Water Quality Standard (NM WQS) Exceedances]	Incidents of Noncompliance (Average Exceeds or is Mathematically Certain to Exceed Benchmark Value Modified to Reflect a NM WQS per 2015 MSGP Part 9.6.2.1)	Average Exceeds or is Mathematically Certain to Exceed Benchmark Value	Total Corrective Actions by Facility
TA-33-113 Machine Shop	No Exposure	1	—	—	—	—	—	—	—	—
TA-35-2 Machine Shop	No Exposure	1	—	—	—	—	—	—	—	—
TA-35-125 Machine Shop	No Exposure	1	—	—	1	—	—	—	—	1
TA-46-31 Machine Shop	No Exposure	1	1	—	1	—	—	—	—	2
TA-46-77 Machine Shop	No Exposure	1	—	—	1	—	—	—	—	1
TA-48-8 Machine Shop	No Exposure	1	—	—	—	—	—	—	—	—
TA-50-54 Machine Shop	No Exposure	1	—	—	—	—	—	—	—	—
TA-50-69 WCRRF	No Exposure	1	—	—	—	—	—	—	—	—
TA-53-2 Machine Shop	No Exposure	1	—	—	1	—	—	—	—	1
TA-53-16 Machine Shop	No Exposure	1	—	—	1	—	—	—	—	1
TA-53-26 Machine Shop	No Exposure	1	—	—	1	—	—	—	—	1
TA-54-38 Indoor TSD	No Exposure	1	—	—	—	—	—	—	—	—
TA-54 RANT	No Exposure	1	—	—	—	—	—	—	—	—
TA-55-3 Metal Shop	No Exposure	1	—	—	1	—	—	—	—	1
TA-55-PF-4 Indoor TSD	No Exposure	1	—	—	—	—	—	—	—	—
TA-55-5 Warehouse	No Exposure	1	1	—	—	—	—	—	—	1
TA-55-268 Warehouse	No Exposure	1	—	—	—	—	—	—	—	—
TA-55-314 Warehouse	No Exposure	1	—	—	—	—	—	—	—	—
TA-55-355 TSD	No Exposure	1	1	—	—	—	—	—	—	1
TA-55-432 Warehouse	No Exposure	1	—	—	—	—	—	—	—	—
TA-55 Outdoor TSD	No Exposure	1	—	—	—	—	—	—	—	—
TA-60 Asphalt Batch Plant	Active	12	4	1	3	2	—	—	—	10
TA-60 MRF	Active	12	2	—	9	—	1	—	—	12
TA-60 Roads and Grounds	Active	12	14	12	24	—	4	—	—	54
TA-60-1 Heavy Equipment Yard	Active	12	21	24	14	—	2	2	1	64
TA-60-2 Warehouse	Active	12	2	4	6	—	4	—	—	16
TA-63 Transuranic Waste Facility	No Exposure	1	—	—	—	—	—	—	—	—
Totals	45	133	58	63	85	2	18	2	6	234

TSD=Treatment, storage and disposal
WCRRF=Waste Characterization, Reduction, and Repackaging Facility
PF = Plutonium Facility
MRF=Material Recycling Facility

Table 2. Summary of Monitoring Results

Permitted Facility	Outfall	Monitoring Type	Pollutant(s)	Monitoring Status	Reason
TA-3-22 Power & Steam Plant	005	Impaired Waters	Total recoverable Al, dissolved Cu	Continued	The pollutant was detected at a concentration that exceeded the Water Quality Standard.
TA-3-22 Power & Steam Plant	005	Impaired Waters	Total Aroclor	Discontinued	Part 6.2.4.1. The pollutant of concern was not detected and not expected to be present in discharge.
TA-3-22 Power & Steam Plant	005	Quarterly Benchmark	Total Fe	Continued	The average concentration of fewer than four quarterly monitoring values is mathematically certain to exceed the benchmark.
TA-3-22 Power & Steam Plant	009	Impaired Waters	Total recoverable Al, dissolved Cu	Continued	The pollutant was detected at a concentration that exceeded the Water Quality Standard.
TA-3-22 Power & Steam Plant	009	Impaired Waters	Total Aroclor	Discontinued	Part 6.2.4.1. The pollutant of concern was not detected and not expected to be present in discharge.
TA-3-22 Power & Steam Plant	009	Quarterly Benchmark	Total Fe	Continued	The average concentration of fewer than four quarterly monitoring values is mathematically certain to exceed the benchmark.
TA-3-22 Power & Steam Plant	012	Impaired Waters	Dissolved Cu	Continued	The pollutant was detected at a concentration that exceeded the Water Quality Standard.
TA-3-22 Power & Steam Plant	012	Impaired Waters	Total recoverable Al, Total Aroclor	Continued	Insufficient volume collected to perform analysis.
TA-3-22 Power & Steam Plant	012	Quarterly Benchmark	Total Fe	Continued	Insufficient volume collected to perform analysis.
TA-3-38 Carpenter Shop	074	Impaired Waters	Total recoverable Al, Dissolved Cu	Continued	The pollutant was detected at a concentration below the Water Quality Standard.
TA-3-38 Carpenter Shop	074	Impaired Waters	Total Aroclor	Discontinued	Part 6.2.4.1. The pollutant of concern was not detected and not expected to be present in discharge.
TA-3-38 Carpenter Shop	073	Impaired Waters	COD, TSS	Discontinued	Per Part 6.2.1.2, the average of four quarterly monitoring values does not exceed the benchmark.
TA-3-38 Metals Fab Shop	002	Impaired Waters	Total recoverable Al, dissolved Cu, Total Aroclor	Discontinued	Due to physical site changes, outfall 002 was replaced by outfall 076 on May 1, 2019, therefore monitoring at outfall 002 is discontinued.
TA-3-38 Metals Fab Shop	002	Quarterly Benchmark	NO3+NO2-N, total recoverable Al, total Fe, dissolved Zn	Discontinued	Due to physical site changes, outfall 002 was replaced by outfall 076 on May 1, 2019, therefore monitoring at outfall 002 is discontinued.
TA-3-38 Metals Fab Shop	076	Impaired Waters	Total recoverable Al	Continued	The pollutant was detected at a concentration that exceeded the Water Quality Standard.
TA-3-38 Metals Fab Shop	076	Impaired Waters	Dissolved Cu	Continued	Dissolved Copper was monitored at outfall 002 prior to being replaced by this outfall. The pollutant was detected at a concentration that exceeded the Water Quality Standard.
TA-3-38 Metals Fab Shop	076	Impaired Waters	Total Aroclor	Discontinued	Part 6.2.4.1. The pollutant of concern was not detected and not expected to be present in discharge.
TA-3-38 Metals Fab Shop	076	Quarterly Benchmark	NO3+NO2-N	Continued	Fewer than four quarterly monitoring values have been collected, however the average does not exceed the benchmark.
TA-3-38 Metals Fab Shop	076	Quarterly Benchmark	Total recoverable Al, total Fe, dissolved Zn	Continued	The average concentration of fewer than four quarterly monitoring values is mathematically certain to exceed the benchmark. Per Part 9.6.2.1, the benchmarks for Al and Zn are modified to reflect the NM WQS.
TA-60 Asphalt Batch Plant	043	Effluent Limitations Guidelines	Oil and Grease	Continued	Monitoring is required annually. The pollutant was not detected.
TA-60 Asphalt Batch Plant	043	Effluent Limitations Guidelines	TSS, pH	Continued	Monitoring is required annually. The pollutant was detected at a concentration that exceeded the daily limit.
TA-60 Asphalt Batch Plant	043	Effluent Limitations Guidelines	TSS	Continued	Monitoring is required annually. The pollutant was detected at a concentration that exceeded the 30-day average limit.
TA-60 Asphalt Batch Plant	043	Impaired Waters	Dissolved Cu, Adjusted Gross Alpha	Continued	The pollutant was detected at a concentration below the Water Quality Standard.
TA-60 Asphalt Batch Plant	043	Impaired Waters	Total Aroclor, total Hg	Discontinued	Per Part 6.2.4.1, the pollutant of concern was not detected and not expected to be present in discharge.
TA-60 Asphalt Batch Plant	043	Quarterly Benchmark	TSS	Continued	Fewer than four quarterly monitoring values have been collected, however the average does not exceed the benchmark.
TA-60 MRF	029	Impaired Waters	Dissolved Cu	Continued	The pollutant was detected at a concentration that exceeded the Water Quality Standard.
TA-60 MRF	029	Impaired Waters	Total recoverable Al	Continued	The pollutant was detected at a concentration below the Water Quality Standard.

Permitted Facility	Outfall	Monitoring Type	Pollutant(s)	Monitoring Status	Reason
TA-60 MRF	029	Impaired Waters	Total Aroclor	Discontinued	Per Part 6.2.4.1, the pollutant of concern was not detected and not expected to be present in discharge.
TA-60 Roads and Grounds	031	Impaired Waters	Dissolved Cu, Adjusted Gross Alpha	Continued	The pollutant was detected at a concentration below the Water Quality Standard.
TA-60 Roads and Grounds	031	Impaired Waters	Total Aroclor, total Hg	Discontinued	Per Part 6.2.4.1, the pollutant of concern was not detected and not expected to be present in discharge.
TA-60 Roads and Grounds	032	Impaired Waters	Total recoverable Al	Continued	The pollutant was detected at a concentration that exceeded the Water Quality Standard.
TA-60 Roads and Grounds	032	Impaired Waters	Dissolved Cu	Continued	The pollutant was detected at a concentration below the Water Quality Standard.
TA-60 Roads and Grounds	032	Impaired Waters	Total Aroclor	Discontinued	Per Part 6.2.4.1, the pollutant of concern was not detected and not expected to be present in discharge.
TA-60 Roads and Grounds	037	Impaired Waters	Total recoverable Al	Continued	The pollutant was detected at a concentration that exceeded the Water Quality Standard.
TA-60 Roads and Grounds	037	Impaired Waters	Dissolved Cu	Continued	The pollutant was detected at a concentration below the Water Quality Standard.
TA-60 Roads and Grounds	037	Impaired Waters	Total Aroclor	Discontinued	Per Part 6.2.4.1, the pollutant of concern was not detected and not expected to be present in discharge.
TA-60 Roads and Grounds	039	Impaired Waters	Dissolved Cu	Continued	The pollutant was detected at a concentration that exceeded the Water Quality Standard.
TA-60 Roads and Grounds	039	Impaired Waters	Total Aroclor, total recoverable Al	Continued	Insufficient volume collected to perform analysis.
TA-60 Roads and Grounds	042	Impaired Waters	Total recoverable Al	Continued	The pollutant was detected at a concentration that exceeded the Water Quality Standard.
TA-60 Roads and Grounds	042	Impaired Waters	Dissolved Cu	Continued	The pollutant was detected at a concentration below the Water Quality Standard.
TA-60 Roads and Grounds	042	Impaired Waters	Total Aroclor	Discontinued	Per Part 6.2.4.1, the pollutant of concern was not detected and not expected to be present in discharge.
TA-60-1 Heavy Equipment Yard	022	Impaired Waters	Total recoverable Al, dissolved Cu	Continued	The pollutant was detected at a concentration that exceeded the Water Quality Standard.
TA-60-1 Heavy Equipment Yard	022	Impaired Waters	Total Aroclor	Discontinued	Per Part 6.2.4.1, the pollutant of concern was not detected and not expected to be present in discharge.
TA-60-1 Heavy Equipment Yard	022	Quarterly Benchmark	NO3+NO2-N, total recoverable Al, total Fe, dissolved Zn	Continued	The average concentration of fewer than four quarterly monitoring values is mathematically certain to exceed the benchmark. Per Part 9.6.2.1, the benchmarks for Al and Zn are modified to reflect the NM WQS.
TA-60-2 Warehouse	026	Impaired Waters	Total recoverable Al, dissolved Cu	Continued	The pollutant was detected at a concentration that exceeded the Water Quality Standard.
TA-60-2 Warehouse	026	Impaired Waters	Total Aroclor	Discontinued	Per Part 6.2.4.1, the pollutant of concern was not detected and not expected to be present in discharge.
TA-60-2 Warehouse	075	Impaired Waters	Total recoverable Al, dissolved Cu	Continued	The pollutant was detected at a concentration that exceeded the Water Quality Standard.
TA-60-2 Warehouse	075	Impaired Waters	Total Aroclor	Discontinued	Per Part 6.2.4.1, the pollutant of concern was not detected and not expected to be present in discharge.

Al=Aluminum
Cu=Copper
COD=Chemical Oxygen Demand
Fe=Iron
NO3+NO2-N=Nitrate-Nitrite as Nitrogen
Hg=Mercury
TSS=Total Suspended Solids
Zn=Zinc
NM WQS= New Mexico Water Quality Standard
MRF=Material Recycling Facility

2. A summary of the past year's quarterly visual assessment documentation (see Part 3.2.2)

A total of 112 visual assessments were completed at 30 different outfalls. Evidence of an oil sheen was observed in two samples: Outfall 002 on 4/23/2019 and and Outfall 074 on 05/10/2019. 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, your rationale for why you believe no further reductions are achievable.

N/A

4. A summary of your past year's corrective action documentation (See Part 4.4). If corrective action is not yet completed at the time of submission of your annual report, you must describe the status of any outstanding corrective actions. 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.

Please see Table 1 for a summary of corrective action documentation, which specifies the frequency of each of the following by site: (1) unauthorized release or discharge, (2) control measures needing maintenance, repair or replacement, and (3) control measures that were inadequate to meet the non-numeric effluent limitations. There are no corrective actions not yet completed at the time of annual report submission.

Regarding incidents of noncompliance, 18 monitored constituents from different outfalls exceeded an individual New Mexico Water Quality Standard (NM WQS), 2 monitored quarterly benchmark constituent value exceedances occurred where the benchmark value was modified to reflect a NM WQS per Section 9.6.2.1, and 2 effluent limitation guideline constituent value exceedances occurred as shown in Table 2. Corrective actions to address these exceedances have been completed.

ATTACHMENT 2

Email correspondence from Nasim Jahan
dated 9/26/2018

EPC-DO: 20-032

LA-UR-20-20880

Date: JAN 2 9 2020

From: Lemke, Terrill W
To: Dolan, Timothy Aloysius; Dale, Leslie J; Wheeler, Holly Lynn
Subject: FW: Request for LANL Paper MSGP NOI Waiver
Date: Wednesday, September 26, 2018 4:15:53 PM

FYI

Terrill Lemke, PE, CPESC, CISEC
Environmental Compliance Programs
Los Alamos National Laboratory
Los Alamos, NM
Office: 505-665-2397
Cell: 505-699-0725

From: Jahan, Nasim <Jahan.Nasim@epa.gov>
Sent: Wednesday, September 26, 2018 2:43 PM
To: Lemke, Terrill W <tlemke@lanl.gov>
Cc: Emily Gorman <emily@avanticorporation.com>
Subject: RE: Request for LANL Paper MSGP NOI Waiver

Dear Mr. Terrill:

EPA, Region 6 is approving your request for paper submission as the facility is unable to submit the NOI online.. Please mail the hardcopies to the following address:

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

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

Nasim Jahan

Environmental Engineer
Permits and Technical Section (6WQ-PP)
EPA Region 6 Water Quality Protection Division
1445 Ross Avenue, Ste. 1200

Dallas, TX 75202-2733
Phone: 214.665.7522
Fax: 214.665.2191

1. Part 9.6.2 of the 2015 MSGP, Permit Conditions for the State of New Mexico, requires that benchmark values be modified to reflect New Mexico water quality standards for facilities in New Mexico, based on benchmark values from the Standards for Interstate and Intrastate Surface Waters (20.6.4.900 New Mexico Administrative Code [NMAC]). These modified benchmark values are not recognized by NeT-MSGP and populated in NetDMR.
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alternate monitoring schedule. Accordingly, annual impaired waters and Effluent Limitation Guideline monitoring will be conducted between April 1 and November 30 of each year.

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August 1 through September 30
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These system limitations directly result in inaccurate pollutants, limits, monitoring periods and DMR due dates being populated in NetDMR.

EPA Region 6 has recognized the challenges that the outgoing operator (LANS) has identified with NeT-MSGP related to compliance with Part 9.6.2 of the 2015 MSGP, Permit Conditions for the State of New Mexico, and has been instrumental in helping LANS to resolve these issues. Therefore, per your verbal direction, we are requesting a waiver for Triad to submit a paper NOI in lieu of submitting an inaccurate and incomplete NOI in NeT-MSGP. Please advise at your earliest convenience if you concur with our submittal of a paper NOI, as we must submit by Oct 2.

We appreciate your assistance in helping us maintain compliance. If you have any questions, please contact me at (505) 665-2397.

Terrill

Terrill Lemke, PE, CPESC, CISEC
Environmental Compliance Programs
Los Alamos National Laboratory
Los Alamos, NM
Office: 505-665-2397
Cell: 505-699-0725

ATTACHMENT 3

Email correspondence from Emily Hack
dated 10/26/2018

EPC-DO: 20-032

LA-UR-20-20880

Date: JAN 2 9 2020

From: Emily Hack (Avanti) (EPA NeT Support)
Cc: Jahan Nasim; Wheeler, Holly Lynn; Dale, Leslie J; Hazen, Michael W
Subject: NMR050013 - Triad National Security LLC - MSGP Notice of Intent
Date: Friday, October 26, 2018 11:13:07 AM
Attachments: NMR050013_Triad_Los Alamos National Laboratory_2015 MSGP NOI Acknowledgement.pdf
Triad National Security LLC_Los Alamos National Laboratory_10-02-2018.pdf

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##- Please type your reply above this line -##

You are CC'ed on this support request (10066). Reply to this email to add a comment to the request.

Emily Hack (Avanti) (EPA NeT Support)
Oct 26, 13:12 EDT

Good afternoon,

The paper Notice of Intent (NOI) submitted under EPA's Multi-Sector General Permit (MSGP) for Los Alamos National Laboratory under Triad National Security LLC has been processed by the EPA NPDES eReporting Help Desk. The facility was assigned NPDES ID NMR050013. Please, retain the attached acknowledgement letter for your records.

Due to the unique nature of the outfall sequence and monitoring requirements, EPA instructed that we enter the NOI directly into the back-end system. Therefore, the NOI will not be generated in the NeT MSGP program at this time. Attached is the NOI that we received. As I'm sure you are aware, for any changes to the NOI in the future, please submit them via paper as well.

Please, let me know if you have any questions.

Sincerely,

Emily Hack
NPDES eReporting Help Desk
Staffed by Avanti Corporation
1-877-227-8965
NPDESeReporting@epa.gov

Attachment 7: **ROUTINE FACILITY INSPECTIONS**

Los Alamos National Lab - ADESH

Work Order MSGP-RI-63347

MSGP Routine Inspection
Printed 11/26/2018 - 5:09 PM

Maintenance Details

Requested: 10/29/2018 10:35:40 AM
Procedure: MSGP Routine Facility Inspection (EPC-CP-Form-1020.1)
Last PM: 9/27/2018
Project: Routine Facility Inspections Nov. 2018 (P-MSGP-RI-5346)
Reason: 2018 November Inspections
Special Instructions: NMR053195

Target: 11/30/2018
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

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

Contact:
Phone:

Insp done
[redacted] 11/27/18
12:00 - 1:00

Tasks

#	Description	Meas.	No	N/A	Yes
	Weather Information				
20	Describe the weather at time of inspection and document the temperature (F°).	42° Fair	☐	☐	☑
	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 "No" has a CAR been previously initiated for this new discharge?		☐	☑	☐
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		☐	☐	☑
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		☐	☐	☑
	Outfall Inspection (identify 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? If "No", describe.		☐	☐	☑
100	**Monitored Outfall [022]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
110	**Monitored Outfall [022]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
120	**Substantially Identical Outfall [021]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
130	**Substantially Identical Outfall [021]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
140	**Substantially Identical Outfall [021]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
150	**Substantially Identical Outfall [023]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
160	**Substantially Identical Outfall [023]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
170	**Substantially Identical Outfall [023]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
180	**Substantially Identical Outfall [024]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
190	**Substantially Identical Outfall [024]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
200	**Substantially Identical Outfall [024]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
210	**Substantially Identical Outfall [025]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
220	**Substantially Identical Outfall [025]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
230	**Substantially Identical Outfall [025]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑

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? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
260	**Asphalt Berm [6000403040028]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
270	**Asphalt Berm [6000403040029]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
280	**Asphalt Berm [6000403040047]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
290	**Gravel Bags [6000403100025]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
300	**Gravel Bags [6000403100026]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
310	**Concrete/Asphalt Channel/Swale [6000404020031]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
320	**Concrete/Asphalt Channel/Swale [6000404020032]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
330	**Rock Channel/Swale [6000404030001]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
340	**Rock Channel/Swale [6000404030023]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
350	**Rock Channel/Swale [6000404030043]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
360	**Rip Rap [6000404060002]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
370	**Rip Rap [6000404060039]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
380	**Earthen Channel/Swale [6000404010033]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
390	**Earthen Channel/Swale [6000404010034]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
400	**Gabion Swale [6000404090042]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
410	**Rock Check Dam [6000406010003]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
420	**Rock Check Dam [6000406010004]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
430	**Rock Check Dam [6000406010005]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
440	**Rock Check Dam [6000406010006]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
450	**Rock Check Dam [6000406010007]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
460	**Rock Check Dam [6000406010008]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
470	**Rock Check Dam [6000406010009]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
480	**Rock Check Dam [6000406010010]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
490	**Rock Check Dam [6000406010011]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
500	**Rock Check Dam [6000406010012]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
510	**Rock Check Dam [6000406010013]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
520	**Rock Check Dam [6000406010014]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
530	**Rock Check Dam [6000406010015]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
540	**Rock Check Dam [6000406010016]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑

550	**Rock Check Dam [6000406010017]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
560	**Rock Check Dam [6000406010018]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
570	**Rock Check Dam [6000406010019]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
580	**Rock Check Dam [6000406010020]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
590	**Rock Check Dam [6000406010021]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
600	**Rock Check Dam [6000406010022]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
610	**Gabion [6000407010035]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
620	**Gabion [6000407010036]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
630	**Gabion [6000407010037]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
640	**Gabion [6000407010038]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
650	**Trench Drain [6000409040046]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
660	**Drop inlet with filters [6000409020041]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
670	**Drop Inlet with Petro-Plug [6000409010040]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
680	**EnviroSoxx w/ MetalLoxx [6000403200044]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
690	**EnviroSoxx w/ MetalLoxx [6000403200045]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
700	**EnviroSoxx w/ MetalLoxx [6000403200048]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑

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

720	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
730	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
740	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
750	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
760	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
770	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
780	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☑	☐
790	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
800	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
810	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
820	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
830	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
840	Non-stormwater/illicit connections: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☑	☐
850	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and	☐	☑	☐

	operating)? If "No" describe.				
860	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
870	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
880	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
890	**Sector P [60004-]** Vehicle storage/maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
	Non-Compliance				
910	Free of incidents of observed non-compliance not already identified above? If "No" describe.		☐	☐	☑
	Additional Control Measures				
930	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.		☐	☐	☑

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Burgin, Jillian	11/1/2018 / 1				

Labor Report

Completed: _____

Report:

WO ID: MSGP-R1-63347 Page 4 of 4

Name/Z#: Jillian Burgin / 211081

Signature (lead inspector): J. Burgin, DEP/CISEC Date and Time: 11/27/18 1:00 PM

"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, DESH Group Leader, EPC Group Leader)

Print name and title: Russell Stone GL DESH-CIS

Signature: Russell Stone Date: 12/14/2018

Los Alamos National Lab - ADESH

Work Order MSGP-RI-63447
MSGP Routine Inspection
Printed 12/17/2018 - 4:43 PM

Maintenance Details

Requested: 12/17/2018 4:33:27 PM
Procedure: MSGP Routine Facility Inspection (EPC-CP-Form-1020.1)
Last PM: 11/27/2018
Project: Routine Facility Inspections Dec. 2018 (P-MSGP-RI-5353)
Reason: 2018 December Inspections

Target: 12/31/2018
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

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

Contact:
Phone:

Insp. done
12/19/18
1:00 - 2:40 pm

Tasks

#	Description	Meas.	No	N/A	Yes
	Weather Information				
20	Describe the weather at time of inspection and document the temperature (F°). 46° Fair/windy		☐	☐	☑
	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 "No" has a CAR been previously initiated for this new discharge?		☐	☑	☐
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		☐	☐	☑
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		☐	☐	☑
	Outfall Inspection (identify 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? If "No", describe.		☐	☐	☑
100	**Monitored Outfall [022]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
110	**Monitored Outfall [022]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
120	**Substantially Identical Outfall [021]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
130	**Substantially Identical Outfall [021]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
140	**Substantially Identical Outfall [021]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
150	**Substantially Identical Outfall [023]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
160	**Substantially Identical Outfall [023]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
170	**Substantially Identical Outfall [023]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
180	**Substantially Identical Outfall [024]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
190	**Substantially Identical Outfall [024]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
200	**Substantially Identical Outfall [024]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
210	**Substantially Identical Outfall [025]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
220	**Substantially Identical Outfall [025]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
230	**Substantially Identical Outfall [025]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑

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? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
260	**Asphalt Berm [6000403040028]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
270	**Asphalt Berm [6000403040029]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
280	**Asphalt Berm [6000403040047]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
290	**Gravel Bags [6000403100025]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
300	**Gravel Bags [6000403100026]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
310	**Concrete/Asphalt Channel/Swale [6000404020031]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
320	**Concrete/Asphalt Channel/Swale [6000404020032]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
330	**Rock Channel/Swale [6000404030001]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
340	**Rock Channel/Swale [6000404030023]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
350	**Rock Channel/Swale [6000404030043]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
360	**Rip Rap [6000404060002]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
370	**Rip Rap [6000404060039]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
380	**Earthen Channel/Swale [6000404010033]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
390	**Earthen Channel/Swale [6000404010034]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
400	**Gabion Swale [6000404090042]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
410	**Rock Check Dam [6000406010003]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
420	**Rock Check Dam [6000406010004]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
430	**Rock Check Dam [6000406010005]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
440	**Rock Check Dam [6000406010006]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
450	**Rock Check Dam [6000406010007]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
460	**Rock Check Dam [6000406010008]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
470	**Rock Check Dam [6000406010009]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
480	**Rock Check Dam [6000406010010]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
490	**Rock Check Dam [6000406010011]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
500	**Rock Check Dam [6000406010012]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
510	**Rock Check Dam [6000406010013]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
520	**Rock Check Dam [6000406010014]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
530	**Rock Check Dam [6000406010015]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
540	**Rock Check Dam [6000406010016]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
550	**Rock Check Dam [6000406010017]** Control Measure is operating effectively? If "No"	☐	☐	☑

	describe condition & need for Maintenance, Repair, or Replacement.				
560	**Rock Check Dam [6000406010018]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
570	**Rock Check Dam [6000406010019]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
580	**Rock Check Dam [6000406010020]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
590	**Rock Check Dam [6000406010021]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
600	**Rock Check Dam [6000406010022]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
610	**Gabion [6000407010035]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
620	**Gabion [6000407010036]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
630	**Gabion [6000407010037]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
640	**Gabion [6000407010038]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
650	**Trench Drain [6000409040046]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
660	**Drop inlet with filters [6000409020041]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
670	**Drop Inlet with Petro-Plug [6000409010040]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
680	**EnviroSoxx w/ MetalLoxx [6000403200044]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
690	**EnviroSoxx w/ MetalLoxx [6000403200045]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
700	**EnviroSoxx w/ MetalLoxx [6000403200048]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
	Area/Activity exposed to stormwater (identify needed mainteance or a description of corrective actions in relevant task comment).				
720	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe. SEE CAR #1447, 1449, 1451, 1452, 1453, 1454,			☑	
730	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
740	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
750	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
760	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
770	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe. SEE CAR #1445, 1446, 1448			☑	
780	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.			☑	
790	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
800	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
810	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
820	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe. SEE CAR # 1450			☑	
830	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
840	Non-stormwater/illicit connections: controls adequate (appropriate, effective, and operating)? If "No" describe.			☑	
850	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.			☑	

860	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
870	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
880	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
890	**Sector P [60004-]** Vehicle storage/maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
	Non-Compliance				
910	Free of incidents of observed non-compliance not already identified above? If "No" describe.		☐	☐	☑
	Additional Control Measures				
930	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.		☐	☐	☑

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Burgin, Jillian	12/17/2018 / 1				
Wheeler, Holly	12/17/2018 / 1				

Labor Report

Completed: _____

Report:

WO ID: MSGP-RI-634447 Page 4 of 4

Name/Z#: Jillian Burgin / 211081 for Holly Wheeler / 118432 [redacted]

Signature (lead inspector): Burgin / CISEC / DEP Date and Time: 12/19/18 2:40 PM

"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, DESH Group Leader, EPC Group Leader)

Print name and title: Russell Stone GL DESH-WRS

Signature: Russell Stone Date: 12/19/2018

Los Alamos National Lab - ADESH

Work Order MSGP-RI-63456
MSGP Routine Inspection
Printed 1/15/2019 - 2:22 PM

Maintenance Details

Requested: 1/15/2019 2:09:04 PM
Procedure: MSGP Routine Facility Inspection (EPC-CP-Form-1020.1)
Last PM: 11/27/2018
Project: Routine Facility Inspections Jan. 2019 (P-MSGP-RI-5352)
Reason: MSGP Routine Facility Inspection

Target: 1/31/2019
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

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

Insp. 1/29/19
12:00 - 12:45

Contact:
Phone:

Tasks

#	Description	Meas.	No	N/A	Yes
	Weather Information				
20	Describe the weather at time of inspection and document the temperature (F°).	27° cloudy	☐	☐	☑
	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 "No" has a CAR been previously initiated for this new discharge?		☐	☑	☐
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		☐	☐	☑
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		☐	☐	☑
	Outfall Inspection (identify 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? If "No", describe.	Snow covered	☐	☑	☐
100	**Monitored Outfall [022]** Flow Dissipation Devices Operating Effectively? If "No", describe.	"	☐	☑	☐
110	**Monitored Outfall [022]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.	"	☐	☑	☐
120	**Substantially Identical Outfall [021]** Free of Evidence of Erosion? If "No", describe.	Snow covered	☐	☑	☐
130	**Substantially Identical Outfall [021]** Flow Dissipation Devices Operating Effectively? If "No", describe.	"	☐	☑	☐
140	**Substantially Identical Outfall [021]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.	"	☐	☑	☐
150	**Substantially Identical Outfall [023]** Free of Evidence of Erosion? If "No", describe.	Snow covered	☐	☑	☐
160	**Substantially Identical Outfall [023]** Flow Dissipation Devices Operating Effectively? If "No", describe.	"	☐	☑	☐
170	**Substantially Identical Outfall [023]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.	"	☐	☑	☐
180	**Substantially Identical Outfall [024]** Free of Evidence of Erosion? If "No", describe.	Snow covered	☐	☑	☐
190	**Substantially Identical Outfall [024]** Flow Dissipation Devices Operating Effectively? If "No", describe.	"	☐	☑	☐
200	**Substantially Identical Outfall [024]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.	"	☐	☑	☐
210	**Substantially Identical Outfall [025]** Free of Evidence of Erosion? If "No", describe.	Snow cov.	☐	☑	☐
220	**Substantially Identical Outfall [025]** Flow Dissipation Devices Operating Effectively? If "No", describe.	"	☐	☑	☐
230	**Substantially Identical Outfall [025]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.	"	☐	☑	☐

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? If "No" describe condition & need for Maintenance, Repair, or Replacement.	Snow covered (slc)	☐	☑	☐
260	**Asphalt Berm [6000403040028]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
270	**Asphalt Berm [6000403040029]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
280	**Asphalt Berm [6000403040047]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
290	**Gravel Bags [6000403100025]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
300	**Gravel Bags [6000403100026]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
310	**Concrete/Asphalt Channel/Swale [6000404020031]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
320	**Concrete/Asphalt Channel/Swale [6000404020032]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
330	**Rock Channel/Swale [6000404030001]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
340	**Rock Channel/Swale [6000404030023]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
350	**Rock Channel/Swale [6000404030043]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
360	**Rip Rap [6000404060002]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
370	**Rip Rap [6000404060039]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
380	**Earthen Channel/Swale [6000404010033]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
390	**Earthen Channel/Swale [6000404010034]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
400	**Gabion Swale [6000404090042]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
410	**Rock Check Dam [6000406010003]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
420	**Rock Check Dam [6000406010004]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
430	**Rock Check Dam [6000406010005]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
440	**Rock Check Dam [6000406010006]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
450	**Rock Check Dam [6000406010007]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
460	**Rock Check Dam [6000406010008]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
470	**Rock Check Dam [6000406010009]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
480	**Rock Check Dam [6000406010010]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
490	**Rock Check Dam [6000406010011]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
500	**Rock Check Dam [6000406010012]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
510	**Rock Check Dam [6000406010013]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
520	**Rock Check Dam [6000406010014]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
530	**Rock Check Dam [6000406010015]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
540	**Rock Check Dam [6000406010016]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
550	**Rock Check Dam [6000406010017]** Control Measure is operating effectively? If "No"	slc	☐	☑	☐

	describe condition & need for Maintenance, Repair, or Replacement.				
560	**Rock Check Dam [6000406010018]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
570	**Rock Check Dam [6000406010019]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
580	**Rock Check Dam [6000406010020]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
590	**Rock Check Dam [6000406010021]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
600	**Rock Check Dam [6000406010022]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
610	**Gabion [6000407010035]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
620	**Gabion [6000407010036]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
630	**Gabion [6000407010037]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
640	**Gabion [6000407010038]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
650	**Trench Drain [6000409040046]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
660	**Drop Inlet with filters [6000409020041]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
670	**Drop Inlet with Petro-Plug [6000409010040]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
680	**EnviroSoxx w/ MetalLoxx [6000403200044]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
690	**EnviroSoxx w/ MetalLoxx [6000403200045]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐
700	**EnviroSoxx w/ MetalLoxx [6000403200048]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	slc	☐	☑	☐

Area/Activity exposed to stormwater (identify needed mainteance or a description of corrective actions in relevant task comment). SEE DEC CARS #1454, 1452, 1449, (Still open)

720	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe. [redacted]		☑	☐	☐
730	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
740	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
750	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
760	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
770	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe. metal for fab uncovered NW Shop Bay	CAR # 1458	☑	☐	☐
780	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☑	☐
790	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
800	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
810	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
820	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe. SEE CAR # 1450 (Dec Insp.)		☑	☐	☐
830	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
840	Non-stormwater/illicit connections: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☑	☐
850	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☑	☐

860	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
870	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe. (Area #1459) Put accumulated tires into Rolloff bin.		☑	☐	☐
880	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
890	**Sector P [60004-]** Vehicle storage/maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
	Non-Compliance				
910	Free of incidents of observed non-compliance not already identified above? If "No" describe.		☐	☐	☑
	Additional Control Measures				
930	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.		☐	☐	☑

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Burgin, Jillian	1/15/2019 / 1				

Labor Report

Completed: _____

Report:

WO ID: MSGP - R1 - 63456 Page 4 of 4

Name/Z#: Jillian Burgin / 211081

Signature (lead inspector): J Burgin, CISEC DEP Date and Time: 1/29/19 12:45 pm

"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, DESH Group Leader, EPC Group Leader)

Print name and title: Russell Stone GC DESH-WES

Signature: [signature] Date: 2/28/2019

Los Alamos National Lab - ALDESHQSS

Work Order MSGP-RI-63468

MSGP Routine Inspection
Printed 2/12/2019 - 9:04 AM

Maintenance Details

Requested: 2/12/2019 9:00:35 AM
Procedure: MSGP Routine Facility Inspection (EPC-CP-Form-1020.2)
Last PM: 12/19/2018
Project: Routine Facility Inspections Feb. 2019 (P-MSGP-RI-5354)
Reason: 2019 February Inspections

Target: 2/28/2019
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

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

Contact:
Phone:

Insp. done
2/26/19
12:00 - 12:30 PM

Tasks

#	Description	Meas.	No	N/A	Yes
	Weather Information				
20	Describe the weather at time of inspection and document the temperature (F°).	43° clear/ Sunny	☐	☐	☑
	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 "No" has a CAR been previously initiated for this new discharge?		☐	☑	☐
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		☐	☐	☑
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		☐	☐	☑
	Outfall Inspection (identify 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? If "No", describe.	Snow covered	☐	☑	☐
100	**Monitored Outfall [022]** Flow Dissipation Devices Operating Effectively? If "No", describe.	"	☐	☑	☐
110	**Monitored Outfall [022]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.	"	☐	☑	☐
120	**Monitored Outfall [022]** Free of any unauthorized non-stormwater discharges? If "No" describe.	"	☐	☑	☐
130	**Substantially Identical Outfall [021]** Free of Evidence of Erosion? If "No", describe.	Snow cov.	☐	☑	☐
140	**Substantially Identical Outfall [021]** Flow Dissipation Devices Operating Effectively? If "No", describe.	"	☐	☑	☐
150	**Substantially Identical Outfall [021]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.	"	☐	☑	☐
160	**Substantially Identical Outfall [021]** Free of any unauthorized non-stormwater discharges? If "No" describe.	"	☐	☑	☐
170	**Substantially Identical Outfall [023]** Free of Evidence of Erosion? If "No", describe.	Snow cov.	☐	☑	☐
180	**Substantially Identical Outfall [023]** Flow Dissipation Devices Operating Effectively? If "No", describe.	"	☐	☑	☐
190	**Substantially Identical Outfall [023]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.	"	☐	☑	☐
200	**Substantially Identical Outfall [023]** Free of any unauthorized non-stormwater discharges? If "No" describe.	"	☐	☑	☐
210	**Substantially Identical Outfall [024]** Free of Evidence of Erosion? If "No", describe.	Snow cov.	☐	☑	☐
220	**Substantially Identical Outfall [024]** Flow Dissipation Devices Operating Effectively? If "No", describe.	"	☐	☑	☐
230	**Substantially Identical Outfall [024]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.	"	☐	☑	☐
240	**Substantially Identical Outfall [024]** Free of any unauthorized non-stormwater discharges? If "No" describe.	"	☐	☑	☐

250	**Substantially Identical Outfall [025]** Free of Evidence of Erosion? If "No", describe.	Snow cov.	☐	☑	☐
260	**Substantially Identical Outfall [025]** Flow Dissipation Devices Operating Effectively? If "No", describe.	"	☐	☑	☐
270	**Substantially Identical Outfall [025]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.	"	☐	☑	☐
280	**Substantially Identical Outfall [025]** Free of any unauthorized non-stormwater discharges? If "No" describe.	"	☐	☑	☐

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

300	**Asphalt Berm [6000403040027]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
310	**Asphalt Berm [6000403040028]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
320	**Asphalt Berm [6000403040029]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
330	**Asphalt Berm [6000403040047]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
340	**Gravel Bags [6000403100025]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	Snow cov	☐	☑	☐
350	**Gravel Bags [6000403100026]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	Snow cov.	☐	☑	☐
360	**Concrete/Asphalt Channel/Swale [6000404020031]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
370	**Concrete/Asphalt Channel/Swale [6000404020032]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
380	**Rock Channel/Swale [6000404030001]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	Snow cov.	☐	☑	☐ JB 2/26/09
390	**Rock Channel/Swale [6000404030023]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	Snow cov.	☐	☑	☐ JB 2/26/09
400	**Rock Channel/Swale [6000404030043]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
410	**Rip Rap [6000404060002]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
420	**Rip Rap [6000404060039]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
430	**Earthen Channel/Swale [6000404010033]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
440	**Earthen Channel/Swale [6000404010034]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
450	**Gabion Swale [6000404090042]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
460	**Rock Check Dam [6000406010003]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	Snow cov.	☐	☑	☐
470	**Rock Check Dam [6000406010004]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	"	☐	☑	☐
480	**Rock Check Dam [6000406010005]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	"	☐	☑	☐
490	**Rock Check Dam [6000406010006]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	"	☐	☑	☐
500	**Rock Check Dam [6000406010007]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	"	☐	☑	☐
510	**Rock Check Dam [6000406010008]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	"	☐	☑	☐
520	**Rock Check Dam [6000406010009]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	"	☐	☑	☐
530	**Rock Check Dam [6000406010010]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	"	☐	☑	☐
540	**Rock Check Dam [6000406010011]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	"	☐	☑	☐
550	**Rock Check Dam [6000406010012]** Control Measure is operating effectively? If "No"	"	☐	☑	☐

	describe condition & need for Maintenance, Repair, or Replacement.				
560	**Rock Check Dam [6000406010013]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. Snow cov		☐	☑	☐
570	**Rock Check Dam [6000406010014]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. "		☐	☑	☐
580	**Rock Check Dam [6000406010015]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. "		☐	☑	☐
590	**Rock Check Dam [6000406010016]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. "		☐	☑	☐
600	**Rock Check Dam [6000406010017]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. "		☐	☑	☐
610	**Rock Check Dam [6000406010018]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. "		☐	☑	☐
620	**Rock Check Dam [6000406010019]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. "		☐	☑	☐
630	**Rock Check Dam [6000406010020]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. "		☐	☑	☐
640	**Rock Check Dam [6000406010021]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. "		☐	☑	☐
650	**Rock Check Dam [6000406010022]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. "		☐	☑	☐
660	**Gabion [6000407010035]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
670	**Gabion [6000407010036]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
680	**Gabion [6000407010037]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
690	**Gabion [6000407010038]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
700	**Trench Drain [6000409040046]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
710	**Drop inlet with filters [6000409020041]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. Snow cov.		☐	☑	☐
720	**Drop Inlet with Petro-Plug [6000409010040]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. "		☐	☑	☐
730	**EnviroSoxx w/ MetalLoxx [6000403200044]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. Snow cov		☐	☑	☐
740	**EnviroSoxx w/ MetalLoxx [6000403200045]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. Snow cov.		☐	☑	☐
750	**EnviroSoxx w/ MetalLoxx [6000403200048]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. Snow cov.		☐	☑	☐
	Area/Activity exposed to stormwater (identify needed mainteance or a description of corrective actions in relevant task comment).				
770	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe. need to go in roll-off bin. Accumulated tires are uncovered.		☑	☐	☐
780	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
790	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
800	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
810	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe. Metal at NW Bay needs re-covered		☑	☐	☑
820	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe. ↓820		☑	☐	☐
830	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☑	☐
840	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
850	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑

CAR # 1467

CAR # 1466

860	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
870	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
880	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
890	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☑	☐
900	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
910	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
920	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
930	**Sector P [60004-]** Vehicle storage/maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
	Non-Compliance				
950	Free of incidents of observed non-compliance not already identified above? If "No" describe.		☐	☐	☑
	Additional Control Measures				
970	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.		☐	☐	☑

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Burgin, Jillian	2/11/2019 / 1				

Labor Report

Completed: _____

Report:

JBurgin / JBurgin, CISEC, DEP — Signature / Name
2/26/19 12:30PM — 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 nformation, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that here 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, DESH Group Leader, EPC Group Leader)

Print name and title: Russell Stone GL DESH-UIS

Signature: Russell Stone Date: 3/8/2019

Los Alamos National Laboratory

Work Order MSGP-RI-63477

MSGP Routine Inspection
Printed 2/26/2019 - 12:07 PM

Maintenance Details

Requested: 2/26/2019 11:51:46 AM
Procedure: MSGP Routine Facility Inspection (EPC-CP-Form-1020.2)
Last PM: 12/19/2018
Project: Routine Facility Inspections March 2019 (P-MSGP-RI-5355)
Reason: 2019 March Inspections

Target: 3/31/2019
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

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

Contact:
Phone:

Insp. Done:
3/26/19 12:00 - 12:40

Tasks

#	Description	Meas.	No	N/A	Yes
Weather Information					
20	Describe the weather at time of inspection and document the temperature (F°).	57° clear/Sunny	☐	☐	☑
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 "No" has a CAR been previously initiated for this new discharge?		☐	☑	☐
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		☐	☐	☑
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		☐	☐	☑
Outfall Inspection (identify 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? If "No", describe.		☐	☐	☑
100	**Monitored Outfall [022]** Flow Dissipation Devices Operating Effectively? If "No", describe. Change out wattle post-winter PM	CAR# 1484	☑	☐	☐
110	**Monitored Outfall [022]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
120	**Monitored Outfall [022]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
130	**Substantially Identical Outfall [021]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
140	**Substantially Identical Outfall [021]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
150	**Substantially Identical Outfall [021]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
160	**Substantially Identical Outfall [021]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
170	**Substantially Identical Outfall [023]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
180	**Substantially Identical Outfall [023]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
190	**Substantially Identical Outfall [023]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
200	**Substantially Identical Outfall [023]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
210	**Substantially Identical Outfall [024]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
220	**Substantially Identical Outfall [024]** Flow Dissipation Devices Operating Effectively? If "No", describe. Replace gravel bags where needed.	CAR# 1484	☑	☐	☐
230	**Substantially Identical Outfall [024]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
240	**Substantially Identical Outfall [024]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑

					Sed. clean-out (4/1/19)
250	**Substantially Identical Outfall [025]** Free of Evidence of Erosion? If "No", describe.	culvert needs CAR # 1485	☐	☐	
260	**Substantially Identical Outfall [025]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
270	**Substantially Identical Outfall [025]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
280	**Substantially Identical Outfall [025]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑

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

300	**Asphalt Berm [6000403040027]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
310	**Asphalt Berm [6000403040028]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
320	**Asphalt Berm [6000403040029]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
330	**Asphalt Berm [6000403040047]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
340	**Gravel Bags [6000403100025]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
350	**Gravel Bags [6000403100026]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	Replace where needed.	☑	☐	☐ CAR # 1484
360	**Concrete/Asphalt Channel/Swale [6000404020031]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☐
370	**Concrete/Asphalt Channel/Swale [6000404020032]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	Clean-out - Post-winter CAR #	☑	☐	☐ CAR # 1484
380	**Rock Channel/Swale [6000404030001]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
390	**Rock Channel/Swale [6000404030023]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
400	**Rock Channel/Swale [6000404030043]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
410	**Rip Rap [6000404060002]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
420	**Rip Rap [6000404060039]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
430	**Earthen Channel/Swale [6000404010033]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
440	**Earthen Channel/Swale [6000404010034]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
450	**Gabion Swale [6000404090042]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
460	**Rock Check Dam [6000406010003]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
470	**Rock Check Dam [6000406010004]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
480	**Rock Check Dam [6000406010005]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
490	**Rock Check Dam [6000406010006]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
500	**Rock Check Dam [6000406010007]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
510	**Rock Check Dam [6000406010008]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
520	**Rock Check Dam [6000406010009]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
530	**Rock Check Dam [6000406010010]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
540	**Rock Check Dam [6000406010011]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
550	**Rock Check Dam [6000406010012]** Control Measure is operating effectively? If "No"		☐	☐	☑

	describe condition & need for Maintenance, Repair, or Replacement.				
560	**Rock Check Dam [6000406010013]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
570	**Rock Check Dam [6000406010014]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
580	**Rock Check Dam [6000406010015]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
590	**Rock Check Dam [6000406010016]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
600	**Rock Check Dam [6000406010017]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
610	**Rock Check Dam [6000406010018]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
620	**Rock Check Dam [6000406010019]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
630	**Rock Check Dam [6000406010020]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
640	**Rock Check Dam [6000406010021]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
650	**Rock Check Dam [6000406010022]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
660	**Gabion [6000407010035]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
670	**Gabion [6000407010036]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
680	**Gabion [6000407010037]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
690	**Gabion [6000407010038]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
700	**Trench Drain [6000409040046]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
710	**Drop inlet with filters [6000409020041]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. ~~#120~~ CAR# 1481 Replace Filters			JB	☑
720	**Drop Inlet with Petro-Plug [6000409010040]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. ↓		☑		
730	**EnviroSoxx w/ MetalLoxx [6000403200044]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. Replace Post-winter CAR# 1484				
740	**EnviroSoxx w/ MetalLoxx [6000403200045]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. Replace Post-winter CAR# 1484				
750	**EnviroSoxx w/ MetalLoxx [6000403200048]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. Replace Post-Winter CAR# 1484				

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

770	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe. Uncovered metals (materials CARS # 1482 + 1483		☑		
780	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
790	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
800	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
810	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
820	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
830	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☑		
840	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
850	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑

860	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
870	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
880	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
890	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☑	☐
900	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
910	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe. Housekeeping needed CAR#1480 JTB		☑	☐	☑
920	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
930	**Sector P [60004-]** Vehicle storage/maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
	Non-Compliance				
950	Free of incidents of observed non-compliance not already identified above? If "No" describe.		☐	☐	☑
	Additional Control Measures				
970	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.		☐	☐	☑

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Burgin, Jillian	2/26/2019 / 1				

Labor Report

Completed: _____

Report:

J Burgin DEP CISEC 3/26/19 12:40 PM

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, DESH Group Leader, EPC Group Leader)

Print name and title: Russell Stone DESH - HES GL

Signature: Russell Stone Date: 4/9/2019

Los Alamos National Laboratory

Work Order MSGP-RI-63542

MSGP Routine Inspection
Printed 4/9/2019 - 2:32 PM

Maintenance Details

Requested: 4/9/2019 2:07:02 PM
Procedure: MSGP Routine Facility Inspection (EPC-CP-Form-1020.2)
Last PM: 2/26/2019
Project: Routine Facility Inspections April 2019 (P-MSGP-RI-5361)
Reason: MSGP Routine Facility Inspection

Target: 4/30/2019
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

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

Contact:
Phone:

Insp. done
4/23/19
12:00 - 12:40

Tasks

#	Description	Meas.	No	N/A	Yes
Weather Information					
20	Describe the weather at time of inspection and document the temperature (F°). 43° cloudy/Rainy		☐	☐	☑
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 "No" has a CAR been previously initiated for this new discharge?		☐	☑	☐
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		☐	☐	☑
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		☐	☐	☑
Outfall Inspection (identify 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? If "No", describe.		☐	☐	☑
100	**Monitored Outfall [022]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
110	**Monitored Outfall [022]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
120	**Monitored Outfall [022]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
130	**Substantially Identical Outfall [021]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
140	**Substantially Identical Outfall [021]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
150	**Substantially Identical Outfall [021]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
160	**Substantially Identical Outfall [021]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
170	**Substantially Identical Outfall [023]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
180	**Substantially Identical Outfall [023]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
190	**Substantially Identical Outfall [023]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
200	**Substantially Identical Outfall [023]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
210	**Substantially Identical Outfall [024]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
220	**Substantially Identical Outfall [024]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
230	**Substantially Identical Outfall [024]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
240	**Substantially Identical Outfall [024]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑

250	**Substantially Identical Outfall [025]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
260	**Substantially Identical Outfall [025]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
270	**Substantially Identical Outfall [025]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
280	**Substantially Identical Outfall [025]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑

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

300	**Asphalt Berm [6000403040027]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
310	**Asphalt Berm [6000403040028]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement		☐	☐	☑
320	**Asphalt Berm [6000403040029]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
330	**Asphalt Berm [6000403040047]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
340	**Gravel Bags [6000403100025]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
350	**Gravel Bags [6000403100026]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
360	**Concrete/Asphalt Channel/Swale [6000404020031]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
370	**Concrete/Asphalt Channel/Swale [6000404020032]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
380	**Rock Channel/Swale [6000404030001]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
390	**Rock Channel/Swale [6000404030023]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
400	**Rock Channel/Swale [6000404030043]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
410	**Rip Rap [6000404060002]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
420	**Rip Rap [6000404060039]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
430	**Earthen Channel/Swale [6000404010033]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
440	**Earthen Channel/Swale [6000404010034]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
450	**Gabion Swale [6000404090042]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
460	**Rock Check Dam [6000406010003]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
470	**Rock Check Dam [6000406010004]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
480	**Rock Check Dam [6000406010005]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
490	**Rock Check Dam [6000406010006]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
500	**Rock Check Dam [6000406010007]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
510	**Rock Check Dam [6000406010008]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
520	**Rock Check Dam [6000406010009]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
530	**Rock Check Dam [6000406010010]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
540	**Rock Check Dam [6000406010011]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
550	**Rock Check Dam [6000406010012]** Control Measure is operating effectively? If "No"		☐	☐	☑

	describe condition & need for Maintenance, Repair, or Replacement.				
560	**Rock Check Dam [6000406010013]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
570	**Rock Check Dam [6000406010014]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
580	**Rock Check Dam [6000406010015]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
590	**Rock Check Dam [6000406010016]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
600	**Rock Check Dam [6000406010017]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
610	**Rock Check Dam [6000406010018]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
620	**Rock Check Dam [6000406010019]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
630	**Rock Check Dam [6000406010020]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
640	**Rock Check Dam [6000406010021]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
650	**Rock Check Dam [6000406010022]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
660	**Gabion [6000407010035]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
670	**Gabion [6000407010036]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
680	**Gabion [6000407010037]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
690	**Gabion [6000407010038]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
700	**Trench Drain [6000409040046]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
710	**Drop inlet with filters [6000409020041]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
720	**Drop Inlet with Petro-Plug [6000409010040]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
730	**EnviroSoxx w/ MetalLoxx [6000403200044]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. replaced 4/3/19 - new wattle dr.		☑		
740	**EnviroSoxx w/ MetalLoxx [6000403200045]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. replaced 4/3/19 - new wattle dr		☑		
750	**EnviroSoxx w/ MetalLoxx [6000403200048]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. replaced 4/3/19 - new wattle dr		☑		

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

770	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe. Retarp / cover materials in lower E dock (wattles needed) CAR# 1496		☑		
780	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
790	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
800	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
810	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
820	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe. Retarp / cover metal fab. materials @ NW Bay. CAR# 1497		☑		
830	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.			☑	
840	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
850	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑

860	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe. Cover metal - for - recycle - Roll - off bin. CAR# 1498		☐	☐	☑
870	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
880	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
890	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☑	☐
900	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
910	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe. Remove tarps + cardboard from drainage area. CAR# 1499		☑	☐	☐
920	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
930	**Sector P [60004-P]** Vehicle storage/maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
	Non-Compliance				
950	Free of incidents of observed non-compliance not already identified above? If "No" describe.		☐	☐	☑
	Additional Control Measures				
970	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.		☐	☐	☑

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Burgin, Jillian	4/1/2019 / 1				

Labor Report

Completed: _____

Report:

Signature / Name	Date	Signature / Name	Date
J Burgin / J. Burgin	4/23/19		

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, DESH Group Leader, EPC Group Leader)

Print name and title: Russell Stone GL DESH-WIS

Signature: Russell Stone Date: 5/6/2019

Los Alamos National Laboratory

Work Order MSGP-63657
MSGP Monitoring Stations
Printed 5/8/2019 - 11:35 AM

Maintenance Details

Requested: 5/8/2019 11:30:23 AM
Procedure: MSGP Routine Facility Inspection (EPC-CP-Form-1020.2)
Last PM: 3/26/2019
Project: Routine Facility Inspections May 2019 (P-MSGP-RI-5371)
Reason: MSGP Routine Facility Inspection

Target: 5/31/2019
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

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

Contact:
Phone:

Insp. done 5/17/19
12:30 - 1:30 pm

Tasks

#	Description	Meas.	No	N/A	Yes
Weather Information					
20	Describe the weather at time of inspection and document the temperature (F°).	59° 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 "No" has a CAR been previously initiated for this new discharge?		☐	☑	☐ N/A
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		☐	☐	☑
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		☐	☐	☑
Outfall Inspection (identify 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? If "No", describe.		☐	☐	☑
100	**Monitored Outfall [022]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
110	**Monitored Outfall [022]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
120	**Monitored Outfall [022]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
130	**Substantially Identical Outfall [021]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
140	**Substantially Identical Outfall [021]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
150	**Substantially Identical Outfall [021]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
160	**Substantially Identical Outfall [021]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
170	**Substantially Identical Outfall [023]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
180	**Substantially Identical Outfall [023]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
190	**Substantially Identical Outfall [023]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
200	**Substantially Identical Outfall [023]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
210	**Substantially Identical Outfall [024]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
220	**Substantially Identical Outfall [024]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
230	**Substantially Identical Outfall [024]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
240	**Substantially Identical Outfall [024]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑

250	**Substantially Identical Outfall [025]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
260	**Substantially Identical Outfall [025]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
270	**Substantially Identical Outfall [025]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
280	**Substantially Identical Outfall [025]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑

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

300	**Asphalt Berm [6000403040027]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
310	**Asphalt Berm [6000403040028]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
320	**Asphalt Berm [6000403040029]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
330	**Asphalt Berm [6000403040047]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
340	**Gravel Bags [6000403100025]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
350	**Gravel Bags [6000403100026]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
360	**Concrete/Asphalt Channel/Swale [6000404020031]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
370	**Concrete/Asphalt Channel/Swale [6000404020032]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
380	**Rock Channel/Swale [6000404030001]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
390	**Rock Channel/Swale [6000404030023]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
400	**Rock Channel/Swale [6000404030043]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
410	**Rip Rap [6000404060002]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
420	**Rip Rap [6000404060039]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
430	**Earthen Channel/Swale [6000404010033]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
440	**Earthen Channel/Swale [6000404010034]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
450	**Gabion Swale [6000404090042]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
460	**Rock Check Dam [6000406010003]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
470	**Rock Check Dam [6000406010004]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
480	**Rock Check Dam [6000406010005]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
490	**Rock Check Dam [6000406010006]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
500	**Rock Check Dam [6000406010007]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
510	**Rock Check Dam [6000406010008]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
520	**Rock Check Dam [6000406010009]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
530	**Rock Check Dam [6000406010010]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
540	**Rock Check Dam [6000406010011]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
550	**Rock Check Dam [6000406010012]** Control Measure is operating effectively? If "No"		☐	☐	☑

	describe condition & need for Maintenance, Repair, or Replacement.				
560	**Rock Check Dam [6000406010013]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
570	**Rock Check Dam [6000406010014]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
580	**Rock Check Dam [6000406010015]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
590	**Rock Check Dam [6000406010016]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
600	**Rock Check Dam [6000406010017]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
610	**Rock Check Dam [6000406010018]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
620	**Rock Check Dam [6000406010019]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
630	**Rock Check Dam [6000406010020]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
640	**Rock Check Dam [6000406010021]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
650	**Rock Check Dam [6000406010022]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
660	**Gabion [6000407010035]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
670	**Gabion [6000407010036]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
680	**Gabion [6000407010037]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
690	**Gabion [6000407010038]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
700	**Trench Drain [6000409040046]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
710	**Drop inlet with filters [6000409020041]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
720	**Drop Inlet with Petro-Plug [6000409010040]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
730	**EnviroSoxx w/ MetalLoxx [6000403200049]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
740	**EnviroSoxx w/ MetalLoxx [6000403200050]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
750	**EnviroSoxx w/ MetalLoxx [6000403200051]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
	Area/Activity exposed to stormwater (identify needed mainteance or a description of corrective actions in relevant task comment).				
770	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
780	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
790	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
800	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
810	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
820	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
830	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.			☑	
840	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
850	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑

860	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
870	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
880	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
890	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☑	☐ jb
900	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
910	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
920	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
930	**Sector P [60004-P]** Vehicle storage/maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
	Non-Compliance				
950	Free of incidents of observed non-compliance not already identified above? If "No" describe.		☐	☐	☑
	Additional Control Measures				
970	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.		☐	☐	☑

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Burgin, Jillian	5/8/2019 / 1				

Labor Report

Completed: _____

Report:

JBurgin, DEP, CISEC 5/17/19

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, DESH Group Leader, EPC Group Leader)

Print name and title: Russell Stone GL DESH - WIS

Signature: _____ Date: 6/11/2019

Los Alamos National Laboratory

Work Order MSGP-RI-63717

MSGP Routine Inspection
Printed 6/10/2019 - 12:48 PM

Maintenance Details

Requested: 6/10/2019 12:38:53 PM
Procedure: MSGP Routine Facility Inspection (EPC-CP-Form-1020.2)
Last PM: 4/23/2019
Project: Routine Facility Inspections June 2019 (P-MSGP-RI-5377)
Reason: 2019 June Inspections

Target: 6/28/2019
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

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

Contact:
Phone:

Insp done
6/18/19
12:00 - 12:45

Tasks

#	Description	Meas.	No	N/A	Yes
	Weather Information				
20	Describe the weather at time of inspection and document the temperature (F°). 71° Sunny		☐	☐	☑
	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 "No" has a CAR been previously initiated for this new discharge?		☐	☑	☐
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		☐	☐	☑
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		☐	☐	☑
	Outfall Inspection (identify 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? If "No", describe.		☐	☐	☑
100	**Monitored Outfall [022]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
110	**Monitored Outfall [022]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
120	**Monitored Outfall [022]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
130	**Substantially Identical Outfall [021]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
140	**Substantially Identical Outfall [021]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
150	**Substantially Identical Outfall [021]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
160	**Substantially Identical Outfall [021]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
170	**Substantially Identical Outfall [023]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
180	**Substantially Identical Outfall [023]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
190	**Substantially Identical Outfall [023]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
200	**Substantially Identical Outfall [023]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
210	**Substantially Identical Outfall [024]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
220	**Substantially Identical Outfall [024]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
230	**Substantially Identical Outfall [024]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
240	**Substantially Identical Outfall [024]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑

250	**Substantially Identical Outfall [025]** Free of Evidence of Erosion? If "No", describe.	☐	☐	☑
260	**Substantially Identical Outfall [025]** Flow Dissipation Devices Operating Effectively? If "No", describe. Area needs regrading / Rock check dams need to be redone. CAR # 1547	☑	☐	☐
270	**Substantially Identical Outfall [025]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.	☐	☐	☑
280	**Substantially Identical Outfall [025]** Free of any unauthorized non-stormwater discharges? If "No" describe.	☐	☐	☑

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

300	**Asphalt Berm [6000403040027]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
310	**Asphalt Berm [6000403040028]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
320	**Asphalt Berm [6000403040029]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
330	**Asphalt Berm [6000403040047]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
340	**Gravel Bags [6000403100025]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
350	**Gravel Bags [6000403100026]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
360	**Concrete/Asphalt Channel/Swale [6000404020031]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
370	**Concrete/Asphalt Channel/Swale [6000404020032]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
380	**Rock Channel/Swale [6000404030001]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
390	**Rock Channel/Swale [6000404030023]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
400	**Rock Channel/Swale [6000404030043]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
410	**Rip Rap [6000404060002]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
420	**Rip Rap [6000404060039]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
430	**Earthen Channel/Swale [6000404010033]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
440	**Earthen Channel/Swale [6000404010034]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
450	**Gabion Swale [6000404090042]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
460	**Rock Check Dam [6000406010003]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. See CAR 1547	☑	☐	☑ jb
470	**Rock Check Dam [6000406010004]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. "	☑	☐	☑ jb
480	**Rock Check Dam [6000406010005]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. "	☑	☐	☑ jb
490	**Rock Check Dam [6000406010006]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. "	☑	☐	☐
500	**Rock Check Dam [6000406010007]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. "	☑	☐	☐
510	**Rock Check Dam [6000406010008]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. "	☑	☐	☐
520	**Rock Check Dam [6000406010009]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. This one s/b removed. - Only 6 rcds now. 3-8	☐	☑	☐
530	**Rock Check Dam [6000406010010]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
540	**Rock Check Dam [6000406010011]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
550	**Rock Check Dam [6000406010012]** Control Measure is operating effectively? If "No"	☐	☐	☑

	describe condition & need for Maintenance, Repair, or Replacement.				
560	**Rock Check Dam [6000406010013]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				
570	**Rock Check Dam [6000406010014]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				
580	**Rock Check Dam [6000406010015]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				
590	**Rock Check Dam [6000406010016]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				
600	**Rock Check Dam [6000406010017]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				
610	**Rock Check Dam [6000406010018]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				
620	**Rock Check Dam [6000406010019]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				
630	**Rock Check Dam [6000406010020]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				
640	**Rock Check Dam [6000406010021]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				
650	**Rock Check Dam [6000406010022]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				
660	**Gabion [6000407010035]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				
670	**Gabion [6000407010036]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				
680	**Gabion [6000407010037]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				
690	**Gabion [6000407010038]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				
700	**Trench Drain [6000409040046]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				
710	**Drop inlet with filters [6000409020041]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				
720	**Drop Inlet with Petro-Plug [6000409010040]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				
730	**EnviroSoxx w/ MetalLoxx [6000403200049]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				
740	**EnviroSoxx w/ MetalLoxx [6000403200050]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				
750	**EnviroSoxx w/ MetalLoxx [6000403200051]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				
	Area/Activity exposed to stormwater (identify needed mainteance or a description of corrective actions in relevant task comment).				
770	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				
780	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.				
790	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.				
800	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.				
810	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe. metal NW Bay needs covered.				CAR #1546
820	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				
830	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				
840	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				
850	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.				

860	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
870	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
880	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
890	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☑	☐
900	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
910	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
920	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
930	**Sector P [60004-P]** Vehicle storage/maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
	Non-Compliance			
950	Free of incidents of observed non-compliance not already identified above? If "No" describe.	☐	☐	☑
	Additional Control Measures			
970	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.	☐	☐	☑

Labor

Labor	Work Date	Reg Hrs	OT Hrs	Other Hrs

Labor Report

Completed: _____

Report:

J. Burgin / Jillian Burgin 6/18/19 _____ _____

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, DESH Group Leader, EPC Group Leader)

Print name and title: Russell Stone GL DESH-UIS

Signature: Russell Stone Date: 7/16/2019

Los Alamos National Laboratory

Work Order MSGP-RI-63828
MSGP Routine Inspection
Printed 7/24/2019 - 4:57 PM

Maintenance Details

Requested: 7/24/2019 4:55:00 PM
Procedure: MSGP Routine Facility Inspection (EPC-CP-Form-1020.2)
Last PM: 6/18/2019
Project: Routine Facility Inspections July 2019 (P-MSGP-RI-5386)
Reason: 2019 July Inspections

Target: 7/31/2019
Priority/Type: / Inspection
Department: Utilities and Infrastructure

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

Contact:
Phone:

Insp. done
7/24/19
12:00 - 1100

Tasks

#	Description	Meas.	No	N/A	Yes
	Weather Information				
20	Describe the weather at time of inspection and document the temperature (F°).	77° 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 "No" has a CAR been previously initiated for this new discharge?		☐	☑	☐
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		☐	☐	☑
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		☐	☐	☑
	Outfall Inspection (identify 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? If "No", describe.		☐	☐	☑
100	**Monitored Outfall [022]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
110	**Monitored Outfall [022]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
120	**Monitored Outfall [022]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
130	**Substantially Identical Outfall [021]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
140	**Substantially Identical Outfall [021]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
150	**Substantially Identical Outfall [021]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
160	**Substantially Identical Outfall [021]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
170	**Substantially Identical Outfall [023]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
180	**Substantially Identical Outfall [023]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
190	**Substantially Identical Outfall [023]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
200	**Substantially Identical Outfall [023]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
210	**Substantially Identical Outfall [024]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
220	**Substantially Identical Outfall [024]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
230	**Substantially Identical Outfall [024]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
240	**Substantially Identical Outfall [024]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
250	**Substantially Identical Outfall [025]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
260	**Substantially Identical Outfall [025]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
270	**Substantially Identical Outfall [025]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
280	**Substantially Identical Outfall [025]** Free of any unauthorized non-stormwater discharges? If		☐	☐	☑

"No" describe.

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

300	**Asphalt Berm [6000403040027]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
310	**Asphalt Berm [6000403040028]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
320	**Asphalt Berm [6000403040029]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
330	**Asphalt Berm [6000403040047]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
340	**Gravel Bags [6000403100025]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
350	**Gravel Bags [6000403100026]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
360	**Concrete/Asphalt Channel/Swale [6000404020031]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
370	**Concrete/Asphalt Channel/Swale [6000404020032]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
380	**Rock Channel/Swale [6000404030001]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
390	**Rock Channel/Swale [6000404030023]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
400	**Rock Channel/Swale [6000404030043]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
410	**Rip Rap [6000404060002]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
420	**Rip Rap [6000404060039]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
430	**Earthen Channel/Swale [6000404010033]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
440	**Earthen Channel/Swale [6000404010034]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
450	**Gabion Swale [6000404090042]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
460	**Rock Check Dam [6000406010010]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
470	**Rock Check Dam [6000406010011]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
480	**Rock Check Dam [6000406010012]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
490	**Rock Check Dam [6000406010013]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
500	**Rock Check Dam [6000406010014]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
510	**Rock Check Dam [6000406010015]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
520	**Rock Check Dam [6000406010016]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
530	**Rock Check Dam [6000406010017]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
540	**Rock Check Dam [6000406010018]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
550	**Rock Check Dam [6000406010019]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
560	**Rock Check Dam [6000406010020]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
570	**Rock Check Dam [6000406010021]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
580	**Rock Check Dam [6000406010022]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
590	**Rock Check Dam [6000406010052]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
600	**Rock Check Dam [6000406010053]** Control Measure is operating effectively? If "No" describe		☐	☐	☑

	condition & need for Maintenance, Repair, or Replacement.				
610	**Rock Check Dam [6000406010054]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.			☑	
620	**Rock Check Dam [6000406010055]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.			☑	
630	**Rock Check Dam [6000406010056]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.			☑	
640	**Rock Check Dam [6000406010057]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.			☑	
650	**Rock Check Dam [6000406010058]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.			☑	
660	**Gabion [6000407010035]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.			☑	
670	**Gabion [6000407010036]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.			☑	
680	**Gabion [6000407010037]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.			☑	
690	**Gabion [6000407010038]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.			☑	
700	**Trench Drain [6000409040046]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.			☑	
710	**Drop inlet with filters [6000409020041]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.			☑	
720	**Drop Inlet with Petro-Plug [6000409010040]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.			☑	
730	**EnviroSoxx w/ MetalLoxx [6000403200049]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.			☑	
740	**EnviroSoxx w/ MetalLoxx [6000403200050]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.			☑	
750	**EnviroSoxx w/ MetalLoxx [6000403200051]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.			☑	
	Area/Activity exposed to stormwater (identify needed mainteance or a description of corrective actions in relevant task comment).				
770	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.			☑	
780	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.			☑	
790	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.			☑	
800	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.			☑	
810	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.			☑	
820	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe. Uncovered metal @ NW repair bay. CAR # 1569	☑			
830	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☑		
840	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.			☑ jb	
850	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.			☑	
860	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.			☑	
870	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.			☑	
880	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.			☑	
890	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.		☑		
900	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.			☑	
910	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.			☑	
920	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.			☑	
930	**Sector P [60004-P]** Vehicle storage/maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.			☑	

Non-Compliance

950 Free of incidents of observed non-compliance not already identified above? If "No" describe. ☐ ☐ ☑

Additional Control Measures

970 Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed. ☐ ☐ ☑

Labor Report

Completed: _____

Report: _____

Signature / Name	Date	Signature / Name	Date
J Bruggen, DEP ICISEC	7/24/19		

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, DESH Group Leader, EPC Group Leader)

Print name and title: Russell Stone DESH-UES

Signature: Russell Stone Date: 8/19/2019

Los Alamos National Laboratory

Work Order MSGP-RI-63908
MSGP Routine Inspection
Printed 8/13/2019 - 2:09 PM

Maintenance Details

Requested: 8/13/2019 2:04:21 PM
Procedure: MSGP Routine Facility Inspection (EPC-CP-Form-1020.2)
Last PM: 6/18/2019
Project: Routine Facility Inspections August 2019 (P-MSGP-RI-5393)
Reason: 2019 August Inspections

Target: 8/31/2019
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

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

Contact:
Phone:

Insp done
8/28/19
12:00 - 12:45 PM

Tasks

#	Description	Meas.	No	N/A	Yes
	Weather Information				
20	Describe the weather at time of inspection and document the temperature (F°).	80° Sunny	☐	☐	☑
	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 "No" has a CAR been previously initiated for this new discharge?		☐	☑	☐
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		☐	☐	☑
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		☐	☐	☑
	Outfall Inspection (identify 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? If "No", describe.		☐	☐	☑
100	**Monitored Outfall [022]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
110	**Monitored Outfall [022]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
120	**Monitored Outfall [022]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
130	**Substantially Identical Outfall [021]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
140	**Substantially Identical Outfall [021]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
150	**Substantially Identical Outfall [021]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
160	**Substantially Identical Outfall [021]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
170	**Substantially Identical Outfall [023]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
180	**Substantially Identical Outfall [023]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
190	**Substantially Identical Outfall [023]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
200	**Substantially Identical Outfall [023]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
210	**Substantially Identical Outfall [024]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
220	**Substantially Identical Outfall [024]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
230	**Substantially Identical Outfall [024]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
240	**Substantially Identical Outfall [024]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑

250	**Substantially Identical Outfall [025]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
260	**Substantially Identical Outfall [025]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
270	**Substantially Identical Outfall [025]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
280	**Substantially Identical Outfall [025]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑

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

300	**Asphalt Berm [6000403040027]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
310	**Asphalt Berm [6000403040028]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
320	**Asphalt Berm [6000403040029]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
330	**Asphalt Berm [6000403040047]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
340	**Gravel Bags [6000403100025]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
350	**Gravel Bags [6000403100026]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
360	**Concrete/Asphalt Channel/Swale [6000404020031]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
370	**Concrete/Asphalt Channel/Swale [6000404020032]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
380	**Rock Channel/Swale [6000404030001]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
390	**Rock Channel/Swale [6000404030023]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
400	**Rock Channel/Swale [6000404030043]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
410	**Rip Rap [6000404060002]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
420	**Rip Rap [6000404060039]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
430	**Earthen Channel/Swale [6000404010033]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
440	**Earthen Channel/Swale [6000404010034]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
450	**Gabion Swale [6000404090042]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
460	**Rock Check Dam [6000406010010]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
470	**Rock Check Dam [6000406010011]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
480	**Rock Check Dam [6000406010012]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
490	**Rock Check Dam [6000406010013]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
500	**Rock Check Dam [6000406010014]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
510	**Rock Check Dam [6000406010015]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
520	**Rock Check Dam [6000406010016]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
530	**Rock Check Dam [6000406010017]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
540	**Rock Check Dam [6000406010018]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
550	**Rock Check Dam [6000406010019]** Control Measure is operating effectively? If "No"		☐	☐	☑

	describe condition & need for Maintenance, Repair, or Replacement.				
560	**Rock Check Dam [6000406010020]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
570	**Rock Check Dam [6000406010021]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
580	**Rock Check Dam [6000406010022]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
590	**Rock Check Dam [6000406010052]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
600	**Rock Check Dam [6000406010053]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
610	**Rock Check Dam [6000406010054]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
620	**Rock Check Dam [6000406010055]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
630	**Rock Check Dam [6000406010056]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
640	**Rock Check Dam [6000406010057]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
650	**Rock Check Dam [6000406010058]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
660	**Gabion [6000407010035]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
670	**Gabion [6000407010036]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
680	**Gabion [6000407010037]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
690	**Gabion [6000407010038]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
700	**Trench Drain [6000409040046]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
710	**Drop inlet with filters [6000409020041]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
720	**Drop Inlet with Petro-Plug [6000409010040]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
730	**EnviroSoxx w/ MetalLoxx [6000403200049]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
740	**EnviroSoxx w/ MetalLoxx [6000403200050]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
750	**EnviroSoxx w/ MetalLoxx [6000403200051]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
	Area/Activity exposed to stormwater (identify needed mainteance or a description of corrective actions in relevant task comment).				
770	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
780	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
790	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
800	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
810	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
820	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
830	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.			☑	
840	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
850	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑

860	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
870	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
880	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
890	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☑	☐
900	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
910	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
920	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
930	**Sector P [60004-P]** Vehicle storage/maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
	Non-Compliance				
950	Free of incidents of observed non-compliance not already identified above? If "No" describe.		☐	☐	☑
	Additional Control Measures				
970	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.		☐	☐	☑

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Burgin, Jillian	8/13/2019 / 1				

Labor Report

Completed:

Report:

J Burgin / J. Burgin 8/28/19

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, DESH Group Leader, EPC Group Leader)

Print name and title: Russell Stone GL DESH-UTS

Signature: Russell Stone Date: 9/5/2019

Los Alamos National Laboratory

Work Order MSGP-RI-63944
MSGP Routine Inspection
Printed 9/13/2019 - 3:29 PM

Maintenance Details

Requested: 9/13/2019 3:21:11 PM
Procedure: MSGP Routine Facility Inspection (EPC-CP-Form-1020.2)
Last PM: 7/24/2019
Project: Routine Facility Inspections September 2019 (P-MSGP-RI-5401)
Reason: 2019 September Inspections

Target: 9/30/2019
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

emp done
9/24/19
12:00 - 12:45

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

Contact:
Phone:

Tasks

#	Description	Meas.	No	N/A	Yes
	Weather Information				
20	Describe the weather at time of inspection and document the temperature (F°).	73° Sunny	☐	☐	☑
	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 "No" has a CAR been previously initiated for this new discharge?		☐	☑	☐
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		☐	☑ JB	☑
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		☐	☐	☑
	Outfall Inspection (identify 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? If "No", describe.		☐	☐	☑
100	**Monitored Outfall [022]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
110	**Monitored Outfall [022]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
120	**Monitored Outfall [022]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
130	**Substantially Identical Outfall [021]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
140	**Substantially Identical Outfall [021]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
150	**Substantially Identical Outfall [021]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
160	**Substantially Identical Outfall [021]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
170	**Substantially Identical Outfall [023]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
180	**Substantially Identical Outfall [023]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
190	**Substantially Identical Outfall [023]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
200	**Substantially Identical Outfall [023]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
210	**Substantially Identical Outfall [024]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
220	**Substantially Identical Outfall [024]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
230	**Substantially Identical Outfall [024]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
240	**Substantially Identical Outfall [024]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
250	**Substantially Identical Outfall [025]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
260	**Substantially Identical Outfall [025]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
270	**Substantially Identical Outfall [025]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑

280	**Substantially Identical Outfall [025]** Free of any unauthorized non-stormwater discharges? If "No" describe.	☐	☐	☑

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

300	**Asphalt Berm [6000403040027]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
310	**Asphalt Berm [6000403040028]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
320	**Asphalt Berm [6000403040029]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
330	**Asphalt Berm [6000403040047]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
340	**Gravel Bags [6000403100025]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
350	**Gravel Bags [6000403100026]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
360	**Concrete/Asphalt Channel/Swale [6000404020031]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
370	**Concrete/Asphalt Channel/Swale [6000404020032]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
380	**Rock Channel/Swale [6000404030001]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
390	**Rock Channel/Swale [6000404030023]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
400	**Rock Channel/Swale [6000404030043]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
410	**Rip Rap [6000404060002]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
420	**Rip Rap [6000404060039]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
430	**Earthen Channel/Swale [6000404010033]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
440	**Earthen Channel/Swale [6000404010034]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
450	**Gabion Swale [6000404090042]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
460	**Rock Check Dam [6000406010010]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
470	**Rock Check Dam [6000406010011]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
480	**Rock Check Dam [6000406010012]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
490	**Rock Check Dam [6000406010013]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
500	**Rock Check Dam [6000406010014]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
510	**Rock Check Dam [6000406010015]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
520	**Rock Check Dam [6000406010016]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
530	**Rock Check Dam [6000406010017]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
540	**Rock Check Dam [6000406010018]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
550	**Rock Check Dam [6000406010019]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
560	**Rock Check Dam [6000406010020]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
570	**Rock Check Dam [6000406010021]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
580	**Rock Check Dam [6000406010022]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
590	**Rock Check Dam [6000406010052]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑

600	**Rock Check Dam [6000406010053]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
610	**Rock Check Dam [6000406010054]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
620	**Rock Check Dam [6000406010055]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
630	**Rock Check Dam [6000406010056]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
640	**Rock Check Dam [6000406010057]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
650	**Rock Check Dam [6000406010058]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
660	**Gabion [6000407010035]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
670	**Gabion [6000407010036]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
680	**Gabion [6000407010037]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
690	**Gabion [6000407010038]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
700	**Trench Drain [6000409040046]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
710	**Drop inlet with filters [6000409020041]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
720	**Drop Inlet with Petro-Plug [6000409010040]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
730	**EnviroSoxx w/ MetalLoxx [6000403200049]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
740	**EnviroSoxx w/ MetalLoxx [6000403200050]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
750	**EnviroSoxx w/ MetalLoxx [6000403200051]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑

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

770	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
780	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
790	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
800	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
810	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
820	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
830	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☑	☐
840	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
850	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
860	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
870	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
880	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
890	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☑	☐
900	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
910	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe. Need hlk @ upper E. Lot, outfall 22 + 24 (slope [illegible])	☑	☐	☐
920	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
930	**Sector P [60004-P]** Vehicle storage/maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑

CAR# jb 1612

Non-Compliance

950	Free of incidents of observed non-compliance not already identified above? If "No" describe.		☐	☐	☑

Additional Control Measures

970	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.		☐	☐	☑

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Burgin, Jillian	9/13/2019 / 1				

Labor Report

Completed: _____

Report:

J Burgin J. Burgin 9/26/19 _____ _____

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, DESH Group Leader, EPC Group Leader)

Print name and title: Russell Stone GL DESH-UIS

Signature: Russell Stone Date: 10/8/2019

Los Alamos National Laboratory

Work Order MSGP-RI-64030

MSGP Routine Inspection
Printed 10/14/2019 - 4:43 PM

Maintenance Details

Requested: 10/14/2019 4:41:47 PM
Procedure: MSGP Routine Facility Inspection (EPC-CP-Form-1020.2)
Last PM: 9/26/2019
Project: Routine Facility Inspections October 2019 (P-MSGP-RI-5410)
Reason: 2019 October Inspections

Target: 10/31/2019
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

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

Contact:
Phone:

Insp Done
10/30/19
12:00 - 12:30

Tasks

#	Description	Meas.	No	N/A	Yes
	Weather Information				
20	Describe the weather at time of inspection and document the temperature (F°).	27° Sunny Cold/Windy	☐	☐	☑
	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 "No" has a CAR been previously initiated for this new discharge?		☐	☑	☐
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		☐	☐	☑
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		☐	☐	☑
	Outfall Inspection (identify 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? If "No", describe.		☐	☐	☑
100	**Monitored Outfall [022]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
110	**Monitored Outfall [022]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
120	**Monitored Outfall [022]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
130	**Substantially Identical Outfall [021]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
140	**Substantially Identical Outfall [021]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
150	**Substantially Identical Outfall [021]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
160	**Substantially Identical Outfall [021]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
170	**Substantially Identical Outfall [023]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
180	**Substantially Identical Outfall [023]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
190	**Substantially Identical Outfall [023]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
200	**Substantially Identical Outfall [023]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
210	**Substantially Identical Outfall [024]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
220	**Substantially Identical Outfall [024]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
230	**Substantially Identical Outfall [024]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
240	**Substantially Identical Outfall [024]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
250	**Substantially Identical Outfall [025]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
260	**Substantially Identical Outfall [025]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
270	**Substantially Identical Outfall [025]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
280	**Substantially Identical Outfall [025]** Free of any unauthorized non-stormwater discharges? If "No"		☐	☐	☑

describe.

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

300	**Asphalt Berm [6000403040027]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
310	**Asphalt Berm [6000403040028]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
320	**Asphalt Berm [6000403040029]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
330	**Asphalt Berm [6000403040047]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
340	**Gravel Bags [6000403100025]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
350	**Gravel Bags [6000403100026]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
360	**Concrete/Asphalt Channel/Swale [6000404020031]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
370	**Concrete/Asphalt Channel/Swale [6000404020032]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
380	**Rock Channel/Swale [6000404030001]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
390	**Rock Channel/Swale [6000404030023]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
400	**Rock Channel/Swale [6000404030043]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
410	**Rip Rap [6000404060002]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
420	**Rip Rap [6000404060039]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
430	**Earthen Channel/Swale [6000404010033]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
440	**Earthen Channel/Swale [6000404010034]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
450	**Gabion Swale [6000404090042]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
460	**Rock Check Dam [6000406010010]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
470	**Rock Check Dam [6000406010011]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
480	**Rock Check Dam [6000406010012]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
490	**Rock Check Dam [6000406010013]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
500	**Rock Check Dam [6000406010014]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
510	**Rock Check Dam [6000406010015]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
520	**Rock Check Dam [6000406010016]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
530	**Rock Check Dam [6000406010017]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
540	**Rock Check Dam [6000406010018]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
550	**Rock Check Dam [6000406010019]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
560	**Rock Check Dam [6000406010020]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
570	**Rock Check Dam [6000406010021]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
580	**Rock Check Dam [6000406010022]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
590	**Rock Check Dam [6000406010052]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
600	**Rock Check Dam [6000406010053]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑

610	**Rock Check Dam [6000406010054]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
620	**Rock Check Dam [6000406010055]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
630	**Rock Check Dam [6000406010056]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
640	**Rock Check Dam [6000406010057]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
650	**Rock Check Dam [6000406010058]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
660	**Gabion [6000407010035]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
670	**Gabion [6000407010036]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
680	**Gabion [6000407010037]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
690	**Gabion [6000407010038]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
700	**Trench Drain [6000409040046]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
710	**Drop inlet with filters [6000409020041]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
720	**Drop Inlet with Petro-Plug [6000409010040]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
730	**EnviroSoxx w/ MetalLoxx [6000403200049]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
740	**EnviroSoxx w/ MetalLoxx [6000403200050]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
750	**EnviroSoxx w/ MetalLoxx [6000403200051]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
Area/Activity exposed to stormwater (identify needed mainteance or a description of corrective actions in relevant task comment).					
770	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
780	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
790	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
800	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
810	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
820	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
830	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☑	☐
840	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
850	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
860	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
870	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
880	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
890	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☑	☐
900	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
910	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
920	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
930	**Sector P [60004-P]** Vehicle storage/maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
Non-Compliance					
950	Free of incidents of observed non-compliance not already identified above? If "No" describe.		☑	☐	☐ jb

10/29/19 - CAR # 1635 Exceedance for Nitrite / Nitrate

Additional Control Measures

970 Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed. ☐ ☐ ☑

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Burgin, Jillian	10/14/2019 / 1				

Labor Report

Completed: ____________

Report:

J Burgin   J Burgin   10/30/19

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, DESH Group Leader, EPC Group Leader)

Print name and title: Russell Stone GL DESH-UTS

Signature: Russell Stone   Date: 11/8/2019

Los Alamos National Laboratory

Work Order MSGP-RI-64114
MSGP Routine Inspection
Printed 11/21/2019 - 2:53 PM

Maintenance Details

Requested: 11/21/2019 2:48:00 PM
Procedure: MSGP Routine Facility Inspection (EPC-CP-Form-1020.2)
Last PM: 9/26/2019
Project: Routine Facility Inspections November 2019 (P-MSGP-RI-5418)
Reason: 2019 November Inspections

Target: 11/30/2019
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

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

Contact:
Phone:

Insp. done
11/26/19
12:00 - 1:00

Tasks

#	Description	Meas.	No	N/A	Yes
	Weather Information				
20	Describe the weather at time of inspection and document the temperature (F°).	30 Windy Blowing Snow	☐	☐	☑
	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 "No" has a CAR been previously initiated for this new discharge?		☐	☑	☐
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		☐	☐	☑
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		☐	☐	☑
	Outfall Inspection (identify 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? If "No", describe.		☐	☐	☑
100	**Monitored Outfall [022]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
110	**Monitored Outfall [022]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
120	**Monitored Outfall [022]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
130	**Substantially Identical Outfall [021]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
140	**Substantially Identical Outfall [021]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
150	**Substantially Identical Outfall [021]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
160	**Substantially Identical Outfall [021]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
170	**Substantially Identical Outfall [023]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
180	**Substantially Identical Outfall [023]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
190	**Substantially Identical Outfall [023]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
200	**Substantially Identical Outfall [023]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
210	**Substantially Identical Outfall [024]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
220	**Substantially Identical Outfall [024]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
230	**Substantially Identical Outfall [024]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
240	**Substantially Identical Outfall [024]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑

250	**Substantially Identical Outfall [025]** Free of Evidence of Erosion? If "No", describe.		☐	☑
260	**Substantially Identical Outfall [025]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☑
270	**Substantially Identical Outfall [025]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☑
280	**Substantially Identical Outfall [025]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☑

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

300	**Asphalt Berm [6000403040027]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
310	**Asphalt Berm [6000403040028]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
320	**Asphalt Berm [6000403040029]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
330	**Asphalt Berm [6000403040047]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
340	**Gravel Bags [6000403100025]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
350	**Gravel Bags [6000403100026]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
360	**Concrete/Asphalt Channel/Swale [6000404020031]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
370	**Concrete/Asphalt Channel/Swale [6000404020032]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
380	**Rock Channel/Swale [6000404030001]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
390	**Rock Channel/Swale [6000404030023]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
400	**Rock Channel/Swale [6000404030043]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
410	**Rip Rap [6000404060002]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
420	**Rip Rap [6000404060039]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
430	**Earthen Channel/Swale [6000404010033]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
440	**Earthen Channel/Swale [6000404010034]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
450	**Gabion Swale [6000404090042]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
460	**Rock Check Dam [6000406010010]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
470	**Rock Check Dam [6000406010011]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
480	**Rock Check Dam [6000406010012]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
490	**Rock Check Dam [6000406010013]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
500	**Rock Check Dam [6000406010014]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
510	**Rock Check Dam [6000406010015]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
520	**Rock Check Dam [6000406010016]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
530	**Rock Check Dam [6000406010017]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
540	**Rock Check Dam [6000406010018]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☑
550	**Rock Check Dam [6000406010019]** Control Measure is operating effectively? If "No"		☐	☑

	describe condition & need for Maintenance, Repair, or Replacement.				
560	**Rock Check Dam [6000406010020]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
570	**Rock Check Dam [6000406010021]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
580	**Rock Check Dam [6000406010022]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
590	**Rock Check Dam [6000406010052]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
600	**Rock Check Dam [6000406010053]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
610	**Rock Check Dam [6000406010054]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
620	**Rock Check Dam [6000406010055]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
630	**Rock Check Dam [6000406010056]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
640	**Rock Check Dam [6000406010057]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
650	**Rock Check Dam [6000406010058]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
660	**Gabion [6000407010035]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
670	**Gabion [6000407010036]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
680	**Gabion [6000407010037]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
690	**Gabion [6000407010038]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
700	**Trench Drain [6000409040046]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
710	**Drop inlet with filters [6000409020041]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
720	**Drop Inlet with Petro-Plug [6000409010040]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
730	**EnviroSoxx w/ MetalLoxx [6000403200049]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
740	**EnviroSoxx w/ MetalLoxx [6000403200050]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
750	**EnviroSoxx w/ MetalLoxx [6000403200051]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				☑
Area/Activity exposed to stormwater (identify needed mainteance or a description of corrective actions in relevant task comment).					
770	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
780	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
790	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
800	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
810	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
820	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
830	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.			☑	
840	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑
850	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.				☑

860	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
870	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
880	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
890	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☑	☐
900	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
910	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
920	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
930	**Sector P [60004-P]** Vehicle storage/maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☑
	Non-Compliance				
950	Free of incidents of observed non-compliance not already identified above? If "No" describe.		☐	☐	☑
	Additional Control Measures				
970	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.		☐	☐	☑

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Burgin, Jillian	11/30/2019 / 1				

Labor Report

Completed: _____

Report:

J Burgin / J. Burgin 11/26/19 _____

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, DESH Group Leader, EPC Group Leader)

Print name and title: Russell Stone GL DESH - WTS

Signature: _____ Date: 12/6/2019

Los Alamos National Laboratory

Work Order MSGP-RI-64125
MSGP Routine Inspection
Printed 12/10/2019 - 10:01 AM

Maintenance Details

Requested: 12/10/2019 9:56:37 AM
Procedure: MSGP Routine Facility Inspection (EPC-CP-Form-1020.2)
Last PM: 11/26/2019
Project: Routine Facility Inspections December 2019 (P-MSGP-RI-5424)

Target: 12/31/2019
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

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

Contact:
Phone:

Reason: 2019 December Inspections

Tasks

#	Description	Meas.	No	N/A	Yes
	Weather Information				
20	Describe the weather at time of inspection and document the temperature (F°).	12:00pm Clear 33°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 "No" has a CAR been previously initiated for this new discharge?		☐	☑	☐
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		☐	☐	☑
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		☐	☐	☑
	Outfall Inspection (identify 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? If "No", describe.		☐	☐	☑
100	**Monitored Outfall [022]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
110	**Monitored Outfall [022]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
120	**Monitored Outfall [022]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
130	**Substantially Identical Outfall [021]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
140	**Substantially Identical Outfall [021]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
150	**Substantially Identical Outfall [021]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
160	**Substantially Identical Outfall [021]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
170	**Substantially Identical Outfall [023]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
180	**Substantially Identical Outfall [023]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
190	**Substantially Identical Outfall [023]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
200	**Substantially Identical Outfall [023]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
210	**Substantially Identical Outfall [024]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
220	**Substantially Identical Outfall [024]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
230	**Substantially Identical Outfall [024]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑
240	**Substantially Identical Outfall [024]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑
250	**Substantially Identical Outfall [025]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☑
260	**Substantially Identical Outfall [025]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☑
270	**Substantially Identical Outfall [025]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☑

280	**Substantially Identical Outfall [025]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☑

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

300	**Asphalt Berm [6000403040027]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
310	**Asphalt Berm [6000403040028]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
320	**Asphalt Berm [6000403040029]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
330	**Asphalt Berm [6000403040047]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
340	**Gravel Bags [6000403100025]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
350	**Gravel Bags [6000403100026]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
360	**Concrete/Asphalt Channel/Swale [6000404020031]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
370	**Concrete/Asphalt Channel/Swale [6000404020032]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
380	**Rock Channel/Swale [6000404030001]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
390	**Rock Channel/Swale [6000404030023]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
400	**Rock Channel/Swale [6000404030043]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
410	**Rip Rap [6000404060002]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
420	**Rip Rap [6000404060039]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
430	**Earthen Channel/Swale [6000404010033]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
440	**Earthen Channel/Swale [6000404010034]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
450	**Gabion Swale [6000404090042]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
460	**Rock Check Dam [6000406010010]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
470	**Rock Check Dam [6000406010011]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
480	**Rock Check Dam [6000406010012]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
490	**Rock Check Dam [6000406010013]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
500	**Rock Check Dam [6000406010014]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
510	**Rock Check Dam [6000406010015]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
520	**Rock Check Dam [6000406010016]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
530	**Rock Check Dam [6000406010017]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
540	**Rock Check Dam [6000406010018]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
550	**Rock Check Dam [6000406010019]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
560	**Rock Check Dam [6000406010020]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
570	**Rock Check Dam [6000406010021]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
580	**Rock Check Dam [6000406010022]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑
590	**Rock Check Dam [6000406010052]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☑

600	**Rock Check Dam [6000406010053]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
610	**Rock Check Dam [6000406010054]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
620	**Rock Check Dam [6000406010055]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
630	**Rock Check Dam [6000406010056]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
640	**Rock Check Dam [6000406010057]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
650	**Rock Check Dam [6000406010058]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
660	**Gabion [6000407010035]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
670	**Gabion [6000407010036]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
680	**Gabion [6000407010037]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
690	**Gabion [6000407010038]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
700	**Trench Drain [6000409040046]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
710	**Drop inlet with filters [6000409020041]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
720	**Drop Inlet with Petro-Plug [6000409010040]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
730	**EnviroSoxx w/ MetalLoxx [6000403200049]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
740	**EnviroSoxx w/ MetalLoxx [6000403200050]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
750	**EnviroSoxx w/ MetalLoxx [6000403200051]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	☐	☐	☑
Area/Activity exposed to stormwater (identify needed mainteance or a description of corrective actions in relevant task comment).				
770	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☑	☐	☐
780	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
790	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
800	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
810	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
820	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☑	☐	☐
830	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☑	☐	☐
840	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
850	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
860	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
870	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
880	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
890	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☑	☐
900	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
910	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑
920	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.	☑	☐	☐
930	**Sector P [60004-P]** Vehicle storage/maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	☐	☐	☑

Non-Compliance

950	Free of incidents of observed non-compliance not already identified above? If "No" describe.	☐	☐	☑

Additional Control Measures

970	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.	☐	☐	☑

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	12/10/2019 / 1				

Labor Report

Completed: ______________

Report:

MS [signature] — Signature / Name   12/18/19 — 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, DESH Group Leader, EPC Group Leader)

Print name and title: Russell Stone GL DESH-UIS

Signature: [signature] Date: 1/8/2020

CA#1: ~~West~~ North West of Building 60-0001 in Heavy Equip. Storage area; Several oil spills need to be cleaned-up CAR#1673 [initials] 12/18/19

CA#2 North West Corner of Building 60-0001 in front of roll-up doors a sheet of rusted steel needs to be placed under the current tarp that's there. CAR#1674 [initials] 12/18/19

CA#3 Oil spill by the refueling area needs to be cleaned-up CAR#1675 [initials] 12/18/19

CA#4 Fork lift on the east side of Building 60-0001 in the vehicle Maintenance Area is dripping oil and needs to be cleaned up CAR#1676 [initials] 12/18/19

CA#5 Wood bin on eastside of 60-0009 needs to be covered or hauled off CAR#1677 [initials] 12/18/19 (Lower Yard)

CAR#1678 [initials] 12/18/19 CA#6 Far east of the lower yard existing cover needs to be replaced

→ Over

CA #7: Metal roofing panels on the north end of the lower yard need to be placed in a metal recycle bin and covered. CAR # 1678 HSW 12/18/19

Attachment 8: **QUARTERLY VISUAL ASSESSMENTS**

Los Alamos
NATIONAL LABORATORY
EST. 1943

memorandum

Environmental Protection & Compliance Division
Compliance Programs Group

To: Jillian Burgin, DESH-UIS, B274
Thru: Terrill Lemke, EPC-CP, K490
From: Holly Wheeler, EPC-CP, K490
Phone: 505-667-1312
Symbol: EPC-DO: 19-201
Date: JUL 0 3 2019

Subject: National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR050013, Multi-Sector General Permit (MSGP) Quarterly Visual Assessment (QVA) Forms for April and May of 2019 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, Triad National Security, LLC (Triad) 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 contained in Attachment 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 Van Valkenburg, EPC-CP Group Leader
Los Alamos National Laboratory

Manager Signature — Date 7/3/19

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.

Facility Name	Sampling Station	Work Order #
TA-60-1 Heavy Equipment Yard	MSGP02201	MSGP-63610
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-63624
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-63625
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-63626
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-63627

TWL/HLW:jdm

Attachment(s): Attachment 1 Quarterly Visual Assessment Forms, First Quarter, 2019 Monitoring Year

Copy: Michael Hazen, ALDESHQSS, mhazen@lanl.gov, (E-File)
Terrill Lemke, EPC-CP, tlemke@lanl.gov, (E-File)
William Mairson, ALDESHQSS, wrmairson@lanl.gov, (E-File)
Russell Stone, DESH-UIS, rdstone@lanl.gov, (E-File)
Enrique Torres, EPC-DO, etorres@lanl.gov, (E-File)
Taunia Van Valkenburg, EPC-CP, tauniav@lanl.gov, (E-File)
adesh-records@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)

ATTACHMENT 1

Quarterly Visual Assessment Forms, First Quarter,
2019 Monitoring Year

EPC-DO: 19-201

Date: JUL 0 3 2019

Los Alamos National Laboratory

Work Order MSGP-63610
MSGP Monitoring Stations
Printed 5/21/2019 - 4:24 PM

Maintenance Details

Requested: 4/23/2019 3:16:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 4/23/2019
Project: Visual Assessments 4/1/2019 (P-MSGP-5366)
Reason: MSGP Quarterly Visual Assessment

Target: 5/31/2019
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

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

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 (e.g., Apr-May)	Apr-May	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/22/19 @ 22:02	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/22/19 @ 22:02	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/23/19 @ 10:26	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	rain 0.74	☐	☐	☑
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)	musty	☒	☐	☐
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).	slightly 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).	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').	on the surface	☒	☐	☐
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: 4/23/2019 10:26:00 AM

Report: Marwin Shendo

Signature / Name	Date	Signature / Name	Date
	4/26/2019		

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, DESH 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 Laboratory

Work Order MSGP-63624

MSGP Monitoring Stations
Printed 5/21/2019 - 4:24 PM

Maintenance Details

Requested: 4/23/2019 3:33:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 4/23/2019
Project: SIO Visual Assessments 4/1/19 (P-MSGP-5367)

Target: 5/31/2019
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:

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)	April-May	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/22/19 22:50	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/22/19 22:50	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/23/19 10:40	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain 0.74 inches	☐	☐	☑
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.	vegetation	☒	☐	☐
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	fine sediment	☒	☐	☐
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: 4/23/2019 10:40:00 AM

Report: Alethea Banar

4/23/2019

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, DESH 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 Laboratory

Work Order MSGP-63625

MSGP Monitoring Stations
Printed 5/21/2019 - 4:25 PM

Maintenance Details

Requested: 4/23/2019 3:33:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 4/23/2019
Project: SIO Visual Assessments 4/1/19 (P-MSGP-5367)

Target: 5/31/2019
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:

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)	April-May	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/22/19 22:50	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/22/19 22:50	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/23/19 10:36	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain 0.74 inches	☐	☐	☑
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.	vegetation	☒	☐	☐
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	fine sediment	☒	☐	☐
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: 4/23/2019 10:36:00 AM

Report: Alethea Banar

4/23/2019

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, DESH 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 Laboratory

Work Order MSGP-63626

MSGP Monitoring Stations
Printed 5/21/2019 - 4:25 PM

Maintenance Details

Requested: 4/23/2019 3:33:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 4/23/2019
Project: SIO Visual Assessments 4/1/19 (P-MSGP-5367)

Target: 5/31/2019
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:

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)	April-May	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/22/19 22:50	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/22/19 22:50	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/23/19	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain 0.74 inches	☐	☐	☑
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 tan	☒	☐	☐
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).	slightly cloudy	☒	☐	☐
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", provide description (e.g., fine, course).	fine and course sediment	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, course).	fine sediment	☒	☐	☐
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: 4/23/2019 10:20:00 AM

Report: Sample jar full of sediment and vegetation. Cleaned jar and took a sample from the pool directly upstream of sampler location.

Gravel bags at top of asphalt swale have evidence of begin over-topped with sediment laden water. No evidence of

sediment on the asphalt parking lot.

Alethea Banar

Signature / Name	Date	Signature / Name	Date
	4/23/2019		

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, DESH 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 Laboratory

Work Order MSGP-63627
MSGP Monitoring Stations
Printed 5/21/2019 - 4:26 PM (Duplicate Copy)

Maintenance Details

Requested: 4/23/2019 3:33:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 4/23/2019
Project: SIO Visual Assessments 4/1/19 (P-MSGP-5367)

Target: 5/31/2019
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:

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)	April-May	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/22/19 22:50	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/22/19 22:50	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/23/19 10:15	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain 0.74 inches	☐	☐	☑
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 tan	☒	☐	☐
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.	vegetation	☒	☐	☐
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	fine and course sediment	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, course).	fine sediment	☒	☐	☐
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: 4/23/2019 10:15:00 AM

Report: Alethea Banar

4/23/2019

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, DESH 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 LABORATORY
EST. 1943

memorandum

Environmental Protection & Compliance Division
Compliance Programs Group

To: Jillian Burgin, DESH-UIS, B274
Thru: Terrill Lemke, EPC-CP, K490
From: Holly Wheeler, EPC-CP, K490
Phone: 505-667-1312
Symbol: EPC-DO: 19-313
Date: SEP 0 3 2019

Subject: National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR050013, Multi-Sector General Permit (MSGP) Quarterly Visual Assessment (QVA) Forms for June and July of 2019 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, Triad National Security, LLC (Triad) 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 contained in Attachment 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 Van Valkenburg, EPC-CP Group Leader
Los Alamos National Laboratory

Manager Signature 9/3/2019 Date

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.

Facility Name	Sampling Station	Work Order #
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-63750
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-63751
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-63797
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-63798
TA-60-1 Heavy Equipment Yard	MSGP02201	MSGP-63802

TWL/HLW:jdm

Attachment(s): Attachment 1 Quarterly Visual Assessment Forms, Second Quarter, 2019 Monitoring Year

Copy: Michael Hazen, ALDESHQSS, mhazen@lanl.gov
William Mairson, ALDESHQSS, wrmairson@lanl.gov
Russell Stone, DESH-UIS, rdstone@lanl.gov
Enrique Torres, EPC-DO, etorres@lanl.gov
Jennifer Payne, EPC-DO, jpayne@lanl.gov
Taunia Van Valkenburg, EPC-CP, tauniav@lanl.gov
Terrill Lemke, EPC-CP, tlemke@lanl.gov
adesh-records@lanl.gov
epccorrespondence@lanl.gov

ATTACHMENT 1

Quarterly Visual Assessment Forms, Second Quarter,
2019 Monitoring Year

EPC-DO: 19-313

Date: SEP 0 3 2019

Los Alamos National Laboratory

Work Order MSGP-63750
MSGP Monitoring Stations
Printed 8/2/2019 - 4:42 PM

Maintenance Details

Requested By: Banar, Alethea on 6/17/2019 12:12:00 PM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 6/17/2019
Project: Visual Assessments 6/1/19 (P-MSGP-5378)

Target: 7/31/2019
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

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)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/15/19 17:40	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/15/19 17:40	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/17/19 10:32	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	rain 0.05 in.	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	yellow tint	☒	☐	☐
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.	yellow pollen and veg	☒	☐	☐
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	veg and fine sediment	☒	☐	☐
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: 6/17/2019 10:32:00 AM

Report: Alethea Banar

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, DESH 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 Laboratory

Work Order MSGP-63751
MSGP Monitoring Stations
Printed 8/2/2019 - 4:44 PM

Maintenance Details

Requested By: Banar, Alethea on 6/17/2019 12:13:00 PM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 6/17/2019
Project: Visual Assessments 6/1/19 (P-MSGP-5378)

Target: 7/31/2019
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

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)		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/15/19 17:40	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/15/19 17:40	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	6/17/19 10:20	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	rain 0.05 in.	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	yellow tint	☒	☐	☐
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.	yellow pollen	☒	☐	☐
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	med. sediment	☒	☐	☐
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: 6/17/2019 10:20:00 AM

Report: Alethea Banar

6/17/2019

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, DESH 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 Laboratory

Work Order MSGP-63797
MSGP Monitoring Stations
Printed 8/2/2019 - 4:44 PM

Maintenance Details

Requested By: Banar, Alethea on 7/2/2019 3:25:00 PM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/2/2019
Project: Visual Assessments 6/1/19 (P-MSGP-5378)

Target: 7/31/2019
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

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)	June-July	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/2/19 12:45	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/2/19 12:45	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/2/19 14:40	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	rain 0.24 inch	☐	☐	☑
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.	veg and yellow pollen	☒	☐	☐
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	fine sediment	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, course).	fine sediment	☒	☐	☐
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: 7/2/2019 2:40:00 PM

Report: Yellow-brown foam observed in pools appears to be pollen.

Alethea Banar

	7/2/2019		
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, DESH 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 Laboratory

Work Order MSGP-63798
MSGP Monitoring Stations
Printed 8/2/2019 - 4:43 PM

Maintenance Details

Requested By: Banar, Alethea on 7/2/2019 3:29:00 PM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/2/2019
Project: Visual Assessments 6/1/19 (P-MSGP-5378)
Reason: MSGP Quarterly Visual Assessment

Target: 7/31/2019
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

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)	June-July	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/2/19 12:45	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/2/19 12:45	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/2/19 14:50	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	rain 0.24 inch	☐	☐	☑
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.	veg and yellow pollen	☒	☐	☐
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	fine sediment	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, course).	fine sediment	☒	☐	☐
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: 7/2/2019 2:50:00 PM

Report: Alethea Banar

7/2/2019

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, DESH 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 Laboratory

Work Order MSGP-63802
MSGP Monitoring Stations
Printed 8/2/2019 - 4:42 PM

Maintenance Details

Requested By: Banar, Alethea on 7/2/2019 5:16:00 PM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/2/2019
Project: Visual Assessments 6/1/19 (P-MSGP-5378)

Target: 7/31/2019
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

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)	jun-july	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/2/19 13:49	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/2/19 13:49	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/2/19 1540	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	rain 0.25 inch	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	brwon	☒	☐	☐
120	Is sample oderless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)	musty	☒	☐	☐
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).		☐	☐	☑
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: 7/2/2019 3:40:00 PM

Report: Marwin Shendo

7/3/2019

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, DESH 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 LABORATORY
EST. 1943

memorandum

Environmental Protection & Compliance Division
Compliance Programs Group

To: Jillian Burgin, DESH-UIS, B274
Thru: Terrill Lemke, EPC-CP, K490
From: Holly Wheeler, EPC-CP, K490
Phone: 505-667-1312
Symbol: EPC-DO: 19-380
Date: NOV 2 6 2019

Subject: National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR050013, Multi-Sector General Permit (MSGP) Quarterly Visual Assessment (QVA) Forms for August and September of 2019 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, Triad National Security, LLC (Triad) has designated the following MSGP monitoring quarters.

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

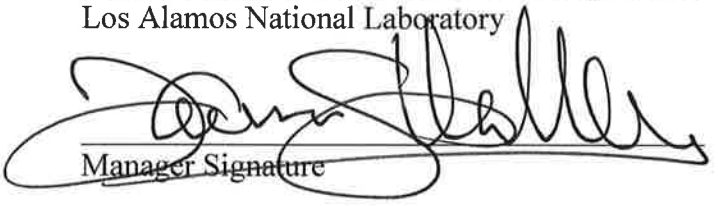
The attached QVA forms document the following information required by Part 3.2.2 of the 2015 MSGP and were completed by Environmental Compliance Programs (EPC-CP) personnel.

- 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 contained in Attachment 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 Van Valkenburg, EPC-CP Group Leader
Los Alamos National Laboratory



Manager Signature

11/25/19
Date

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.

Facility Name	Sampling Station	Work Order #
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-63845
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-63863
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-63885
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-63886
TA-60-1 Heavy Equipment Yard	MSGP02201	MSGP-63889

TWL/HLW:jdm

Attachment(s): Attachment 1 Quarterly Visual Assessment Forms, Third Quarter, 2019 Monitoring Year

Copy: Michael Hazen, ALDESHQSS, mhazen@lanl.gov
William Mairson, ALDESHQSS, wrmairson@lanl.gov
Enrique Torres, EPC-DO, etorres@lanl.gov
Jennifer Payne, EPC-DO, jpayne@lanl.gov
Russell Stone, DESH-UIS, rdstone@lanl.gov
Taunia Van Valkenburg, EPC-CP, tauniav@lanl.gov
epccorrespondence@lanl.gov
adesh-records@lanl.gov

ATTACHMENT 1

Quarterly Visual Assessment Forms, Third Quarter,
2019 Monitoring Year

EPC-DO: 19-380

Date: NOV 2 6 2019

Los Alamos National Laboratory

Work Order MSGP-63845
MSGP Monitoring Stations
Printed 8/21/2019 - 9:15 AM (Duplicate Copy)

Maintenance Details

Requested: 7/31/2019 3:59:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/2/2019
Project: Visual Assessments 8/1/19 (P-MSGP-5390)

Target: 9/30/2019
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

Reason: MSGP Quarterly Visual Assessment

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 (e.g., Apr-May)	Aug-Sept	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/2/19 11:35	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/2/19 11:35	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/2/19 14:35	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	rain 0.03 in.	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	yellow	☒	☐	☐
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).	slightly 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).	fine and med. sediment	☒	☐	☐
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: 8/2/2019 2:35:00 PM

Report: Alethea Banar

8/5/2019

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, DESH 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 Laboratory

Work Order MSGP-63863
MSGP Monitoring Stations
Printed 8/21/2019 - 9:16 AM

Maintenance Details

Requested By: Banar, Alethea on 8/7/2019 5:16:00 PM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/7/2019
Project: Visual Assessments 8/1/19 (P-MSGP-5390)
Reason: MSGP Quarterly Visual Assessment

Target: 8/16/2019
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

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-Sept	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/7/19 13:10	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/7/19 13:10	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/7/19 15:45	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	rain 0.71 inch	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	yellow	☒	☐	☐
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.	vegetation	☒	☐	☐
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	fine and course sediemnts	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, course).	fine sediment	☒	☐	☐
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: 8/7/2019 3:45:00 PM

Report: Alethea Banar

Signature / Name	Date	Signature / Name	Date
Alethea Banar	8/8/2019		

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, DESH 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 Laboratory

Work Order MSGP-63885
MSGP Monitoring Stations
Printed 8/21/2019 - 9:13 AM

Maintenance Details

Requested By: Banar, Alethea on 8/7/2019 5:00:00 PM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/7/2019
Project: Visual Assessments 8/1/19 (P-MSGP-5390)

Target: 9/30/2019
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

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-Sept	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/7/19 13:10	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/7/19 13:10	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/7/19 16:10	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	rain 0.71 inch	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	slight yellow color	☒	☐	☐
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.	vegetation	☒	☐	☐
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	fine sediment	☒	☐	☐
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: 8/7/2019 4:10:00 PM

Report: Alethea Banar

8/8/2019

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, DESH 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 Laboratory

Work Order MSGP-63886
MSGP Monitoring Stations
Printed 8/21/2019 - 9:14 AM

Maintenance Details

Requested By: Banar, Alethea on 8/7/2019 5:05:00 PM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/7/2019
Project: Visual Assessments 8/1/19 (P-MSGP-5390)

Target: 9/30/2019
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

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-Sept	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/7/19 13:10	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/7/19 13:10	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/7/19 15:58	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	rain 0.71 inch	☐	☐	☑
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).	slightly cloudy	☒	☐	☐
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", provide description (e.g., fine, course).	fine sediment	☒	☐	☐
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: 8/7/2019 3:58:00 PM

Report: Alethea Banar

8/8/2019

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, DESH 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 Laboratory

Work Order MSGP-63889
MSGP Monitoring Stations
Printed 8/21/2019 - 9:13 AM

Maintenance Details

Requested By: Dale, Leslie on 8/8/2019 10:02:00 AM
Taken By: Dale, Leslie
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/7/2019
Project: Visual Assessments 8/1/19 (P-MSGP-5390)

Target: 9/30/2019
Priority/Type: / Inspection
Department: Utilities and Infrastructure

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

Contact: Dale, Leslie
Phone:

Reason: MSGP Quarterly Visual Assessment

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-Sept	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/6/19, 1618	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/6/19, 1618	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/7/19, 1500	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL 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 a reason.		☐	☐	☑
Parameters					
110	Is sample colorless? If "Failed", describe.	Dark 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: 8/7/2019 3:00:00 PM

Report: Antonio Trujillo

8/14/2019

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, DESH 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 LABORATORY
EST. 1943

memorandum

Environmental Protection & Compliance Division
Compliance Programs Group

To: Russell Stone, DESH-UIS, K760
Thru: Terrill Lemke, EPC-DO, K490 TL
From: Holly Wheeler, EPC-CP, K490 HW
Phone: 505-667-1312
Symbol: EPC-DO: 19-457
Date: JAN 10 2020

Subject: National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR050013, Multi-Sector General Permit (MSGP) Quarterly Visual Assessment (QVA) Forms for October and November of 2019 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, Triad National Security, LLC (Triad) 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 contained in Attachment 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 Van Valkenburg, EPC-CP Group Leader
Los Alamos National Laboratory

Manager Signature

1/10/20
Date

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.

Facility Name	Sampling Station	Work Order #
TA-60-1 Heavy Equipment Yard	MSGP02201	MSGP-64002
TA-60-1 Heavy Equipment Yard	MSGP02501	MSGP-64038
TA-60-1 Heavy Equipment Yard	MSGP02401	MSGP-64039
TA-60-1 Heavy Equipment Yard	MSGP02301	MSGP-64040
TA-60-1 Heavy Equipment Yard	MSGP02101	MSGP-64041

TWL/HLW:jdm

Attachment(s): Attachment 1 Quarterly Visual Assessment Forms, Fourth Quarter, 2019 Monitoring Year

Copy: Michael Hazen, ALDESHQSS, mhazen@lanl.gov
William Mairson, ALDESHQSS, wrmairson@lanl.gov
Enrique Torres, EWP, etorres@lanl.gov
Jennifer Payne, EPC-DO, jpayne@lanl.gov
Taunia Van Valkenburg, EPC-CP, tauniav@lanl.gov
Terrill Lemke, EPC-CP, tlemke@lanl.gov
epccorresondence@lanl.gov
adesh-records@lanl.gov

ATTACHMENT 1

Quarterly Visual Assessment Forms, Fourth Quarter,
2019 Monitoring Year

EPC-DO: 19-457

Date: JAN 10 2020

Los Alamos National Laboratory

Work Order MSGP-64002

MSGP Monitoring Stations
Printed 10/28/2019 - 2:37 PM

Maintenance Details

Requested: 10/7/2019 10:14:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 10/4/2019
Project: Visual Assessments 10/1/19 (P-MSGP-5407)
Reason: MSGP Quarterly Visual Assessment

Target: 11/30/2019
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

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

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 (e.g., Apr-May)	oct-nov	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/19 04:55	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/19 04:55	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/19 10:21	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	rain .49	☐	☐	☑
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)	musty	☒	☐	☐
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).	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').	on the surface	☒	☐	☐
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: 10/4/2019 10:21:00 AM

Report: Marwin Shendo

Signature / Name	Date	Signature / Name	Date
MSLO	10/9/2019		

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, DESH 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 Laboratory

Work Order MSGP-64038

MSGP Monitoring Stations
Printed 10/28/2019 - 2:42 PM

Maintenance Details

Requested By: Banar, Alethea on 10/16/2019 10:35:00 AM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 10/7/2019
Project: Visual Assessments 10/1/19 (P-MSGP-5407)
Reason: MSGP Quarterly Visual Assessment

Target: 11/30/2019
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

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	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/19 11:05	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/19 11:05	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/7/19 14:29	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain 0.61 in	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Yellow	☒	☐	☐
120	Is sample oderless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)	Musty	☒	☐	☐
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).	Slightly opaque	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Pollen	☒	☐	☐
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course). **Comments: Jar 1/2 full of sediment**	Fine and course sediment	☒	☐	☐
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: 10/7/2019 2:29:00 PM

Report: Alethea Banar

Signature / Name	Date	Signature / Name	Date
	10/16/2019		

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, DESH 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 Laboratory

Work Order MSGP-64039
MSGP Monitoring Stations
Printed 10/28/2019 - 2:42 PM

Maintenance Details

Requested By: Banar, Alethea on 10/16/2019 10:54:00 AM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 10/7/2019
Project: Visual Assessments 10/1/19 (P-MSGP-5407)
Reason: MSGP Quarterly Visual Assessment

Target: 11/30/2019
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

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	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/19 11:05	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/19 11:05	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/7/19 14:32	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain 0.61 in	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Yellow	☒	☐	☐
120	Is sample oderless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)	Musty	☒	☐	☐
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.	Pollen	☒	☐	☐
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	Fine sediment	☒	☐	☐
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: 10/7/2019 2:32:00 PM

Report: Alethea Banar

Signature / Name	Date	Signature / Name	Date
Alethea Banar	10/16/2019		

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, DESH 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 Laboratory

Work Order MSGP-64040
MSGP Monitoring Stations
Printed 10/28/2019 - 2:41 PM

Maintenance Details

Requested By: Banar, Alethea on 10/16/2019 10:55:00 AM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 10/7/2019
Project: Visual Assessments 10/1/19 (P-MSGP-5407)
Reason: MSGP Quarterly Visual Assessment

Target: 11/30/2019
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

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	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/19 11:05	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/19 11:05	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/7/19 14:43	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain 0.61 in	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Grey	☒	☐	☐
120	Is sample oderless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)	Musty	☒	☐	☐
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).	Fine sediment	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, course).	Fine sediment	☒	☐	☐
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: 10/7/2019 2:43:00 PM

Report: Alethea Banar

Signature / Name	Date	Signature / Name	Date
Alethea Banar	10/16/2019		

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, DESH 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 Laboratory

Work Order MSGP-64041
MSGP Monitoring Stations
Printed 10/28/2019 - 2:39 PM

Maintenance Details

Requested By: Banar, Alethea on 10/16/2019 10:56:00 AM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 10/7/2019
Project: Visual Assessments 10/1/19 (P-MSGP-5407)

Target: 11/30/2019
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

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	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/19 11:05	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/4/19 11:05	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/7/19 14:53	☐	☐	☑
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain 0.61 in	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☑
	Parameters				
110	Is sample colorless? If "Failed", describe.	Slight yellow	☒	☐	☐
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.	Pollen	☒	☐	☐
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).	Fine and course sediment	☒	☐	☐
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: 10/7/2019 2:53:00 PM

Report: Alethea Banar

10/16/2019			
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, DESH Group Leader, EPC Group Leader)

Print name and title: Taunia Van Valkenburg, EPC-CP Group Leader

Signature: (See signature on file) Date:

Attachment 9: **CORRECTIVE ACTION DOCUMENTATION AND CERTIFICATION**

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:** GL DESH-UIS

Signature: Russell Stone **Date:** 1/22/2019

CAR #	FOD	MSGP Facility Desc	Inspection Date	Specific Location	CA Report Status	Finding	Finding Other Desc	Problem Description	Inspection Type	Inspection Type Other	Corrective Action Description	SIO	SIO Affected	Provide Action Taken at Affected SIOs	Is SWPPP Modification Required?	CA Initiate Date	CA Complete Date	Completed	CA Expected Date	CA Status Desc	EPA Notified Date (if 45 day time frame is exceeded.)
1454	UI	TA-60-1 Heavy Equipment Yard	12/19/2018 13:30	TA-60-1, lower yard north of structure # 60-0069.	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	Within the lower east yard at the TA-60-1 Heavy Equipment Yard, leftover ducting and straps were abandoned outside with no controls in place. Housekeeping issue.	Routine facility inspection	-	Determine if the leftover ducting and straps are usable. If not, dispose of, or recycle them. The current disposition of this material outside of a shed without controls is a housekeeping issue.	N	-	-	N	-	-	N	1/2/2019 17:00	Determine if the leftover ducting and staps are usable. If not, dispose of, or recycle them. The current disposition of this material outside of a shed without controls is a housekeeping issue.	-
1453	UI	TA-60-1 Heavy Equipment Yard	12/19/2018 13:30	East of TA-60-1 in the southern portion of the yard.	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	East of the TA-60-1, at the souther part of the upper yard, several broken solar panels are being stored outside.	Routine facility inspection	-	Salvage or dispose of the solar panels to prevent housekeeping issue.	N	-	-	N	-	-	N	1/2/2019 17:00	Salvage or dispose of the solar panels to prevent housekeeping issue.	-
1452	UI	TA-60-1 Heavy Equipment Yard	12/19/2018 13:30	Throughout the yard east of TA-60-1.	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	There are several pieces of metal for fabrication and old pieces of equipment that are rusting and not covered. Specific equipment and locations are as follows: Tail gate and apron in the lower east yard; a rusted metal beam at the same general location; and metal mesh, diamond steel and steel sheets in the central portion of the lower east yard.	Routine facility inspection	-	Cover all equipment and metal identified above, move it inside a building, or salvage it.	Y	23	If the material and equipment is salvaged, stored inside a building or covered, it will minimize potential pollutant migration in stormwater.	N	-	-	N	1/2/2019 17:00	Cover all equipment and metal identified above, move it inside a building, or salvage it.	-
1451	UI	TA-60-1 Heavy Equipment Yard	12/19/2018 13:30	Southeast side of the TA-60-1 Heavy Equipment Yard.	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	On the east side of the TA-60-1, Heavy Equipment Yard, tires are being stockpiled outside with no stormwater controls in place.	Routine facility inspection	-	Store the tires under cover, salvage, recycle or dispose of them off-site.	N	-	-	N	-	-	N	1/2/2019 17:00	Store the tires under cover, salvage, recycle or dispose of them off-site.	-
1450	UI	TA-60-1 Heavy Equipment Yard	12/19/2018 13:40	Bare soil area at the far west portion of TA-60 HEY south of Maniac Road.	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	At the far northwest corner of the TA-60-1 Heavy Equipment Yard, stormwater is sheet flowing off the asphalt private vehicle parking area and causing erosion to the soil between there and Maniac Road.	Routine facility inspection	-	Stabilize the eroding areas.	Y	024, and 025	Stabilization of the eroded areas will be sufficient to address sediment migration to outfalls 024 and 025.	Y	-	-	N	1/2/2019 17:00	Stabilize the eroding areas. DEP walked down the area with Roads & Grounds on 12/20/18. R&G will regrade area and stabilize with asphalt millings until the area is paved later in the year. The lab was closed for Christmas Break from 12/21/18-1/04/19 (with snow days on 1/2 & 1/3). There is currently over 2-3ft of snow in the area and work won't be able to be done until snow is removed or melted.	-

1449	UI	TA-60-1 Heavy Equipment Yard	12/19/2018 13:20	Several metal storage racks east of TA-60-1 and one west.	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	At several locations within the TA-60-1 Heavy Equipment Yard, either metal storage racks are not covered, the existing cover needs to be replaced or metal is stored near the rack that needs to be moved off the ground and be covered. Specific locations include: north of structure TA-60-330; blade storage area on the north side of the lower east yard; far east end of lower east yard; between trailers TA-60-008 and 009; and the west side of TA-60-1 (center area).	Routine facility inspection	-	Cover the metal storage racks or replace torn covers. Pick metal up off the ground and cover it or move it inside.	Y	021, 022, 023 and 024	If metal is covered, removed or moved inside, at the above specified locations, it will minimize exposure of pollutants at these locations.	N	-	-	N	1/2/2019 17:00	Cover the metal storage racks or replace torn covers. Pick metal up off the ground and cover it or move it inside.	-
1448	UI	TA-60-1 Heavy Equipment Yard	12/19/2018 13:20	West of TA-60-1 by the roll-up doors.	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	Steel, for fabrication of ladder racks, was stored outside west of TA-60-1 without being covered.	Routine facility inspection	-	Store the steel material (for fabrication) inside the building or cover it.	Y	24	If the steel is moved inside the building, it will not affect outfall 024. If the material remains outside, it must be covered to minimize exposure of pollutants to outfall 024.	Y	-	-	N	1/2/2019 0:00	Store the steel material (for fabrication) inside the building or cover it.	-
1447	UI	TA-60-1 Heavy Equipment Yard	12/19/2018 13:20	Lower yard at the TA-60-1 Heavy Equipment Yard.	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	Three roll-off bins were not covered. Two were located in the lower yard and one was in the paved area east of TA-60-1.	Routine facility inspection	-	Cover the roll-off bins.	N	-	-	N	-	-	N	1/2/2019 17:00	Cover the roll-off bins.	-
1446	UI	TA-60-1 Heavy Equipment Yard	12/19/2018 13:20	East and West side of TA-60 Building 1.	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	Three small green containers storing metal for recycle were not covered. Two containers were on the east side of TA-60-1 and one was on the west side.	Routine facility inspection	-	Cover the green containers holding air filters and other metal for recycle.	N	-	-	N	12/19/2018 15:00	12/19/2018 16:00	Y	-	Cover the green containers holding air filters and other metal for recycle. Bins were covered 12/19/18.	-
1445	UI	TA-60-1 Heavy Equipment Yard	12/19/2018 13:20	NE corner outside of TA-60-1 between the roll-up doors and trench drain.	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	Outside, at the northeast corner of TA-60-1, a rusted tailgate and apron from a truck getting serviced (inside the bay) were stored uncovered. In addition, a rusted piece of steel and two water pumps for fire trucks (waiting to be sent off-site for reconditioning) were also stored in the same location without cover.	Routine facility inspection	-	Place the pumps, piece of steel, tailgate and apron inside or cover them, if left outside.	N	-	-	N	12/19/2018 15:00	12/19/2018 16:00	Y	-	Place the pumps, piece of steel, tailgate and apron inside or cover them, if left outside. Items were removed or covered 12/19/18.	-

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:** EST Group Leader

Signature: Russell Stone **Date:** 2/5/2020

CAR #	FOD	MSGP Facility Desc	Inspection Date	Specific Location	Inspector Name	Identifying Name	CA Report Status	Finding	Finding Other Desc	Problem Description	Inspection Type	Inspection Type Other	Corrective Action Description	SIO	SIO Affected	Provide Action Taken at Affected SIOs	Swppp Modify	CA Initiate Date	CA Complete Date	Completed	CA Expected Date	CA Status Desc	EPA Notified Date
1679	UI	TA-60-1 Heavy Equipment Yard	12/18/2019 12:00	Far east end of the lower yard at the TA-60 Heavy Equipment Yard	SHENDO MARWIN P	SHENDO MARWIN P	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	At the far east end on the lower yard at the TA-60 Heavy Equipment Yard, existing cover needs to be replaced on several pieces of equipment, metal, etc.	Routine facility inspection	-	Replace the cover on the equipment, metal, etc. at the far east end of the lower yard.	Y	23	Only applicable to outfall 023.	N	-	-	N	12/24/2019 17:00	N/A	-
1678	UI	TA-60-1 Heavy Equipment Yard	12/18/2019 12:00	North end of the lower yard at the TA-60 Heavy Equipment Yard	SHENDO MARWIN P	SHENDO MARWIN P	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	At the north end of the lower yard at the TA-60 Heavy Equipment Yard, metal roofing panels need to be placed in the metal for recycle bin and covered.	Routine facility inspection	-	Place metal roofing panels in the metal for recycle roll-off bin and cover it.	N	-	-	N	-	-	N	12/24/2019 17:00	N/A	-
1677	UI	TA-60-1 Heavy Equipment Yard	12/18/2019 12:00	East of structure 60-0009 in the lower yard at the TA-60 Heavy Equipment Yard	SHENDO MARWIN P	SHENDO MARWIN P	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	At the TA-60 Heavy Equipment Yard, there is a roll-off bin containing wood that is not covered.	Routine facility inspection	-	Cover the roll-off bin containing wood or ship it off.	N	-	-	N	-	-	N	12/24/2019 17:00	N/A	-
1676	UI	TA-60-1 Heavy Equipment Yard	12/18/2019 12:00	Vehicle maintenance area of the east side of TA-60-0001	SHENDO MARWIN P	SHENDO MARWIN P	A new corrective action	Unauthorized release or discharge	-	At the TA-60-0001 Heavy Equipment Yard, a forklift was dripping oil on the asphalt in the vehicle maintenance area.	Routine facility inspection	-	The spilled oil was cleaned up..	N	-	-	N	12/18/2019 12:52	12/19/2019 12:00	Y	-	N/A	-
1675	UI	TA-60-1 Heavy Equipment Yard	12/18/2019 12:00	By the refueling area at the TA-60-0001 Heavy Equipment Yard	SHENDO MARWIN P	SHENDO MARWIN P	A new corrective action	Unauthorized release or discharge	-	By the refueling area at the TA-60-0001 Heavy Equipment Yard, oil was spilled on the asphalt and needs to be cleaned up.	Routine facility inspection	-	The oil spill on asphalt by the refueling area was cleaned up.	N	-	-	Y	12/18/2019 12:52	12/19/2019 12:00	Y	-	N/A	-
1674	UI	TA-60-1 Heavy Equipment Yard	12/18/2019 12:00	NW corner of Building 60-0001	SHENDO MARWIN P	SHENDO MARWIN P	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	At the TA-60-0001 Heavy Equipment Yard, NW of the building by the roll up doors, raw material (a sheet of rusted metal) was stored outside without being covered.	Routine facility inspection	-	Cover the rusted sheet of metal or move it inside.	Y	24	Only applicable to outfall 024.	N	-	-	N	12/24/2019 17:00	N/A	-
1673	UI	TA-60-1 Heavy Equipment Yard	12/18/2019 12:00	NW of Building 60-001 in the Heavy Equipment Storage area	SHENDO MARWIN P	SHENDO MARWIN P	A new corrective action	Unauthorized release or discharge	-	At the TA-60-0001 Heavy Equipment Yard, NW of the building there were several oil spills that need to be cleaned up.	Routine facility inspection	-	The oil spills NW of TA-60-0001 were cleaned up.	Y	025 and possibly 024	If the spills are cleaned up and/or sprayed with Micro-Blaze, this will prevent pollutant migration to either outfall, provided the locations are evaluated during storm events to ensure actions was adequate.	N	12/18/2019 12:52	12/19/2019 12:00	Y	-	N/A	-
1654	UI	TA-60-1 Heavy Equipment Yard	11/25/2019 11:00	West Parking Lot	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Unauthorized release or discharge	-	A Bearcat GOV was being brought into Heavy Equipment for repairs when it sprayed approximately 1-2 gals of deisel fuel onto the asphalt of the west parking lot.	Other (describe) :	Facility Reported	The truck was immediately taken into the shop for repairs. The impacted area was treated with absorbent and Microblaze. The spill occurred directly in front of the main entrance and west parking lot of the shop. It did not leave the site or impact a storm drain or outfall.	Y	24	024 not directly impacted but receives drainage for the area.	Y	11/25/2019 11:00	11/25/2019 12:00	Y	-	N/A	-
1641	UI	TA-60-1 Heavy Equipment Yard	11/18/2019 8:00	TA-60-1 Upper East Lot Repair Bay	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Unauthorized release or discharge	-	Approximately 1 gallon of hydraulic fluid was released from a forklift awaiting repairs . The spill pan placed under the forklift to contain any drips overflowed over the weekend, spilling approximately one gallon.	Other (describe) :	Facility Reported	Heavy Equipment personnel responded to the leak this morning when discovered and applied absorbent material and sprayed with Micro-Blaze. The spill did not leave the parking lot, did not reach a watercourse or adversely impact any SWMUs or AOCs and pursuant to 20.6.2.1203 does not meet external reporting requirements.	N	-	-	Y	11/18/2019 8:00	11/18/2019 12:00	Y	-	-	-
1635	UI	TA-60-1 Heavy Equipment Yard	10/29/2019 17:11	Outfall 022 at the TA-60-1 Heavy Equipment Yard	WHEELER HOLLY L	WHEELER HOLLY L	A new corrective action	Average benchmark value exceedance	-	The average concentration of Nitrate plus Nitrite Nitrogen discharged from outfall 022 at the TA-60-1 Heavy Equipment Yard was mathematically certain to exceed the benchmark value. This average was calculated from monitoring results associated with storm events occurring on 04/22/2019, 07/02/2019 and 08/06/2019 and individual analytical results of 1.48 mg/L, 0.74 mg/L and 1.17 mg/L. The average was 0.85 mg/L. The benchmark value is 0.68 mg/L.	Benchmark monitoring	-	Personnel shall evaluate potential pollutant sources of Nitrate plus Nitrite Nitgrogen and implement additional controls to ensure discharge of this pollutant source in stormwater is minimized. The site was evaluated and there were no chemical sources of nitrate/nitrite found. R&G/DEP walked down the outfall drainage area and observed several areas of deer scat. 11/1/19: R&G/pest control raked up as much deer scat as possible in the area and disposed of it.	Y	22	Since outfall 022 is associated with substantially identical outfalls (SIOs) 021, 023, 024, and 025, facility personnel must also assess the need for corrective action at these outfalls and document how the corrective action was appropriate for all SIOs, document why the exceedance would not affect these outfalls, or document additional corrective action taken specific to either of these outfalls.	Y	10/30/2019 12:00	11/1/2019 16:00	Y	-	N/A	-
1621	UI	TA-60-1 Heavy Equipment Yard	10/7/2019 14:53	Asphalt under heavy equipment staging area west of 60-0001 discharging to SIO 025	BANAR ALETHEA K	BANAR ALETHEA K	A new corrective action	Unauthorized release or discharge	-	Fresh oil spots on asphalt under staged heavy equipment.	Quarterly visual assessment	-	Use microblaze or other means to clean up the oil. The area was microblazed 10/7/19.	Y	25	This action is specific to 025.	N	10/7/2019 15:00	10/7/2019 16:00	Y	-	-	-
1620	UI	TA-60-1 Heavy Equipment Yard	10/7/2019 14:53	Rock check dams in Maniac road side swale northwest of build. 60-0001	BANAR ALETHEA K	BANAR ALETHEA K	A new corrective action	Control measures not properly operated or maintained	-	Sediment accumulation upgradient of rock check dams 600040610012, 600040610058, and 600040610057 allowing sediment to be discharged from HEY.	Quarterly visual assessment	-	Remove/clean out the sediment from upgradient of each rock check dam. Work was completed 10/8/19.	Y	25	This action is specific to 025.	N	10/8/2019 9:00	10/8/2019 14:00	Y	-	-	-
1619	UI	TA-60-1 Heavy Equipment Yard	10/7/2019 14:53	Storage yard east of 60-0009	BANAR ALETHEA K	BANAR ALETHEA K	A new corrective action	Control measures not properly operated or maintained	-	One coregated metal bin of rusted chain and five axles with no covering exposing metal to stormwater. Three stockpiles of rusting metal with deteriorating and/or displaced tarps exposing metal to stormwater.	Quarterly visual assessment	-	Either dispose of/recycle metal or place metals under a permanent cover. Materials were either covered or sent for metal recycle. Completed 10/9/19.	Y	23	This action is specific to 023.	N	10/8/2019 8:00	10/9/2019 9:00	Y	-	-	-
1612	UI	TA-60-1 Heavy Equipment Yard	9/26/2019 12:30	Upper East Lot, Outfall 022 and Near Outfall 024	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Other (describe) :	Housekeeping	At the TA-60-1 Heavy Equipment Yard, trash and cardboard are located at the southeast end of the upper east lot, trash is in the gabion channel of Outfall 022 and slope above Outfall 024.	Routine facility inspection	-	Perform housekeeping (trash removal) in areas noted above.	Y	24	Trash was located in/around Outfalls 022 and 024.	N	9/26/2019 13:00	9/26/2019 14:00	Y	-	-	-
1603	UI	TA-60-1 Heavy Equipment Yard	9/23/2019 15:59	Outfall 022 at the TA-60-1 Heavy Equipment Yard.	WHEELER HOLLY L	WHEELER HOLLY L	A new corrective action	Impaired water quality exceedance	-	Discharge from outfall 022 at the TA-60-1 Heavy Equipment Yard exceeded the New Mexico water quality standard for dissolved Copper. The concentration of dissolved Copper discharged during the storm event on 04/22/2019 was 13.4 ug/L and the water quality standard is 7.0 ug/L.	Impaired waters monitoring	-	Personnel shall evaluate potential pollutant sources of dissolved Copper and implement additional controls to ensure discharge of this pollutant source in stormwater is minimized. Multiple corrective actions have been taken, which post-date this exceedance: Sweeping and outfall clean-out was performed in Jul, Aug and Sept 2019. The Metallox wattles were changed out in Aug 2019.	Y	Only outfall 022	Exceedance is specific to outfall 022.	Y	9/24/2019 8:00	9/24/2019 8:00	Y	-	N/A	-
1602	UI	TA-60-1 Heavy Equipment Yard	9/23/2019 15:51	Outfall 022 at the TA-60-1 Heavy Equipment Yard.	WHEELER HOLLY L	WHEELER HOLLY L	A new corrective action	Impaired water quality exceedance	-	Discharge from outfall 022 at the TA-60-1 Heavy Equipment Yard exceeded the New Mexico water quality standard for total recoverable Aluminum. The concentration of total recoverable Aluminum discharged during the storm event on 04/22/2019 was 14,900 ug/L and the water quality standard is 1,010 ug/L.	Impaired waters monitoring	-	Personnel shall evaluate potential pollutant sources of total recoverable Aluminum and implement additional controls to ensure discharge of this pollutant source in stormwater is minimized. Multiple corrective actions have been taken, which post-date this exceedance: Sweeping and outfall clean-out was performed in Jul, Aug and Sept 2019. The Metallox wattles were changed out in Aug 2019.	Y	Only outfall 022	Exceedance is specific to only outfall 022.	Y	9/24/2019 8:00	9/24/2019 8:00	Y	-	N/A	-

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1589	UI	TA-60-1 Heavy Equipment Yard	8/27/2019 11:53	East Side of Building 1	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Unauthorized release or discharge	-	At the TA-60-1 Heavy Equipment Shop, two spills were reported to EPC from vehicles waiting for repair in the east lot. One was identified as hydraulic oil originating from a garbage truck and the other was motor oil from a skid steer.	Other (describe) :	-	Facility personnel applied absorbent to both spills and also treated the impacted areas with MicroBlaze. The spills did not leave the site or impact any outfalls, SWMUs or AOCs and will not be reportable to NMED.	N	-	-	Y	8/27/2019 11:53	8/27/2019 12:00	Y	-	N/A	-
1580	UI	TA-60-1 Heavy Equipment Yard	8/5/2019 10:41	Along the channel below outfall 021 at the TA-60-1 Heavy Equipment Yard	WHEELER HOLLY L	BANAR ALETHEA K	A new corrective action	Control measures not properly operated or maintained	-	In the channel below outfall 021 at the TA-60-1 Heavy Equipment Yard, there are oil absorbing socks that are no longer in a position to be effective.	Other (describe) :	While conducting sampler maintenance	Determine if socks are still usable. One of the socks is damaged and no longer useful. If not, dispose of them. If useable, position them in a manner and at a location that will be effective at removing oil.	N	-	-	Y	8/6/2019 8:00	8/6/2019 10:00	Y	-	N/A	-
1579	UI	TA-60-1 Heavy Equipment Yard	8/5/2019 10:41	Around outfall 023 at the TA-60-1 Heavy Equipment Yard	WHEELER HOLLY L	BANAR ALETHEA K	A new corrective action	Control measures not properly operated or maintained	-	Gravel bags around outfall 023 at the TA-60-1 Heavy Equipment Yard are splitting.	Other (describe) :	While conducting sampler maintenance	Replace ripped gravel bags around outfall 023.	Y		23 Issue specific to outfall 023 only.	N	8/6/2019 8:00	8/6/2019 10:00	Y	-	N/A	-
1578	UI	TA-60-1 Heavy Equipment Yard	8/5/2019 10:40	On secondary containment pallets near the oil/water separator at the TA-60-1 Heavy Equipment Yard	WHEELER HOLLY L	BANAR ALETHEA K	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	Large oily filters are being stored on secondary containment outside near the oil/water separator at TA-60-1, and are only partially covered.	Other (describe) :	While conducting stormwater sampler maintenance	Dispose of the filters, containerize them, or cover them to prevent contact with precipitation.	N	-	-	N	8/6/2019 8:00	8/6/2019 14:00	Y	-	N/A	-
1577	UI	TA-60-1 Heavy Equipment Yard	8/5/2019 10:40	East of the high bay and the lower yard at the TA-60-1 Heavy Equipment Yard	WHEELER HOLLY L	BANAR ALETHEA K	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	Metal was stored on the east side of the high bay at TA-60-1 without being covered. Rusted concrete forms are only partially covered with tarps.	Other (describe) :	While conducting sampler maintenance	Cover metal stored outside or store it in a building, transportainer or shed. Cover all rusted forms stored outside.	N	-	-	N	8/6/2019 8:00	8/6/2019 14:00	Y	-	N/A	-
1576	UI	TA-60-1 Heavy Equipment Yard	8/5/2019 10:40	Outside of southeast corner of TA-60-1	WHEELER HOLLY L	BANAR ALETHEA K	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	Tires are stored outside uncovered on the east side of TA-60-1.	Other (describe) :	While conducting sampler maintenance	Place tires in a covered location, put them in a covered roll-off bin, or send them to salvage. Tires were covered on 8/20/19.	N	-	-	Y	8/6/2019 8:00	8/6/2019 10:00	Y	-	N/A	-
1575	UI	TA-60-1 Heavy Equipment Yard	8/5/2019 10:30	Outfall 024 at TA-60 Heavy Equipment Yard	WHEELER HOLLY L	BANAR ALETHEA K	A new corrective action	Control measures not properly operated or maintained	-	At outfall 024 at the TA-60-1 Heavy Equipment Yard, sediment has built up in front of the gravel bags.	Other (describe) :	While conducting sampler maintenance	Clean the sediment out from in front of the gravel bags. Work was scheduled and completed on 8/06/19.	Y		24 Issue is specific to outfall 024 only.	N	8/6/2019 8:00	8/6/2019 10:00	Y	-	N/A	-
1569	UI	TA-60-1 Heavy Equipment Yard	7/24/2019 13:15	NW Metal Fabrication/Repair Bay	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Control measures not properly operated or maintained	-	At the TA-60-1 Heavy Equipment Yard, metal at the NW repair bay (used for fabrication) needs to be re-covered. Tarps are present but are partially covering the materials.	Routine facility inspection	-	Recover the metal materials at the NW bay area. Facility personnel were notified of the corrective action at the time of inspection.	Y		24 Outfall 024 only.	N	7/24/2019 15:00	7/24/2019 16:00	Y	-	N/A	-
1557	UI	TA-60-1 Heavy Equipment Yard	7/11/2019 15:52	Northwest Bay Area	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Unauthorized release or discharge	-	On the west side of the TA-60-1 Heavy Equipment Yard, a backhoe inadvertently ran over a drip pan filled with hydraulic fluid. Approximately 1 gallon of hydraulic fluid was tracked across the repair bay apron and the west side of the yard.	Other (describe) :	Facility Reported to EPC	The hydraulic fluid was cleaned up on the concrete apron with floor dry absorbent and Microblaze. The remaining track of hydraulic oil was Microblazed. The spill did not leave the site boundary or impact a storm drain or outfall.	Y		24 Outfall 024 is the outfall for the impacted area.	Y	7/11/2019 15:52	7/11/2019 16:00	Y	-	N/A	-
1556	UI	TA-60-1 Heavy Equipment Yard	7/8/2019 19:30	Northwest Repair Bay Area	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Unauthorized release or discharge	-	At the NW repair bay apron of the TA-60-1 Heavy Equipment Shop, a small coolant leak occured when mechanics were performing repairs to the cooling system of a LAFD Tender unit. The mechanics had positioned two large drain pans under the truck, however, approximately 1/2 gal. missed the pans and leaked onto the concrete apron area.	Other (describe) :	Facility Reported	The spill was contained with absorbent pads and collected with floor dry. The truck was moved into the repair bay on 7/9/18 by COB and the impacted area was also Microblazed on the morning of 7/10/19. There was no release to a storm drain or outfall.	Y		24 The drainage area is to Outfall 024 only. However, the outfall was not impacted.	Y	7/8/2019 19:30	7/10/2019 8:00	Y	-	-	-
1555	UI	TA-60-1 Heavy Equipment Yard	7/9/2019 13:07	Outfall 022 at the TA-60-1 Heavy Equipment Yard	WHEELER HOLLY L	WHEELER HOLLY L	A new corrective action	Average benchmark value exceedance	-	The average concentration of total recoverable Aluminum discharged from outfall 022 at the TA-60-1 Heavy Equipment Yard was mathematically certain to exceed the benchmark value. This average was calculated from monitoring results associated with the storm event occurring on 04/22/2019 and individual analytical results of 14,900 ug/L. The average was 14,900 ug/L. The benchmark value is 1010 ug/L.	Benchmark monitoring	-	Personnel shall evaluate potential pollutant sources of total recoverable Aluminum and implement additional controls to ensure discharge of this pollutant source in stormwater is minimized. Personnel shall evaluate potential pollutant sources of dissolved Zinc and implement additional controls to ensure discharge of this pollutant source in stormwater is minimized. The Metallox wattles associated with the drainage areas to Outfall 022 were replaced on 7/9/19 and sweeping was performed on 7/13/19. Potential pollutant sources were evaluated by DESH-UIS and Heavy Equipment staff on 7/10/19 (meeting and walkdown). A BMP maintenance schedule will be put in the SWPPP and is listed below: -Lot sweeping will be performed once per month, before and during sampling season (April 1-Oct 31); and additionally as needed after heavy precipitation events (weather permitting). -Metallox wattles associated with outfalls will be changed out in April, July, October. -Culverts and drainages associated with outfalls will be cleaned-out monthly, before and during sampling season; and additionally as needed after heavy precipitation events (weather permitting).	Y	Only outfall 022	Exceedance is specific to outfall 022 only.	Y	7/9/2019 13:08	7/13/2019 12:00	Y	-	N/A	-
1554	UI	TA-60-1 Heavy Equipment Yard	7/9/2019 13:07	Outfall 022 at the TA-60-1 Heavy Equipment Yard	WHEELER HOLLY L	WHEELER HOLLY L	A new corrective action	Average benchmark value exceedance	-	The average concentration of dissolved Zinc discharged from outfall 022 at the TA-60-1 Heavy Equipment Yard was mathematically certain to exceed the benchmark value. This average was calculated from monitoring results associated with the storm event occurring on 04/22/2019 and individual analytical results of 657 ug/L. The average was 657 ug/L. The benchmark value is 99 ug/L.	Benchmark monitoring	-	Personnel shall evaluate potential pollutant sources of dissolved Zinc and implement additional controls to ensure discharge of this pollutant source in stormwater is minimized. The Metallox wattles associated with the drainage areas to Outfall 022 were replaced on 7/9/19 and sweeping was performed on 7/13/19. Potential pollutant sources were evaluated by DESH-UIS and Heavy Equipment staff on 7/10/19 (meeting and walkdown). A BMP maintenance schedule will be put in the SWPPP and is listed below: -Lot sweeping will be performed once per month, before and during sampling season (April 1-Oct 31); and additionally as needed after heavy precipitation events (weather permitting). -Metallox wattles associated with outfalls will be changed out in April, July, October. -Culverts and drainages associated with outfalls will be cleaned-out monthly, before and during sampling season; and additionally as needed after heavy precipitation events (weather permitting).	Y	Only outfall 022	Exceedance is specific to outfall 022 only.	Y	7/9/2019 13:08	7/13/2019 12:00	Y	-	N/A	-

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1551	UI	TA-60-1 Heavy Equipment Yard	7/2/2019 14:40	Near outfall 025 at the TA-60-1 Heavy Equipment Yard.	WHEELER HOLLY L	BANAR ALETHEA K	A new corrective action	Control measures not properly operated or maintained	-	A portion of the stormwater discharging to outfall 025 at the TA-60-1 Heavy Equipment Yard is bypassing the outfall and discharging to the east.	Other (describe) :	Sampler maintenance	Re-channalize the swale and reposition rock check dam to facilitate drainage of stormwater to the outfall rather than to the east. DEP and R&G was notified of the CAR on 7/3/19 pm. DEP, EPC & R&G walked down the work on 7/8/19 am. The work was scheduled and completed on 7/8/19, immediately after the 04 Jul holiday weekend.	Y	Only 025	Issue is specific to only outfall 025.	N	7/8/2019 9:00	7/8/2019 14:30	Y	-	N/A	-
1547	UI	TA-60-1 Heavy Equipment Yard	6/18/2019 11:22	Drainage Swales and Check Dams for Outfall 025	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Control measures not properly operated or maintained	-	The drainage swale upgradient to Outfall 025 at the TA-60-1 Heavy Equipment Shop needs to be re-graded so that it drains properly to the outfall. Stormwater is currently diverting around the rock check dam -0012 and discharging sediment and gravel to the parking lot. Additionally, the rock check dams north and west of the outfall need to be restructured or rebuilt in order to function properly.	Other (describe) :	-	Regrade the drainage swale upgradient of the outfall. Repair/rebuild the rock check dams to the north and west of the outfall. 6/18: DEP, EPC and R&G walked down the site. A wattle will be installed upgradient of the outfall to prevent the sediment transport (as a temporary BMP) until permanet repairs are made. An EX-ID will need to be created and approved for the work. EX-ID # is 19X-0462. Work was completed 6/27/19.	Y	25	Action is applicable to Outfall 025 only.	N	6/18/2019 14:30	6/27/2019 12:00	Y	-	N/A	-
1546	UI	TA-60-1 Heavy Equipment Yard	6/18/2019 13:45	Metal Fabrication area at the NW Bay	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Control measures not properly operated or maintained	-	At the NW Bay of the TA-60-1 Heavy Equipment Shop, there is metal for fabrication that is not covered properly. Tarps are present but only partially covering the materials.	Routine facility inspection	-	Resecure tarps to properly cover metal materials.	N	-	-	N	6/19/2019 8:00	6/19/2019 8:15	Y	-	N/A	-
1543	UI	TA-60-1 Heavy Equipment Yard	6/13/2019 9:57	West side of Shed 60-0126 in the lower east yard at the TA-60-1 Heavy Equipment Yard	WHEELER HOLLY L	BANAR ALETHEA K	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	In the lower east yard at the TA-60-1 Heavy Equipment Yard, there are bales and rolls of insulation on the west side of shed 60-0126 that are strewn about and uncovered. This is a housekeeping issue.	Other (describe) :	Sampler maintenance	Clean up the area and remove the insulation or store it neatly and cover it. This is a housekeeping issue that will become worse as the insulation degrades in the weather. 6/14: ESH manager was notified to contact the insulator superintendant regarding the issue. 6/17: The Central Shops manager was contacted and the materials were evaluated, and most of them were removed from the facility. The remaining materials left on site have been covered.	N	-	-	N	6/17/2019 9:00	6/17/2019 14:00	Y	-	N/A	-
1542	UI	TA-60-1 Heavy Equipment Yard	6/13/2019 9:57	East lower lot at the TA-60-1 Heavy Equipment Yard.	WHEELER HOLLY L	BANAR ALETHEA K	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	Several areas within the eastern lower lot of the TA-60 Heavy Equipment Yard had metal stock for fabrication that was not covered, rusted blades that were not adequately tarped or rusted pieces of old equipment stored without being covered.	Other (describe) :	Sampler maintenance	Move metal stock and rusted metal equipment inside, salvage it, or adequately cover it to prevent contact with precipitation. The work is scheduled to be done on Monday, 6/17 when the shop laborer can perform the work. 6/17: Most of the tarps on the materials were readjusted to provide adequate cover. 6/18: During the routine inspection, it was noted that some of the items were still not covered; primarily the metal materials located on the north side of the lower east lot. The facility stated that they will make sure the items get covered by the morning of 6/19.	N	-	-	N	6/17/2019 11:00	6/19/2019 8:00	Y	-	N/A	-
1541	UI	TA-60-1 Heavy Equipment Yard	6/13/2019 9:57	Between Building 60-1 and Shed 60-0314 at the TA-60 Heavy Equipment Yard.	WHEELER HOLLY L	BANAR ALETHEA K	A new corrective action	Unauthorized release or discharge	-	At the TA 60-1 Heavy Equipment Yard, there is a oil spot behind one of the vehicles parked between Building 60-0001 and Shed 60-0314	Other (describe) :	Sampler maintenance.	Spray the oil spot with Micro-Blaze. EPC notified the facility and the area was sprayed with MicroBlaze immediately after notification.	N	-	-	N	6/13/2019 10:00	6/13/2019 10:30	Y	-	N/A	-
1538	UI	TA-60-1 Heavy Equipment Yard	6/3/2019 13:45	A bit south and east of the oil/water separator at TA-60-1.	WHEELER HOLLY L	BANAR ALETHEA K	A new corrective action	Unauthorized release or discharge	-	A bit south and east of the oil/water separator at the TA-60-1 Heavy Equipment Yard, oil has been spilled on the asphalt.	Other (describe) :	Observed during sampler maintanance.	EPcClean up the spilled oil at the TA-60-1 Heavy Equipment Yard. 6/4/19: Shop personnel cleaned up the impacted area with dry absorbent and Microblaze. The leaking vehicle was taken into the shop for repairs.	N	-	-	N	6/4/2019 8:00	6/4/2019 9:00	Y	-	N/A	-
1527	UI	TA-60-1 Heavy Equipment Yard	5/15/2019 9:00	Northwest Lot of Shop	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Unauthorized release or discharge	-	While LAFD was testing a fire truck's ladder function at the facility, the truck released 1-2 gallons of coolant in the front parking lot.	Other (describe) :	Facility Reported	The truck was taken into the shop for diagnostics. Dry absorbent was applied to the impacted area and it was also MicroBlazed.	N	-	-	Y	5/15/2019 9:00	5/15/2019 11:00	Y	-	The spill was remediated immediately after it occurred.	-
1526	UI	TA-60-1 Heavy Equipment Yard	5/14/2019 8:41	Upper East Lot at North Side	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Unauthorized release or discharge	-	While personnel were attempting to move a dump truck, accumulated stormwater that was in the bed of the truck was released onto the ground east of the shop. The stormwater contained salt, some rust and dirt.	Other (describe) :	-	The facility used the Elgin sweeper to clean up the sediment and salt. The stormwater reached the far northeast section of the lot but there was no release from the site.	N	-	-	Y	5/14/2019 8:41	5/14/2019 12:00	Y	-	The release was contained on site and cleaned up immediately after it occurred.	-
1524	UI	TA-60-1 Heavy Equipment Yard	5/9/2019 9:00	Outfall 021	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Unauthorized release or discharge	-	Facility personnel reported an oil sheen in the stormwater drainage channel.	Other (describe) :	Facility Reported	There was an oil sheen identified in the drainage channel between the upper and lower east lots. There was no specific spill observed from the upper east lot.	Y	Outfall 021	Oil sheen was observed at Outfall 021. Corrective action taken would be applicable to other SIOs in the event a release would affect those outfalls.	Y	5/9/2019 9:15	5/9/2019 10:00	Y	-	The upper lot was inspected for spills as well as the next door salvage yard. Microblaze was applied to the upper lot area and around the petro barriers. Oil booms were placed in the drainage channel. There was no sheen observed leaving the site.	-
1519	UI	TA-60-1 Heavy Equipment Yard	5/7/2019 10:00	NW corner of the TA-60-1 Heavy Equipment Yard.	WHEELER HOLLY L	WHEELER HOLLY L	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	In the NW corner of the TA-60-1 Heavy Equipment Yard, raw material metal that has been previously cut is stored outside uncovered.	Other (describe) :	Confirmation of BMP installation	Cover the raw material metal stored outside.	N	-	-	N	5/8/2019 11:00	5/8/2019 12:00	Y	-	Materials were covered 5/8/19.	-
1518	UI	TA-60-1 Heavy Equipment Yard	5/7/2019 10:00	The third rock check dam east of outfall 021 (control number 6000406010018) at the TA-60-1 Heavy Equipment Yard	WHEELER HOLLY L	WHEELER HOLLY L	A new corrective action	Control measures not properly operated or maintained	-	In the southern drainage channel within the lower yard at the TA-60-1 Heavy Equipment Yard, stormwater is flowing around the north end of the rock check dam (control #6000406010018). Sediment from this diversion needs to be cleaned out from behind the check dam.	Other (describe) :	Confirmation of BMP installation	Rocks need to be redistrubuted so stormwater drains through the center of the channel, not to the north. Sediment needs to be removed from the channel as it is about to go over the top of control # 60004060100019.	N	-	-	N	5/13/2019 8:00	5/13/2019 12:00	Y	-	Roads and Grounds will perform work. Will schedule for the week of 5/13/19. Work was completed 5/13/19.	-
1517	UI	TA-60-1 Heavy Equipment Yard	5/7/2019 10:00	Drop inlet with filters at outfall 023 at the TA-60-1 Heavy Equipment Yard.	WHEELER HOLLY L	WHEELER HOLLY L	A new corrective action	Control measures not properly operated or maintained	-	Trash needs to be cleaned out of drop inlet with filters at outfall 023 at the TA-60-1 Heavy Equipment Yard.	Other (describe) :	Confirmation of BMP installation	Clean the trash out of the filters associated with the drop inlet at outfall 023.	Y	Only 023	The filters are only associated with outfall 023.	N	5/13/2019 8:00	5/13/2019 12:00	Y	-	Roads and Grounds will perform work since a forklift will be needed to remove the drain grates. This work will be scheduled for the week of 5/13/19. Work was completed on 5/13/19.	-

CAR #	FOD	MSGP Facility Desc	Inspection Date	Specific Location	Inspector Name	Identifying Name	CA Report Status	Finding	Finding Other Desc	Problem Description	Inspection Type	Inspection Type Other	Corrective Action Description	SIO	SIO Affected	Provide Action Taken at Affected SIOs	Swppp Modify	CA Initiate Date	CA Complete Date	Completed	CA Expected Date	CA Status Desc	EPA Notified Date
1516	UI	TA-60-1 Heavy Equipment Yard	5/7/2019 10:00	In the southern portion of the upper yard at the TA-60-1 Heavy Equipment Yard.	WHEELER HOLLY L	WHEELER HOLLY L	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	In the southern portion of the upper yard, there is a tire roll off bin that contained rubber tracks that was not covered. In addition, numerous tires were stored outside uncovered.	Other (describe) :	Confirmation of BMP installation	Place used tires in tire roll-off bin and cover the bin.	N	-	-	N	5/8/2019 11:00	5/8/2019 12:00	Y	-	-	-
1515	UI	TA-60-1 Heavy Equipment Yard	5/7/2019 11:35	West of TA-60-1 under truck with license plate # G82 0189L)	WHEELER HOLLY L	WHEELER HOLLY L	A new corrective action	Unauthorized release or discharge	-	West of the TA-60-1 Heavy Equipment Yard, under a truck with license plate # G82 0189L, about a cup of oil is leaking onto the asphalt.	Other (describe) :	Confirmation of BMP installation	Absorb the oil and manage the spill clean-up material as waste. Spray the area with Micro-Blaze.	N	-	-	N	5/7/2019 12:00	5/7/2019 13:00	Y	-	Vehcile was moved to the apron with a drip pan under it. Floor dry was used to absorb the hydraulic oil and was swept up. MicroBlaze was also applied to the impacted area.	-
1514	UI	TA-60-1 Heavy Equipment Yard	5/7/2019 9:45	Within the culvert at outfall 025 and along the northern drainage channel at TA-60-1 HEY	WHEELER HOLLY L	WHEELER HOLLY L	A new corrective action	Control measures inadequate to meet non-numeric effluent limitations	-	Within the culvert at outfall 025 and along the northern drainage channel for the TA-60-1 Heavy Equipment Yard, there is trash that needs to be picked up.	Other (describe) :	Confirmation of BMP installation	Pick up the trash within the culvert at outfall 025 and along the northern drainage channel.	Y	Only 025	Trash was only identified at outfall 025.	N	5/8/2019 13:00	5/8/2019 14:00	Y	-	Trash was picked up 5/8/19.	-
1513	UI	TA-60-1 Heavy Equipment Yard	5/7/2019 9:45	By the entrance to TA-60-1 off Maniac Road	WHEELER HOLLY L	WHEELER HOLLY L	A new corrective action	Unauthorized release or discharge	-	At the entrance to TA-60-1, the Heavy Equipment Yard, there was liquid salt solution leaking from two salt spreading trucks (license plate numbers G82 0764V and G82 0185K).	Other (describe) :	Confirmation of BMP installation.	Sweep the area to remove the concentrated salt residue and put in controls to block it from entering the drainage channel to the north of the facility.	Y	24	If a stormwater control is put in place to prevent concentrated salt from entering the drainage channel to the north of the facility, outfall 024 will not be affected.	Y	5/7/2019 10:00	5/7/2019 12:00	Y	-	The entire front lot was swept to disburse salt concentration. The drainage channel was blocked with an absorbent boom.	-
1499	UI	TA-60-1 Heavy Equipment Yard	4/23/2019 12:00	East Drainage Channel	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Other (describe) :	Housekeeping	There is a tarp and a large piece of cardboard that has blown into the main drainage channel (of Outfall 022) between the upper and lower east lots.	Routine facility inspection	-	Remove the materials from the drainage channel.	N	-	-	N	4/24/2019 8:00	4/24/2019 12:00	Y	-	Reported to facility at the time of inspection. Work completed 4/24/19.	-
1498	UI	TA-60-1 Heavy Equipment Yard	4/23/2019 12:00	Lower East Lot	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Control measures not properly operated or maintained	-	Metal roll-off bin is uncovered.	Routine facility inspection	-	The metal roll-off bin on site needs to be covered.	Y	23	The lower east lot is applicable to SIO 023.	N	4/24/2019 8:00	4/24/2019 12:00	Y	-	Reported to facility personnel at the time of inspection. Salvage has provided a heavy duty tarp for the bin. The bin is scheduled to be picked up at the MRF on 4/24/19. Bin was covered 4/24/19.	-
1497	UI	TA-60-1 Heavy Equipment Yard	4/23/2019 12:00	NW Corner Bay	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Control measures not properly operated or maintained	-	Retarp metal materials for fabrication located at the NW bay area.	Routine facility inspection	-	Retarp/recover materials.	Y	24	Area is applicable to SIO 024.	N	4/24/2019 8:00	4/24/2019 12:00	Y	-	CAR reported to facility personnel at the time of inspection. Work complete 4/24/19.	-
1496	UI	TA-60-1 Heavy Equipment Yard	4/23/2019 12:00	Lower East Lot	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Control measures not properly operated or maintained	-	Retarp metal materials at lower east lot. Replace tarps where needed.	Routine facility inspection	-	Recover/retarp materials.	Y	23	Lower east lot is applicable to SIO 023.	N	4/24/2019 8:00	4/24/2019 12:00	Y	-	CAR reported to facility personnel at the time of inspection. Work complete 4/24/19.	-
1491	UI	TA-60-1 Heavy Equipment Yard	4/9/2019 10:00	Outfall 024 NW Shop Bay	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Unauthorized release or discharge	-	Potable water was discharged to Outfall 024 from the southwestern most bay when a shop worker decided to wash away dirt left near the bay door from the Elgin street sweeper. It is estimated that several gallons of water was discharged. There was no oil sheen present on the water but it discharged to the single stage sampler located at the outfall.	Other (describe) :	DEP Performing Walkdown for BMP Maintenance	DEP spoke with facility personnel to determine the cause of the discharge and to ensure that it was discontinued. The discharge was reported to EPC. EPC notified the facility of the unpermitted discharge and that it must cease. Facility personnel spoke to the shop worker and instructed him on the correct means for cleaning the shop, which is with sweeping and no wash-water.	Y	24	Applicable to 024. However, unpermitted discharges are not allowed at any outfall.	Y	4/9/2019 10:15	4/9/2019 17:00	Y	-	Corrective action was taken immediately and the discharge was stopped. EPC removed the discharged water from the single stage sampler. Further training for shop personnel may be applicable.	-
1490	UI	TA-60-1 Heavy Equipment Yard	4/1/2019 16:00	NW Bay Area	BURGIN JILLIAN E	WHEELER HOLLY L	A new corrective action	Control measures not properly operated or maintained	-	Uncovered rusted stock metal was left uncovered at the NW bay area.	Other (describe) :	EPC installing single stage samplers	Cover metal materials.	Y	24	Applicable to 024 only.	N	4/2/2019 12:30	4/2/2019 13:00	Y	-	The metal was covered (recovered) on 4/2/19.	-
1489	UI	TA-60-1 Heavy Equipment Yard	4/1/2019 16:00	Outfall 024	BURGIN JILLIAN E	WHEELER HOLLY L	A new corrective action	Unauthorized release or discharge	-	An oil sheen was identified at a small pool of water at the bottom of outfall 024 (MSGP02401). During a subsequent walk down (to identify the source of the spill) with facility personnel, a spill was found near the outfall. Absorbent had been applied to spill area but had not been cleaned up yet. Absorbent pads were at the top of the outfall and/or the channel. An oily rag was also present in the area.	Other (describe) :	-	The sheen pool of stormwater needs to be absorbed. The spill needs to be cleaned up and the absorbent pads and oily rags need to be picked up and siposed of properly.	Y	24	Applicable to outfall 024 only.	Y	4/2/2019 9:00	4/2/2019 10:00	Y	-	The oil sheen was removed from the pool of water. DEP verified that the water looked clear and the sheen was gone.	-
1488	UI	TA-60-1 Heavy Equipment Yard	4/1/2019 16:00	Outfall 025 Culvert	BURGIN JILLIAN E	WHEELER HOLLY L	A new corrective action	Control measures not properly operated or maintained	-	The culvert of Outfall 025 is about half full of sediment.	Other (describe) :	EPC installing single stage samplers	Remove/clean-out sediment from the outfall culvert.	Y	25	Applicable for Outfall 025 only.	N	4/10/2019 10:00	4/10/2019 12:00	Y	-	EPC reported on 4/1/19 while installing single stage samplers. The work was walked down with Roads & Grounds on 4/9/19. Work completed 4/10/19.	-
1484	UI	TA-60-1 Heavy Equipment Yard	3/26/2019 12:00	Outfalls 022 and 024	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Other (describe) :	Post Winter PM	Outfall drainages need sediment removal/clean-out and Metallox Wattles (022) and gravel bags (024) replaced.	Routine facility inspection	-	Clean out drainage areas at outfalls and replace wattles/gravel bags.	Y	24	CAR is applicable to Outfalls 024 and 022.	Y	4/3/2019 8:00	4/3/2019 16:00	Y	-	Reported to facility personnel at the time of inspection. Roads and Grounds will need to schedule/perform work. DEP walked down with Roads & Grounds 3/29/19. Work is scheduled to be performed the week of 4/1/19. Work was performed on 4/3/19.	-
1483	UI	TA-60-1 Heavy Equipment Yard	3/26/2019 12:00	Northwest Bay at Metals Fabrication Area	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Control measures not properly operated or maintained	-	Metal storage areas at the NW bay are uncovered.	Routine facility inspection	-	Retarp/cover metal materials.	Y	24	CAR is applicable to 024.	N	3/29/2019 8:00	3/29/2019 12:00	Y	-	Reported to facility personnel at the time of inspection. Work completed 3/29/19.	-
1482	UI	TA-60-1 Heavy Equipment Yard	3/26/2019 12:00	Upper E and Lower E Lots Material Storage	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Control measures not properly operated or maintained	-	Tarps have blown off metal materials storage at upper east lot (rack north of shed 0330) and at lower east storage area - mainly along the east perimeter.	Routine facility inspection	-	Replace tarps to properly cover materials.	Y	23	Areas at 023 and 026 both need corrective action.	N	3/29/2019 8:00	3/29/2019 12:00	Y	-	Reported to facility personnel at the time of inspection. Work was completed 3/29/19.	-
1481	UI	TA-60-1 Heavy Equipment Yard	3/26/2019 12:00	Petro Barriers at Upper SE Corner	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Control measures not properly operated or maintained	-	The petro barrier filters need to be replaced after winter snow removal was piled in the area.	Routine facility inspection	-	Replace petro barrier filters.	Y	21	This CAR is applicable only to 021.	N	4/15/2019 10:00	4/15/2019 12:00	Y	-	Reported to facility personnel at the time of inspection. After checking, the filters needed to be ordered. An order request was placed on 3/28/19. The filters were received on 4/11/19. They were installed on 4/15/19 am.	-

CAR #	FOD	MSGP Facility Desc	Inspection Date	Specific Location	Inspector Name	Identifying Name	CA Report Status	Finding	Finding Other Desc	Problem Description	Inspection Type	Inspection Type Other	Corrective Action Description	SIO	SIO Affected	Provide Action Taken at Affected SIOs	Swppp Modify	CA Initiate Date	CA Complete Date	Completed	CA Expected Date	CA Status Desc	EPA Notified Date
1480	UI	TA-60-1 Heavy Equipment Yard	3/26/2019 12:00	Upper East Lot	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Control measures not properly operated or maintained	-	Housekeeping needed at rack/storage area between sheds 60-330 and 314.	Routine facility inspection	-	Clean up torn boxes and trash in area and reorganize materials that belong on racks.	N	-	-	N	3/29/2019 8:00	3/29/2019 12:00	Y	-	Reported to facility personnel at the time of inspection. Work was completed on 3/29/19.	-
1469	UI	TA-60-1 Heavy Equipment Yard	2/27/2019 8:00	North Side of East Lot	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Unauthorized release or discharge	-	Approximately 3 gallons of oily water leaked out of a metal roll-off bin - caused by residual stormwater in the bin and a drum of oil filters coming open during transport to the MRF. The oil from the filters and stormwater mixed and leaked out of the bin when it was lifted for transport.	Other (describe) :	Facility Reported	The spill was contained mostly on asphalt with a small area of impacted soil. HEY staff applied absorbent to the impacted area to remove the residual water then applied Micro-blaze to the impacted area. The impacted soil identified in the walk down this morning will also need to be removed to complete spill remediation. The release did not leave the site or adversely impact any SWMUs or AOCs and does not meet any external reporting requirements.	N	-	-	Y	2/27/2019 8:00	2/27/2019 10:00	Y	-	The spill was remediated the same day. Personnel were reminded to ensure oil filter drums are closed when put in roll-off bins and also to keep roll-off bins covered.	-
1467	UI	TA-60-1 Heavy Equipment Yard	2/26/2019 12:00	Tire Storage Upper East Side	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Control measures not properly operated or maintained	-	Accumulated tires are being stored outside, uncovered.	Routine facility inspection	-	Place accumulated tires in covered roll-off bin to be sent to MRF.	N	-	-	N	2/26/2019 15:00	2/26/2019 16:00	Y	-	The facility was notified of CAR at the time of inspection. Work was completed same day.	-
1466	UI	TA-60-1 Heavy Equipment Yard	2/26/2019 12:00	Northwest Corner Shop Bay	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Control measures not properly operated or maintained	-	The metal materials (for fabrication) outside of the NW bay need to be re-covered.	Routine facility inspection	-	Re-cover the metal materials with tarps that are on site.	N	-	-	N	2/26/2019 15:00	2/26/2019 16:00	Y	-	The facility was notified of CAR at the time of inspection. Work was completed same day.	-
1463	UI	TA-60-1 Heavy Equipment Yard	2/13/2019 14:00	NE Side of Shop on Asphalt	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Unauthorized release or discharge	-	A generator that was dropped off at the Heavy Equipment shop was found to have leaked a small amount of diesel fuel onto the asphalt parking lot.	Other (describe) :	Facility Reported	The leak was cleaned up with Microblaze upon discovery.	N	-	-	Y	2/13/2019 14:00	2/13/2019 15:00	Y	-	The leak was remediated upon discovery.	-
1462	UI	TA-60-1 Heavy Equipment Yard	2/13/2019 11:00	West of TA-60-1 at Taxi Parking Area	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Unauthorized release or discharge	-	A taxi was found to be leaking a small amount of diesel fuel onto the asphalt parking lot.	Other (describe) :	Hazmat reported	A diesel spill from a taxi was discovered today at the stop east of TA-55-400 on Pecos Drive. SEO and HAZMAT responded and applied absorbent and Micro-blaze to remediate the release. The leaking taxi was then identified parked west of TA-60-1 with a small amount of additional diesel spilled at that location. Heavy Equipment staff applied absorbent to the spill at TA-60-1 to minimize the extent of the release and repairs to the vehicle will be made. The absorbent will need to be removed and Micro-blaze should be applied to the impacted area once the vehicle is removed from the site. In total it is estimated that 1 gallon of diesel leaked. The spill did not reach a watercourse or adversely impact any SWMUs or AOCs and does not meet any external reporting requirements.	N	-	-	Y	2/13/2019 11:00	2/13/2019 12:00	Y	-	The spill was remediated shortly after it occurred.	-
1458	UI	TA-60-1 Heavy Equipment Yard	1/29/2019 12:00	Metal Cutting Area at NW Shop/Bay	BURGIN JILLIAN E	BURGIN JILLIAN E	A new corrective action	Control measures not properly operated or maintained	-	Metal materials located at NW shop/bay are outside and uncovered.	Routine facility inspection	-	Cover metal materials or store inside.	Y	24	Covering of metal materials reduces pollutants in stormwater runoff.	N	1/29/2019 13:00	1/30/2019 12:00	Y	-	The Heavy Equipment shop began work to cover materials shortly after the inspection. The metals were all covered or removed by 1/30/19.	-

Attachment 10: **SCHEDULED MAINTENANCE LOG**

SCHEDULED MAINTENANCE LOG

Date	**Control Measure or Equipment Description** (include location where appropriate)	**Action Taken/Comments**	**Action Taken By** (printed name & Z no.)

Attachment 11: **TRAINING DOCUMENTATION**

2018 SWPPP Training Roster – TA-60-1 Heavy Equipment Shop 12/17/18

Name	Z#	Job Title
Beverly Aquino	086263	Laborer Foreman
Jeffry Martinez	262098	Laborer
Justin Lo	244015	SUPERVISOR
Ryan Locke	309304	Superintendent

2018 Annual SWPPP Training

TA-60-1 Heavy Equipment Shop

- Review 2017 training presentation (new employees to the SWPPP, if applicable)
- New BMPs or facility changes?
- Review of CARs 2018
  - 2/23/18: Tarps are torn at the lower east lot. Materials were re-tarped on 3/2/18.
  - 4/26/18: There is excessive sediment accumulation around the gravel bags at Outfall 024. Clean sediment out of outfall at gravel bags. Reported to facility personnel and Roads & Grounds. Will perform a walk down on 4/30 with R&G. Work completed on 5/1/18.
  - 4/26/18: Tarps are torn or blown off materials in lower east lot. Re-secure or replace tarps where needed. Reported to facility personnel at the time of inspection. Problem corrected on 5/2/18.
  - 4/26/18: Housekeeping needed at 150 gallon used oil storage area at SE corner of building; remove cardboard at SE corner of upper lot, remove large metal part that is in the southern drainage ditch at SE lower lot. Reported to facility personnel at the time of inspection. Metal part taken out of ditch on 5/1/18. Housekeeping was performed 5/3/18.
  - 5/23/2018: Tarps on metal materials have come loose in the upper and lower east lot (due to recent storm event). Reported CAR issue to facility personnel at the time of inspection. Problem was corrected on 5/24/18.
  - 10/25/18: Tarps have become unsecured at material storage area. Re-secure tarps where needed to cover materials in the lower east lot. Notified facility of corrective action needed at time of inspection. Corrected 11/9/18.
- Review of Spills 2018
  - 1/25/18: Refueling truck E29904 had a coolant line leak outside of the repair bay on the concrete pad. The truck was in the process of being repaired. Dry absorbant had been applied to the leaked coolant. The leak was contained on site and did not reach a storm drain or outfall. The vehicle was in the process of being repaired and the leak from the coolant line was stopped. The leaked coolant was cleaned up and the leak was stopped. Final repairs to the vehicle will be made on 1/29/18.
  - 6/28/18: Approximately 2 gallons of hydraulic fluid spilled on the east side of TA-60-1 this morning when the filter on a vehicle (Vacuum Truck G82-0168R) PTO failed. The hydraulic fluid spilled onto the underlying concrete and a small portion entered a trench drain connected to the facility's oil water separator. Upon discovery of the spill, absorbent material was deployed to minimize the extent of the release and Micro-blaze was applied to the impacted area. The spill did not leave the site or adversely impact any SWMUs or AOCs and is not reportable to NMED pursuant to 20.6.2.1203 NMAC. Corrective actions were completed shortly after the spill occurred.

- 8/8/18: Approximately 1 cup of gasoline spilled onto the underlying soil west of TA-60-01 (near the intersection of Eniwetok and Maniac) yesterday afternoon during the refueling of a man lift. The spill occurred when the truck's fuel hose developed a leak while dispensing fuel. The operation was stopped upon discovery of the spill and the impacted soil was removed. Spill was remediated immediately after occurring.

- Overview of Water Quality Exceedances:
  - 7/19/18: Discharge from outfall 022 at the TA-60-1 Heavy Equipment Yard exceeded the New Mexico water quality standard for total recoverable Aluminum. The concentration of total recoverable Aluminum discharged during the storm event on was 2370 ug/L and the water quality standard is 681 ug/L. *Site outfalls were evaluated on 7/19 after notification of CAR. The main drainage channel of Outfall 022 was cleaned out 7/23/18.
  - 7/19/18: Discharge from outfall 022 at the TA-60-1 Heavy Equipment Yard exceeded the New Mexico water quality standard for dissolved Copper. The concentration of dissolved Copper discharged during the storm event was 30.1 ug/L and the water quality standard is 6 ug/L. *Site outfalls were evaluated on 7/19 after notification of CAR. The main drainage channel of Outfall 022 was cleaned out 7/23/18.
- General Discussion/Issues/Questions:
  - Tarps and housekeeping are primary issues. Propose a regularly scheduled walk-down for those items to avoid CARs.
  - Inspection date for EPC Annual Inspection: ***Tuesday 12/19/18***

Storm Water Multi-Sector General Permit (MSGP) for Industrial Facilities

TA-60-1 Heavy Equipment Shop

SWPPP Training

2017-2018

UNCLASSIFIED

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.

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

EPC-CP

Training Topic: MSGP Annual Training for the TA-60-1 Heavy Equipment Yard
Training Date: 01-XX-2020
Location: TA-60 Roads and Grounds Conference Room
Trainer: Holly Wheeler (EPC-CP)

Printed Name	Signature	Z Number	Organization
MICHAEL WILLIAMS		302253	MSS-AERG TA-60
JOE MAES		240936	MSS-Herg TA-60
Elidoro A. Vasquez		238072	MSS-Herg TA-60
~~Fred~~			
Donald J Finley		111347	LOG MSS-HERG TA60
BERNARDUS GARCIA		108481	LOG HERG TA60
Stephen J. Llewelyn		340107	LOG-HERG TA-60-0001
Joel Ellis		323007	LOG-HERG TA-60-0001
Ryan C Valdez		335204	Log-Herg TA60-0001
Kenneth Archuleta		323471	Log-Herg TA60-0001
ALAN R. WEITRICH		305381	LOG-HERG TA60 0001
Jonathan A Vigil		337811	LOG-HERG TA60-0001

EPC-CP

Training Topic: MSGP Annual Training for the TA-60-1 Heavy Equipment Yard
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Trainer: Holly Wheeler (EPC-CP)

Printed Name	Signature	Z Number	Organization
CARLOS LABADIE		518790	LOG – HERG
Alex Benally		240937	LOG - HERG
William Alexander		343600	LOG -HERG
Jose CASADOS		202829	LOG -HERG
Gabriel Ferran		340321	LOG-Herg
Jeffrey Martinez		262098	LOG - Herg
Rudy J Martinez		256591	Log. Herg
Jerome Maestas		108785	LOG-HERG
Ryan Lalle		389364	LOG - HERG

Stormwater Multi-Sector General Permit (MSGP) for Industrial Facilities

TA-60-1 Heavy Equipment Shop

SWPPP Training

2019

UNCLASSIFIED

Why Should You Care About Storm Water?

- One in three Americans get drinking water from public systems that rely in part on streams, rivers or lakes.
- 1 cup of oil can put a sheen on 1 surface *acre* of water.
- The impervious surface of a city block can generate *five times* more runoff than a wooded area of the same size.
- Sediment runoff rates from construction sites are 1,000 to 2,000 times greater than those of forestlands.
- **Storm water runoff is a *major* factor in water quality!**

New Mexico Water Quality Facts

- NM is the fifth largest state in the U.S.
  - 121,607 total square miles
  - 44% is privately owned
- NM is one of the driest states, averaging less than 20” of annual precipitation
- Slightly less than 7% of New Mexico’s streams and rivers are perennial, with the remaining 93% being intermittent or ephemeral.
- 42% of the population is dependent on surface water for a drinking water source
- The Clean Water Act (CWA) helps protect limited, but precious water resources in NM

Clean Water Act – Passed 1972

- Objective: To restore and maintain the chemical, physical and biological integrity of the nation's water
- Protected interstate and intrastate waters, including lakes, rivers, streams, estuaries and wetland
- National Goals:
  - No toxic discharges in toxic amounts
  - All waters will be "fishable and swimmable"
- **Established National Pollutant Discharge Elimination System (NPDES)**
  - Water quality permits

Key Components of the Act

Established the following:

- Clear national goal
- "Dilution is not the solution to pollution"
- Public involvement
- Citizen suits
- NPDES Permit Program
  - Minimum end-of-pipe standards
  - State water quality standards
  - All facilities which discharge *pollutants* from any *point source* into *waters of the United States* are required to obtain an NPDES permit.

Why is Storm Water Management Important at LANL?

- Compliance with federal and state laws
  - Enforceable by EPA and NMED
    - May assess fines and penalties
    - Required corrective actions
    - Shared liability

Multi-Sector General Permit

- The Multi-Sector General Permit (MSGP) is a NPDES Permit associated with the CWA of 1972
  - Regulates storm water discharges from industrial facilities/activities
  - Objective is to minimize pollutants to surface waters
  - A new permit tracking number was issued to Triad when they took over as the new M & O Contractor
    - #NMR050013
  - Link to 2015 MSGP: https://www.epa.gov/npdes/final-2015-msgp-documents

Multi-Sector General Permit (cont.)

- A Stormwater Pollution Prevention Plan (SWPPP) is required (must be updated to reflect current conditions)
  - SWPPP team comprised of DESH, EPC-CP, and applicable facility personnel
  - Control Measures or Best Management Practices (BMPs) are installed to maintain water quality standards
    - Proactive approach to prevent pollutants from discharging
    - Should not solely rely on reactive response to identified conditions requiring corrective action
  - Identifies periodic inspections and sampling (monitoring)

Multi-Sector General Permit (cont.)

Training

- **A permit requirement for:**
  - All employees who work in areas where industrial material or activities are exposed to stormwater
  - Personnel responsible for implementing permit requirements
    - Spill clean-up
    - Installation of stormwater controls (BMPS)
    - The pollution prevention team specified in the SWPPP
    - Personnel signing MSGP compliance documents

MSGP Approaches to Compliance

- Storm Water Pollution Prevention Plan (SWPPP)
  - A site-specific "living" document that:
    - Identifies potential sources of stormwater pollution,
    - List stormwater control measures, and
    - Identifies procedures used to comply with the MSGP.
- Conditional Exclusion for No Exposure
  - Allows for a simplified approach to complying with the MSGP
  - For facilities that are entirely sheltered from stormwater

Active MSGP Regulated Facilities

- **Heavy Equipment – TA-60-01: Sector P (Land Transportation/Warehousing) and AA Fabricated Metal Products**
- **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)
- **Salvage Yard** – TA-60-02: Sector P (Land Transportation/Warehousing)

Common Problems

Poor storage of painting materials

Sloppy storage of Craft's materials

Why Choose No Exposure?

- Exempts the facility from:
  - Writing and maintaining a site-specific Storm Water Pollution Prevention Plan (including significant updates, recertification, and upload to public web site)
  - Storm water discharge monitoring
  - Site inspections (monthly or quarterly)
- Additional Benefits
  - Reduced regulatory liabilities
  - Reduced environmental impacts
  - Reduced operating costs

Best Management Practices (BMPs)

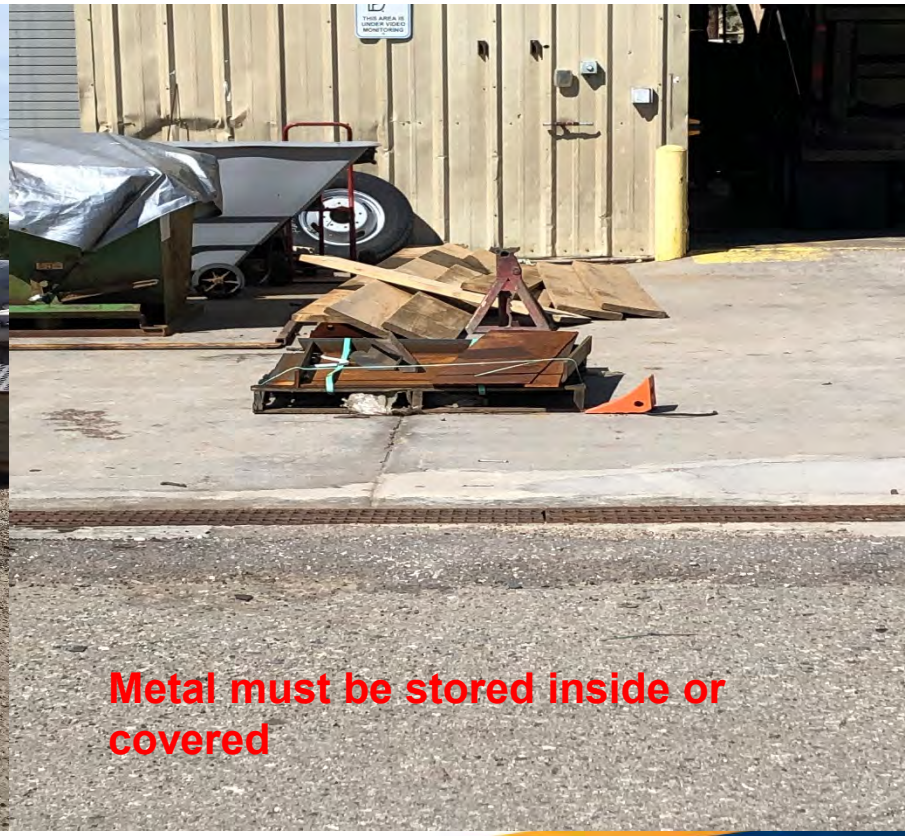
- **Structural**
  - Installation, maintenance, replacement
- **Non-Structural**
  - Written Procedures (i.e. SOPs)
  - Preventive Maintenance
  - Training
  - Pollution Prevention Practices

TA-60-1 HEY SWPPP
Best Management Practices (BMPs)

- Covered/Enclosed Material Storage:
  - Storing industrial materials indoors eliminates exposure to storm water.
  - Ensure metal for fabrication does not come in contact with precipitation.
  - Covered storage racks and roll-off bins minimize storm water contact with materials and pollutants.

Common Problems

Uncovered pollutants



Common Problems

Uncovered pollutants

Roll-off bins must be covered.

Common Problems

Uncovered pollutants

Common Problems

Uncovered pollutants

Common Problems

Spills & Releases

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
  - **Environmental Contacts:**
    - Leonard Sandoval, DESHS-UIS, DEP: 667-3557
    - Russell Stone, DESHS-UIS, ESH Mgr.: 606-0017
    - Holly Wheeler, EPC-CP: 667-1312

Attachment 12: **MSGP (OR ACTIVE URL)**

The active URL for the permit is https://www.epa.gov/npdes/final-2015-msgp-documents

Attachment 13: **THREATENED AND ENDANGERED SPECIES HABITAT MANAGEMENT PLAN FOR LOS ALAMOS NATIONAL LABORATORY**

LA-UR-17-29454
Approved for public release; distribution is unlimited.

October2017

Threatened and Endangered Species Habitat Management Plan for Los Alamos National Laboratory

Los Alamos
NATIONAL LABORATORY
EST.1943

Cover photo: Mexican Spotted Owls at Los Alamos National Laboratory

Prepared by: Environmental Protection and Compliance Division
Resources Management Team
Los Alamos National Laboratory

Prepared for: U.S. Department of Energy, National Nuclear Security Administration,
Los Alamos Field Office

*An Affirmative Action/Equal Opportunity Employe*r

Contents

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ACRONYMS AND TERMS

AEI	area of environmental interest
Bd	Batrachochytrium dendrobatidis (Chytrid Fungus)
DARHT	Dual-Axis Radiographic Hydrodynamic Test (Facility)
dB	decibel
dB(A)	A-weighted decibel
dB(C)	C-weighted decibel
DDT	(dichloro-diphenyl-trichloroethane)
DOE	U.S. Department of Energy
ESA	Endangered Species Act of 1973
fc	foot candles
Field Office	U.S. Department of Energy Los Alamos Field Office
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
LANS	Los Alamos National Security, LLC
NEPA	National Environmental Policy Act of 1969
PCBs	polychlorinated biphenyls
TNT	trinitrotoluene(2,4,6-)
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) fulfills a commitment made to the U.S. Department of Energy (DOE) in the "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). This 2017 update retains the management guidelines from the 1999 HMP for listed species, and updates some descriptive information.

2.0 Role of Site Plans in the HMP

The purpose of the HMP is to provide a management strategy for Endangered Species Act (ESA) compliance through 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 Jemez Mountains Salamander (*Plethodon neomexicanus*). Site plans provide guidance to ensure that LANL operations do not adversely affect threatened or endangered species or their habitats.

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, prime habitat for Black-footed Ferrets, have been observed at LANL. Therefore, there is no site plan for this species.

The New Mexico Meadow Jumping Mouse (*Zapus hudsonius luteus*) and Yellow-billed Cuckoo (*Coccyzus americanus*) do not require a site plan because they do not have breeding habitat on LANL property. In Keller (2015), it was concluded that if any LANL work activities might affect habitat for these two species, those activities would be reviewed for impacts.

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. The USFWS reviewed allowable activities 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

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 occur in the core and/or buffer of all 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.

3.2 General Description of Buffer Areas and Allowable Buffer Area Development

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 size 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 Los Alamos National Security, LLC (LANS) biologists for tracking (http://int.lanl.gov/environment/bio/controls/index.shtml).

3.3 Emergency Actions

Managers may activate emergency actions if safety and/or property is immediately threatened by something occurring within an AEI (for example, wildfire, water line breakage, etc.). Contact a LANS biologist (http://int.lanl.gov/environment/bio/controls/index.shtml), the Environmental Stewardship Group (505-665-8855), or the DOE Los Alamos Field Office (Field Office; 505-667-6819) as soon as possible. If the emergency occurs outside of regular business hours, contact

the Emergency Management Office (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

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.

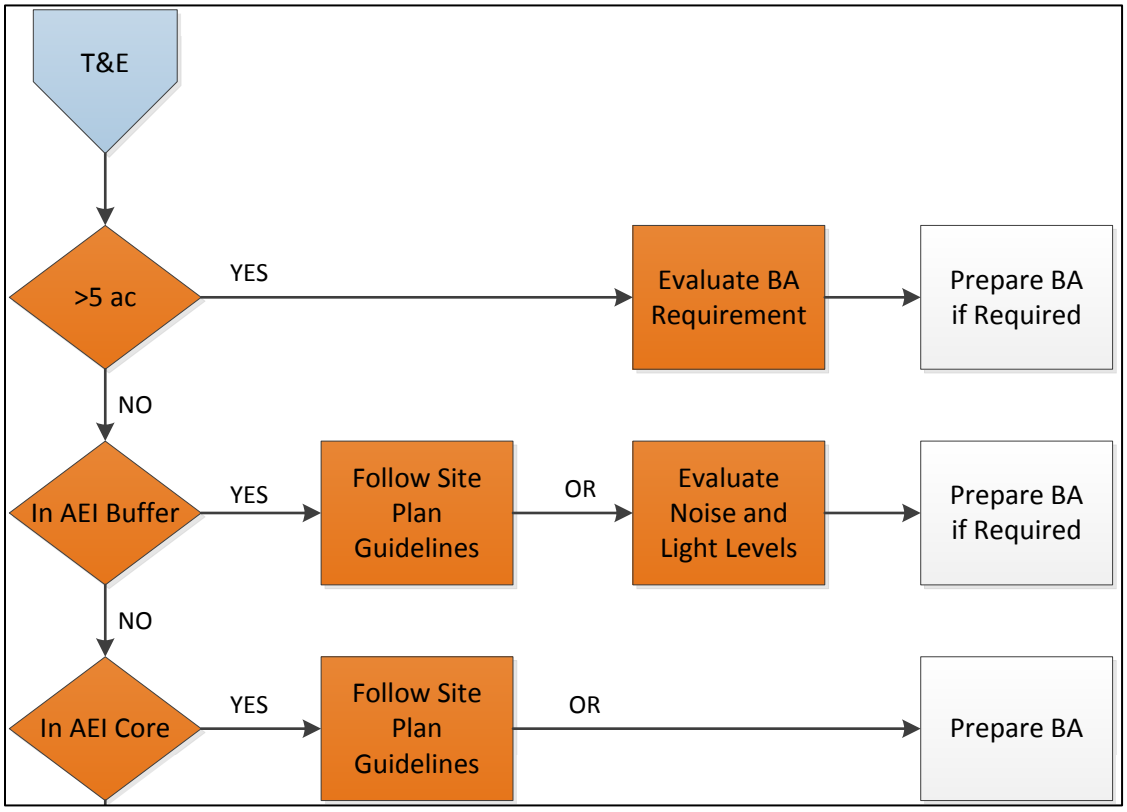

Figure 1. Process flowchart for determining site plan requirements

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 project into the integrated review tool for a new or modified project is required under Program Description 400 (LANL 2016) and allows managers to identify the requirements within their project area. Deployed environmental professionals and core LANS biologists 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 subject matter experts. 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.

4.2 If an Activity Does Not Meet Site Plan Guidelines

If a project reviewer determines that an activity or project cannot meet the guidelines in applicable site plans, LANS biologists evaluate that activity individually for compliance with the ESA. Results of the evaluation of potential impacts allow LANS biologists 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 effect 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 for the activity and submit it to the USFWS for concurrence. Fieldwork and preparation of a biological assessment 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

Habitat locations of threatened and endangered species are not considered sensitive; however, it is in the best interest of threatened and endangered species to restrict specific knowledge about their locations.

5.0 Changes in the HMP since Implementation

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.

In 2005, the USFWS concurred with DOE's proposal for updated Mexican Spotted Owl habitat boundaries based on a revised analysis of Mexican Spotted Owl habitat quality within DOE property around LANL (USFWS consultation number 22420-2006-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).

In 2015, the USFWS concurred with the DOE's addition of the New Mexico Meadow Jumping Mouse and Yellow-billed Cuckoo to LANL's HMP (USFWS consultation number 02ENNM00-2015-I-0538).

In 2017, the USFWS concurred with DOE's proposal to modify the habitat boundaries for the lower section of Water Canyon Mexican Spotted Owl AEI due to habitat degradation resulting from long-term drought and fire effects (USFWS consultation number 02ENNM00-2017-I-0255).

6.0 Data Management

The data used in the implementation of the HMP are stored in a geodatabase at LANL. The current map of all of the AEIs at LANL is in Figure A-1 in the appendix.

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 characteristics 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 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 deermice (*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, wildfires, 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 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, is 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 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).

LANS subject matter experts 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 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 chemicals of potential concern (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, LANS biologists 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. LANS biologists 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 that for Mexican Spotted Owls, 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 currently no specific information available on the reaction of Mexican Spotted Owls to explosives detonation. 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 trinitrotoluene(2,4,6-) (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 A-weighted decibel [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). LANS biologists 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). LANS biologists 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 that limit human activity and development in the canyon bottoms.

[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.

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. Noise is also 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 2016 Compliance Order on Consent issued by the New Mexico Environmental Department 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 Individual Permit (EPA 2010) issued by the Environmental Protection Agency 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. LANS biologists 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).

In December 1997, LANS biologists conducted noise measurements at the Los Alamos County airport and in Bayo and Pueblo canyons, including the Los Alamos County Sewage Treatment Facility. 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 3-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 3-minute period was 60 (range 41 to 70).

LANS biologists 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 (dB(C) scale (Keller and Foxx 1997). Measurements of noise levels using the dB(C) scale are greater than if measured using the dB(A) scale. 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.

LANS biologists measured sound levels from various pieces of construction equipment used at LANL project sites 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 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 level before construction began was 56.6 dB(A), and the average during construction was 82.1 dB(A).

LANS biologists 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 a 10 percent developed area in their buffers had significantly higher levels of background noise than undeveloped AEIs. The mean background sound level was 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.

LANS biologists 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 biological assessment 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.

LANS biologists took sound level measurements around the LANL Biosafety Level 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 Biosafety Level 3 laboratory 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 in 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. LANS biologists 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.

An updated Mexican Spotted Owl habitat model was developed and refined for application on LANL property 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 property, 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.

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

Occupancy simply refers to whether or not an AEI is occupied during a species' period of sensitivity. For Mexican Spotted Owls, the primary concern is to protect 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 LANS biologist 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

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. LANS biologists 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, LANS biologists 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 must be reported to LANS biologists for tracking (http://int.lanl.gov/environment/bio/controls/index.shtml).

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

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 area 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 LANS biologists 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

LANS biologists 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). LANS biologists 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. LANS biologists 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 biological assessment (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. LANS biologists 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 LANS biologists 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 LANS biologists 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

	Levels of Impact	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

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.

- Make every reasonable effort 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.
- Install signs on dirt roads and trails leading into AEIs labeling them as restricted access areas and provide a contact number 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.
- Employ appropriate erosion and runoff controls to reduce soil loss. The controls must be put in place and periodically checked throughout the life of projects.
- Revegetate all exposed soils as soon as feasible after construction to minimize erosion.
- Focus development away from undeveloped areas on the western end of the Los Alamos Canyon 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 redelineation of the habitats, and many have experienced additional development under past consultations. Many projects were reviewed and received USFWS concurrence between 1999 and 2017.

The current development status for each of the AEIs is at the end of each AEI description.

Cañon de Valle—In 1999, 16.3 ha (40.3 ac) of the core was developed and 52.2 ha (129 ac) of the 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 was developed, with most of the changes due to consultations. The 2017 redelineation of the lower Water Canyon AEI resulted in another reduction of 69 ha (170 ac). The current size of this AEI is 277 ha (685 ac) of core and 524 ha (1295 ac) of buffer habitat. Of that, 21 ha (52 ac) of the current core is developed and 71 ha (176 ac) of the current buffer is developed.

Pajarito—In 1999, 6.7 ha (16.5 ac) of the core was developed and 75.1 ha (186.5 ac) of the buffer was developed. For this AEI, it was recommended that only an additional 35 ha (86.4 ac) of the buffer be developed. The 1999 HMP stated that once the cap is reached or a single large-scale project is proposed, additional consultation with the USFWS would be required. By 2011,

27 ha (66.7 ac) of the core and 89 ha (220 ac) of the buffer was developed, with most of the changes due to consultations. The current size of this AEI is 236 ha (585 ac) of core and 449 ha (1,111 ac) of buffer habitat. Of that, 27 ha (67 ac) of the current core is developed and 89 ha (220 ac) of the current buffer is developed.

Los Alamos—In 1999, 77.16 ha (190 ac) of the core was developed and 167.2 ha (413.1 ac) of the buffer was developed. Because this AEI is heavily developed, additional development was restricted to a few selected areas within the buffer. By 2011, 94 ha (232.2 ac) of the core and 181 ha (447.3 ac) of the buffer was developed, with most of the changes due to consultations. The current size of this AEI is 325 ha (805 ac) of core and 535 ha (1,323 ac) of buffer habitat. Of that, 64 ha (158 ac) of the current core is developed and 129 ha (319 ac) of the current buffer is developed.

Sandia-Mortandad—In 1999, 29 ha (71.7 ac) of the core was developed and 75.1 ha (185.6 ac) of the buffer was developed. For this AEI, LANS biologists recommended only an additional 38.1 ha (94.1 ac) of the buffer be developed before additional USFWS consultations take place. By 2011, 45 ha (111.2 ac) of the core and 83 ha (205.1 ac) of the buffer was developed, with most of the changes due to consultations. The current size of this AEI is 270 ha (669 ac) of core and 371 ha (918 ac) of buffer habitat. Of that, 44 ha (110 ac) of the current core is developed and 83 ha (206 ac) of the current buffer is developed.

Three Mile—In 1999, 3.8 ha (9.4 ac) of the core was developed and 21.5 ha (51.1 ac) of the buffer was developed. For this AEI, LANS biologists recommended only 64.3 ha (158.8 ac) additional area of buffer be developed before additional USFWS consultations take place. By 2011, 12 ha (29.6 ac) of the core and 37 ha (91.4 ac) of the buffer was developed, with most of the changes due to consultations. The current size of this AEI is 131 ha (325 ac) of core and 295 ha (730 ac) of buffer habitat. Of that, 11 ha (29 ac) of the current core is developed and 36 ha (91 ac) of the current buffer is 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 2013 (78 FR 343). The most recent recovery plan for the Southwestern Willow Flycatcher was published 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 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 occupies an estimated 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 habitat loss and modification 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 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 at Cochiti Lake. There are other riparian/wetland areas on LANL property associated with canyon bottoms, the most significant being the Pajarito wetlands in the lower end of Pajarito Canyon. A major paved road parallels the wetlands area in Pajarito Canyon.

2.2.2 Ecological Risk

There is no specific information on the impact of chemicals on the Southwestern Willow Flycatcher.

2.2.2.1 Ecorisk Assessment

LANS subject matter experts completed two ecological risk assessments between 1997 and 2009 that included the Southwestern Willow Flycatcher. The ecological risk assessment process involves using computer modeling to assess potential effects to animals from chemicals of potential concern 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 chemicals of potential concern (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 available on the reactions of Southwestern Willow Flycatchers to pedestrians and vehicles. 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 available on the reaction of Southwestern Willow Flycatchers to aircraft.

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 available on the reaction of Southwestern Willow Flycatchers to explosives detonation. The Southwestern Willow Flycatcher AEI is not located close to any explosives testing sites at LANL.

2.2.3.4 Other Sources of Noise

LANS biologists 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 available on the effects of artificially produced light on Southwestern Willow Flycatchers. 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 the 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 property 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

There is one Southwestern Willow Flycatcher AEI on LANL property. 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.

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) that have 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

Occupancy simply refers to whether or not an AEI is occupied during a species' period of sensitivity. For Southwestern Willow Flycatchers, LANS biologists 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. The Activity Table (Table 2, Section 4.5.2) 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 LANS biologist 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

Sections 4.4 and 4.5 provide the guidelines for habitat alterations and allowable activities in AEI core and buffer areas. The flowchart (see Figure 1) provides a quick reference that should be used to determine if 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. LANS biologists 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 over the long term 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. 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.

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 2, Section 4.5.2) for occupied AEIs.

4.4.4 Restrictions on Habitat Alterations

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 LANS biologist 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

LANS biologists 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 United States 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

The dates shown in the Activity Table (Table 2) are the dates between which the activity in the row is restricted under the guidelines of this site plan. 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 LANS biologist (http://int.lanl.gov/environment/bio/controls/index.shtml).

Table 2. Restrictions on Activities in Undeveloped Occupied Southwestern Willow Flycatcher AEI

	Levels of Impact	Core	Buffer
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

This section provides a list of management practices to apply in the AEI.

- No wetland vegetation will be removed outside of developed areas.
- Employ appropriate erosion and runoff controls 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.
- Revegetate all exposed soils 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. LANS biologists 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), LANS biologists 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 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 (77 FR 56481) and the final listing as endangered was on September 10, 2013 (78 FR 55599).

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; 78 FR 9876).

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 (77 FR 56481). 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 (78 FR 9876).

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 (77 FR 56482).

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 that 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 (77 FR 56482). Forested habitats on LANL property 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 (77 FR 56482). 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 (77 FR 56482).

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 Salamanders 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 the 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 AEIs 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: 2,150 m (7,000 ft) 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, LANS biologists 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 from fire and extreme drought effects since this landcover map was published. 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 LANS biologists 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 were hand digitized using ArcGIS (Environmental Science Research Institute, Redlands, California) by LANS biologists 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 footprint.

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 LANS biologists.

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 LANS biologists 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 LANS biologists 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 LANS biologist (505-665-3366) as soon as possible. If the emergency occurs outside of regular business hours, contact the Emergency Management Office (505-667-6211). This office will then communicate with the appropriate LANS 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. LANS biologists are 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 LANS biologists.

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 (77 FR 56482), 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 LANS biologists. 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). LANS biologists 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 LANS biologists 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

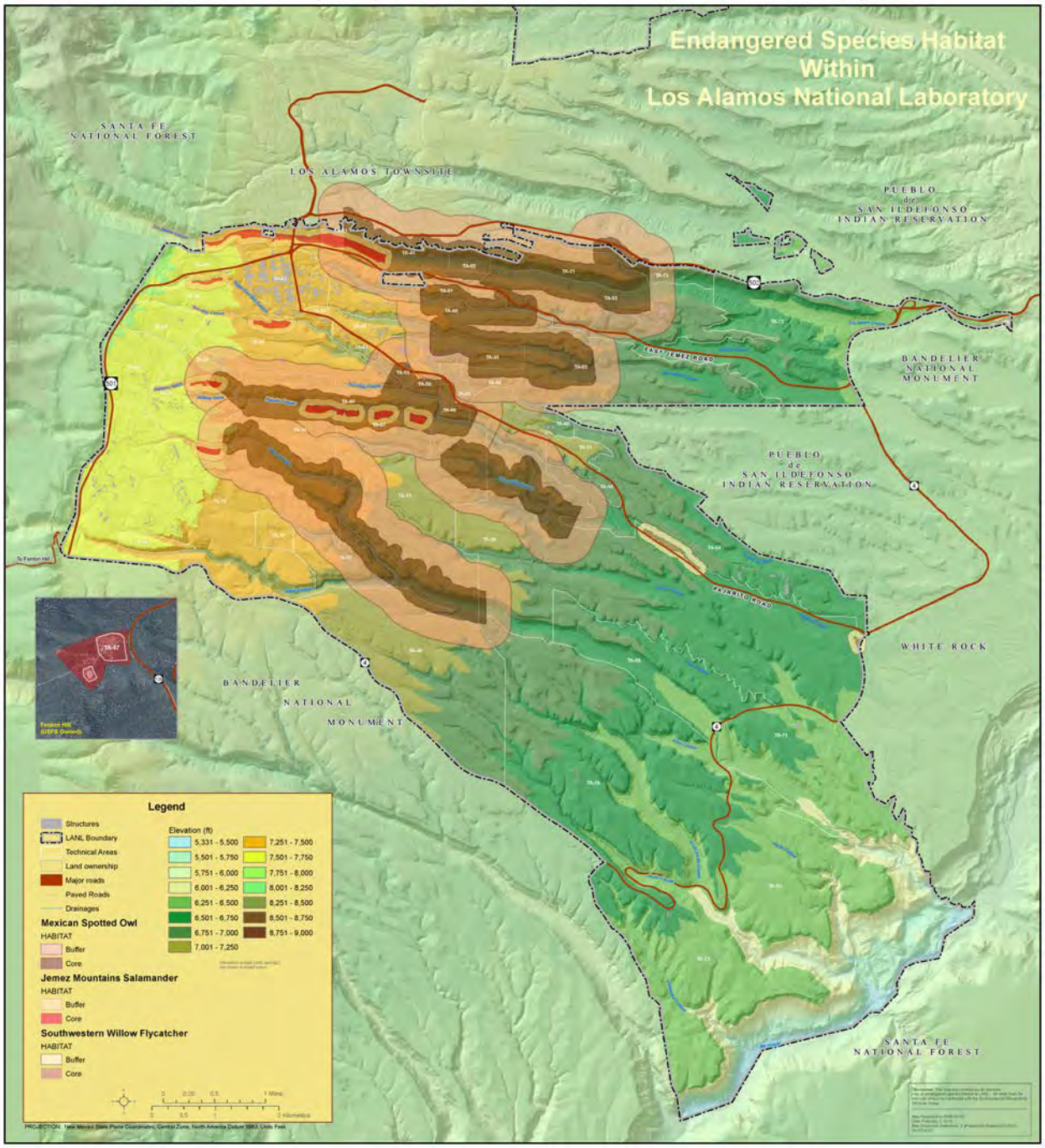


Figure A-1. Most recent map of all AEIs at LANL

Attachment 14: **MSGP IPAC TRUST RESOURCES REPORT**

NOTE: The Permit requires this information. However, LANL EPC-ES has completed consultation with U.S. Fish and Wildlife Service. Letters of Consultation are contained in the NOI (see Attachment 1). Refer to Attachment 13 for the species habitat management plan.

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

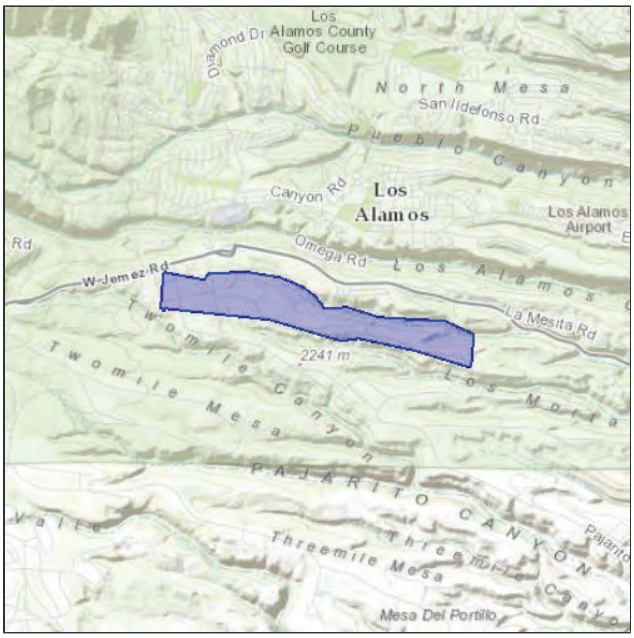
LXATM-TI5EJ-BAJEQ-3NC5E-SOGYTE

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

Attachment 15: **ENV-CP-QAPP-MSGP**

The ENV-CP Quality Assurance Project Plan is in the process of being replaced by EPC-CP-PIP-2101, *NPDES Multi-Sector General Permit*. The current document, ENV-CP-QAPP-MSGP R5, is included in the attachment and will be replaced in the hard copy of the SWPPP once the new document is completed.

ENV-CP-QAPP-MSGP, R5	
Effective Date: 11/04/2013	Next Review Date: 11/04/2015

Los Alamos NATIONAL LABORATORY EST.1943

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:
	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.

Table of Contents

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

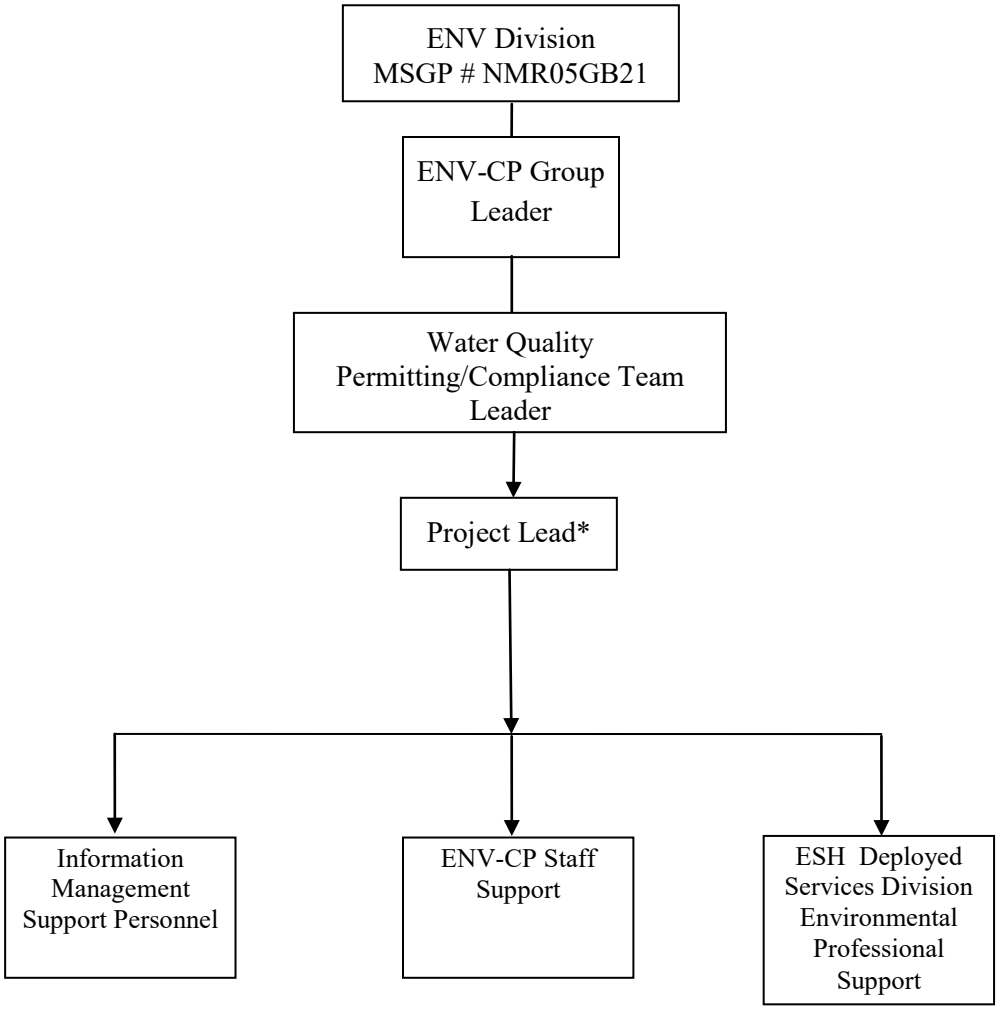
Attachment 5 – Pollutants under Impaired Waters Monitoring

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.:

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 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

Attachment 16: **EPC-CP-QP-023,** ***MSGP ROUTINE FACILITY INSPECTIONS***

EPC-CP-QP-023	Revision: 1	
Effective Date: 03/07/2019	Next Review Date: 03/07/2022	

Environment, Safety, Health, Quality, Safeguards, Security Directorate

Environmental Protection and Compliance Division – Compliance Programs

Quality Procedure

MSGP Routine Facility Inspections

Document Owner/Subject Matter Expert:

Name:	Organization:	Signature:	Date:
Holly L. Wheeler	EPC-CP	Signature on File	3-6-19

Derivative Classifier: ☒ **Unclassified** ☐ _____

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Responsible Line Manager	Organization	Signature:	Date:
Taunia S. Van Valkenburg	EPC-CP Group Leader	Signature on File	3-7-19

REVISION HISTORY

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EPC-CP-QP-023 R0	05/17/2018	New Document. Process formerly part of procedure ENV-RCRA-QP-022 R2, *MSGP Corrective Actions*.
EPC-CP-QP-023 R1	03/07/2019	Added question to inspection form, associated text to document, and renumbered steps. Removed reference to Los Alamos National Security, LLC. Added reference to LANL BMP Manual. Minor edits made.

Table of Contents

1.0 INTRODUCTION

The National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP), also referred to as the permit, contains specific environmental requirements for inspecting areas of Los Alamos National Laboratory (LANL) covered by the permit. This includes areas where industrial materials or activities are exposed to stormwater, areas identified as potential pollutant sources, areas where leaks and spills have occurred in the past three years, discharge points, and control measures used to comply with the effluent limits of the MSGP.

LANL inspectors and facility personnel are required to perform routine facility inspections for industrial stormwater discharge on LANL areas covered by the MSGP at least quarterly and document observations. Conditions (as described by the MSGP) found during an inspection, requiring a corrective action(s), are managed through EPC-CP-QP-022, *MSGP Corrective Actions*.

1.1 Purpose

Parts 3.1 and 3.1.2 of the MSGP contain specific requirements for conducting and documenting periodic industrial routine facility inspections. This procedure governs the activities of LANL personnel involved in conducting industrial routine facility inspections. It also contains information and specific steps to be used for identifying and documenting conditions in order to meet the permit requirements.

1.2 Scope

Requirements set forth in this document apply to LANL personnel responsible for meeting the permit conditions on behalf of LANL industrial facilities covered by the MSGP. The MSGP requires periodic inspection of facilities and identification, documentation, and reporting of conditions, including those requiring corrective actions.

Inspections conducted under this procedure are 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 the inspection.)

1.3 Applicability

This procedure applies to Environmental Protection and Compliance-Compliance Programs (EPC-CP) technical staff, Deployed Environmental Professionals (DEPs), and subcontractor personnel (as applicable) who conduct inspections and monitoring activities at MSGP regulated LANL facilities.

2.0 ROLES AND RESPONSIBILITIES

Specific roles and responsibilities for implementation of requirements contained in the MSGP are provided below.

2.1 EPC-CP MSGP Stormwater Permitting and Compliance Team

EPC-CP MSGP Stormwater Permitting and Compliance personnel are fully knowledgeable of the specific regulatory requirements identified in the MSGP and are responsible for the following:

- Implementing this procedure;
- Performing routine facility inspections the last month or quarter of the year at regulated sites [depending on inspection frequency identified in site-specific Stormwater Pollution Prevention Plans (SWPPPs)];
- Performing “no exposure” site inspections once a year to ensure conditions of the “no exposure” exclusion are met;
- Performing routine facility inspections at inactive sites once a year;
- Identifying issues requiring a corrective action during any of the above inspections or assessments;
- Determining a condition of non-compliance;
- Notifying managers, or legal counsel of non-compliances;
- Modifying the site-specific MSGP Routine Facility Inspection Form to add new Best Management Practices (BMPs) or decommission retired ones;
- Training personnel to use MC Express;
- Performing a quality review of routine facility inspections and “no exposure” site inspections submitted in Maintenance Connection (MC); and
- Assisting customers with issues associated with MC Express.

2.2 Deployed Environmental Professionals

DEPs are responsible for the following:

- Implementing this procedure;
- Being educated (i.e., knowledgeable) of the requirements contained in site-specific SWPPPs within their assigned Facility Operations Directorate (FOD);
- Meeting qualification requirements identified in the Quality Assurance Project Plan EPC-CP-QAPP-MSGP, *Stormwater Multi-Sector General Permit for Industrial Activities Program*;
- Being trained on EPC-CP-QP-022, *Multi-Sector General Permit (MSGP) Corrective Actions;*
- Being trained on *MSGP Routine Inspections OJT*;
- Being familiar with industrial site and facility operations assigned to them so that they minimize sources of pollutants and pro-actively maintain controls to prevent issues that require corrective action;

- Performing routine facility inspections, either monthly or quarterly throughout the year at regulated sites within their FOD (depending on inspection frequency identified in site-specific SWPPPs) and documenting results accurately;
- Acting as liaison between the FOD, Deployed Environment, Safety, and Health (DESH) Manager and facility/operations personnel to ensure corrective actions are addressed appropriately by overseeing maintenance and/or installation of additional controls;
- Educating appropriate facility/operations personnel on the MSGP and site-specific SWPPPs so they successfully implement the conditions of the permit; and
- Notifying EPC-CP MSGP stormwater personnel when additional or substitute BMPs have been installed or old BMPs have been removed so the site-specific MSGP Routine Facility Inspection Form can be modified.

2.3 EPC-CP Stormwater Permitting and Compliance Team Leader

The EPC-CP Stormwater Permitting and Compliance Team Leader is responsible for compliance oversight relative to the MSGP. The Team Leader ensures adequate resources needed to implement the regulatory requirements identified in the MSGP are identified and environmental risks are assessed. The Team Leader will notify upper management of these required resources or environmental risks, as deemed necessary. In the event there is a dispute regarding the regulatory requirements contained in the MSGP, the Team Leader makes the final determination of the required action. The Team Leader notifies upper management of instances of non-compliance with the permit.

2.4 EPC-CP Group Leader

The EPC-CP Group Leader or designee is responsible for ensuring there are adequate resources to implement the regulatory requirements identified in the MSGP. The Group Leader or Team Lead also acts as the duly authorized signatory that certifies the Annual Report, MSGP Routine Facility Inspections, or “no exposure” site inspections conducted by EPC-CP personnel. The Group Leader notifies upper management of instances of non-compliance with the permit or other identified environmental risk.

2.5 DESH Manager

The DESH manager works with programmatic entities and the FOD to identify adequate resources for their industrial facilities to ensure permit requirements can be implemented. The DESH Manager is responsible for the performance of DEPs under their management and to ensure DEPs are trained and qualified. They also provide oversight by ensuring that industrial facilities complying with the MSGP and will notify upper management of instances of non-compliance with the permit or other identified environmental risk.

3.0 PRECAUTIONS AND LIMITATIONS

The hazard rating for the activities described in this procedure is **LOW** and therefore, does not require an IWD.

Field 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).

4.0 PREREQUISITE ACTIONS

4.1 Planning and Coordination

1. Schedule work to be completed by the target date appearing on the inspection form or as requested by the MSGP program lead if an inspection form is not issued.
2. Inform (e.g., by e-mail) facility contacts (as needed) of the schedule for facility 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 (as necessary).
3. Obtain any necessary additional paperwork before conducting this work, including SWPPPs and maps (as necessary).

4.2 Tools and Equipment

Ensure the following equipment is available.

- Sturdy hiking boots or steel toed shoes with soles that grip and other facility specific PPE as needed.
- Cell phone (Only government cell phones are allowed in secure areas. See https://int.lanl.gov/policy/documents/P217.pdf for requirements for using portable electronic devices on Laboratory property.)
- Copy of this procedure.
- Copy of facility specific SWPPP and map(s) (as needed).
- Current electronic or paper inspection form EPC-CP-Form-1020, *MSGP Routine Facility Inspection.*
- LANL issued tablet or notebook style computer with Safari web browser and Blackberry UEM™ app (see https://int.lanl.gov/policy/documents/P217.pdf for requirements for using portable electronic devices on Laboratory property).
- Necessary access keys.

5.0 MSGP ROUTINE FACILITY INSPECTIONS

MSGP routine facility inspections are conducted by the DEP or other qualified facility personnel (as defined in the MSGP or as determined by MSGP program lead) during periods when the facility is in operation and during standard operating hours. The inspections are performed on the following facility areas:

- 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 past;
- Discharge points; and
- Control measures used to comply with the effluent limits contained in the MSGP.

Routine facility inspections are conducted at least quarterly; however, some facilities may conduct monthly inspections (as specified in the facility specific SWPPP). At least once each calendar year, the routine facility inspections must be conducted during a period when stormwater discharge (either rain or snow) is occurring. During the inspection, you must look for the following:

- 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, 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 that need replacement, maintenance or repair.

Conditions requiring corrective action identified during an inspection, monitoring, or other means must be entered into the MSGP Corrective Action Report database by the DEP(s), EPC-CP stormwater personnel and/or other qualified facility personnel (as defined in the MSGP or as determined by MSGP program lead). Follow the process in EPC-CP-QP-022, *MSGP Corrective Actions* to address issues found during an inspection.

If the industrial facility is inactive and unstaffed and there are no industrial materials or activities exposed to stormwater, routine inspections may not be required. A determination of whether a facility is inactive or unstaffed is made in coordination with stormwater personnel from EPC-CP, as there are specific documentation and certification requirements that have to be met prior to discontinuing routine inspections. Such a facility is only required to conduct an annual site inspection.

If the industrial facility is eligible for a "no exposure" exclusion, routine inspections are no longer required. A condition of "no exposure" exists when all industrial materials and activities are protected by a storm resistant shelter (e.g., moved to an indoor location) to prevent exposure to rain, snow, snowmelt, and/or runoff. A determination of whether a facility is eligible for "no exposure" status is made in coordination with stormwater personnel from EPC-CP, as there are specific documentation and certification requirements that have to be met prior to discontinuing routine inspections. Such a facility is only required to conduct an annual site evaluation and recertification every five years.

5.1 Conducting the Inspection

See Attachment 1 for screen shot examples of EPC-CP-Form-1020, *MSGP Routine Facility Inspection* in MC Express. See Attachment 2 for an example of the inspection form in hard copy format.

Some terminology varies between the MC Express software and the MC desktop software. 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. MC desktop and hard copy (printed) work orders use "Yes" and "No" terminology.

If the inspector needs space, additional comments can be entered in the "Labor Report" field (see Section 5.2) when the work order is updated to "Complete" status in MC Express. If completing a hard copy enter additional comments in the "Labor Report" field at the bottom of the form.

1. Use the Internet Explorer web browser on a tablet or similar portable computer and navigate to http://express.maintenanceconnection.com. Log into the MC Express application using your login credentials.
2. Open the inspection form for the location to be inspected and select "Tasks" to navigate to the Tasks page.

   ***NOTE 1*:** Each item number listed in red font below corresponds to a numbered box on both screen shots (Attachment 1) and hard copy format (Attachment 2).
3. Item 1: Observe the weather at time of inspection. Document the weather and temperature in the "Comments" field. Document this task is or is not completed by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes".

   CAUTION
   Click the "Save" bar after entries for a task line have been completed and before proceeding to the next question. Failure to "Save" results in lost data entries.
4. Item 2: Observe and document the facility is free of **new** discharges of pollutants **since the last inspection** 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 new discharges and the specific location in the "Comments" field of the task line.
5. Item 3:

   IF the response to Item 2 is "Complete"
   THEN click the expand arrow located on the right side of this task line and change the "N/A" line to "Yes".

   OR

   IF the response to Item 2 is "Failed",
   THEN document any corrective action previously initiated for the discharge by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes".

6. Item 4: Observe and document the facility is free of discharges of pollutants at the time of inspection 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 pollutant discharge and the specific location in the "Comments" field of the task line.

7. Item 5: Observe and document the facility is free of evidence of pollutants entering the drainage system OR the potential for pollutants entering the drainage system 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 discharge or potential discharge and the specific location in the "Comments" field of the task line.

8. Item 6: Observe and document the outfall does not have any **new** evidence of erosion **since the last inspection** 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 erosion observed in the "Comments" field of the task line.

9. Item 7: Observe and document all flow dissipation devices are operating effectively and are not in need of repair 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 non-functional status of devices in the "Comments" field of the task line.

10. Item 8: Observe and document the outfall is free of evidence of pollutants in the discharge and/or the receiving water 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 pollutants observed in the "Comments" field of the task line.

11. Item 9: Observe and document the outfall is free of unauthorized non-stormwater discharges 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 unauthorized discharges observed in the "Comments" field of the task line.

12. If the location has more than one outfall, complete Steps 8 through 11 for each outfall shown on the work order.

13. Item 10: Observe and document each control measure is operating effectively 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 non-operational condition of the control measure (e.g., erosion, damage, etc.) and if the control measure needs maintenance, repair, or replacement in the "Comments" field of the task line.

    NOTE 2: If the DEP or EPC-CP MSGP stormwater personnel determine that additional controls are necessary, or that existing controls are insufficient and require replacement with a different type of control, the DEPs are responsible for the selection and oversight of proper installation of appropriate control measures per guidance provided in the LANL Stormwater BMP Manual.

14. **IF** the location has more than one control measure,
    THEN complete Step 13 for each control measure shown on the work order.

15. Item 11: Observe and document each sector of NPDES specified industrial area/activity (e.g., metal fabrication; foundry operations; power generation; asphalt production; fabricating timber products; material recycling; warehouse and transportation activity; treatment and storage of hazardous waste) is inspected for exposure to stormwater. Document by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes".

    Determine if the control measures associated with each industrial area/activity are appropriate for the activity, effectively controlling stormwater exposure, and operating. Describe any non-operational condition of the control(s) and needed maintenance or a description of corrective actions in the "Comments" field of the task line.

16. **IF** the facility has more than one sector of NPDES specified industrial area/activity, **THEN** complete Step 15 for each industrial area/activity shown on the work order.

    For industrial activities that do not apply to the facility, click the expand arrow located on the right side of the task line and change the "N/A" line to "Yes".

17. Item 12: Observe and document the facility is free of discharges of any non-compliance not documented elsewhere on the inspection form 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 additional incidences of non-compliance in the "Comments" field of the task line.

18. Item 13: Observe and document the facility meets the MSGP requirements with existing control measures by clicking the expand arrow located on the right side of the task line and change the "Complete" to "Yes". If additional control measures are needed to comply with the Permit, click the expand arrow located on the right side of the task line and change the "Failed" to "Yes" and describe the control measures in the "Comments" field of the task line.

19. When all task lines have been completed, make sure you have clicked the "Save" bar at the bottom of the page.

20. 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.

    Always log out of MC Express when you have finished work OR if work is interrupted.

5.2 Completing the Inspection Form in MC Express

See Attachment 1 for screen shot examples of EPC-CP-Form-1020, *MSGP Routine Facility Inspection* in MC Express.

1. 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.

2. Item 14: 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 on-site **field inspection was completed** (not the date/time the form was filled out).

   IF these fields need to be updated,
   THEN

   [a] Click the "Date" field to open the pop-up window.

   [b] Make necessary adjustments using the timestamp application.

   [c] Click "Set" to apply changes.

3. Item 15: The inspector types 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 be documented in the "Labor Report Update" section.

4. 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.

5. Item 16: Capture an electronic signature by drawing with a finger on the tablet screen. The field 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 is used to draw a signature.

6. Click on the "Save" bar at the bottom of the page to close the "Signature" field.

7. Click on the "Back" button located in the upper left hand corner to return to the "My Open Work Orders" page.

8. Once you have completed an inspection, click on the Menu button again, and then click the "Logout" bar. Close the browser. All work will be 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 interrupted.

5.3 Completing the Inspection Form on Hardcopy

See Attachment 2 for an example of EPC-CP-Form-1020, *MSGP Routine Facility Inspection* in hard copy format.

1. Item 14: Write in the date and time the **inspection was completed** and ***not* the date/time the form was filled out**.

   IF an inspection needs to be performed over multiple days,
   THEN note the date and time the inspection began in the Labor Report field.

2. Item 15: The field inspector prints his/her name.

3. The field inspector reviews the inspection form for accuracy.

IF a correction or update is needed,
THEN the inspector will draw a single line through the information to be updated, write in the new information, and add his/her initials and the date the information was updated.

4. Item 16: The field inspector certifies that the information submitted is "true, accurate, and complete" by signing his/her name and dating when the form was signed.

5.4 Completing the Certification Statement

Follow Steps 1 through 5 in this section if the inspection form was completed electronically (see Attachment 1). If the inspection form was completed on a hard copy form, skip to Step 6.

1. Using the Internet Explorer web browser on a desktop computer, navigate to http://www.maintenanceconnection.com. Log into the MC desktop application using your login credentials.
2. Click "Open" in the tool bar at the top of the page to open the MC module selections. Click on the "Work Orders" module.
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 17: Obtain a printed name and title, signature, and date on the certification statement. The routine facility inspection form must be certified with a signature from a manager that meets the definition of a signatory in MSGP Permit Section B.11.A (e.g., FOD, Operations Manager, DSESH Group Leader, EPC-CP Group Leader, EPC-CP Team Lead). The manager is certifying the information submitted is "true, accurate, and complete" by signing the form.

   The certification statement will be signed no more than 14 days after completion of the inspection.
7. Attach the completed, signed, and certified inspection form to the facility SWPPP.

6.0 TRAINING

The following personnel require training before implementing this procedure.

- DESH Group and Team Leaders
- EPC-CP MSGP stormwater compliance personnel
- DEPs

- Other LANL or subcontract personnel identified as being required to conduct stormwater assessments as part of their job duties

For EPC-CP staff, the training method for this procedure is "self-study" (required 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.

- EPC-CP QAPP-MSGP *Quality Assurance Project Plan for the Stormwater Multi-Sector General Permit for Industrial Activities*
- EPC-CP-QP-022, *MSGP Corrective Actions*
- *MSGP Routine Inspections OJT*

7.0 RECORDS

MSGP Routine Facility Inspection forms are signed and certified by individual facilities. These completed forms are maintained in the facility's SWPPP and managed by the facility's document management system. The MSGP team may obtain a copy for reference purposes.

8.0 DEFINITIONS AND ACRONYMS

See LANL *Definition of Terms*.

8.1 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.

8.2 Acronyms

See LANL Acronym Master List.

BMP	Best Management Practice
EPC-CP	Environmental Protection and Compliance – Compliance Programs
DEP	Deployed Environmental Professional
DESH	Deployed Environment, Safety, and Health
IWD	Integrated Work Document
FOD	Facility Operations Director
LANL	Los Alamos National Laboratory
MC	Maintenance Connection

MC Express	Maintenance Connection Express
MSGP	Multi-Sector General Permit
NPDES	National Pollutant Discharge Elimination System
SWPPP	Stormwater Pollution Prevention Plan

9.0 REFERENCES

Federal Register, Final National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Industrial Activities. Federal Register: June 16, 2015, Volume 80, Number 115.

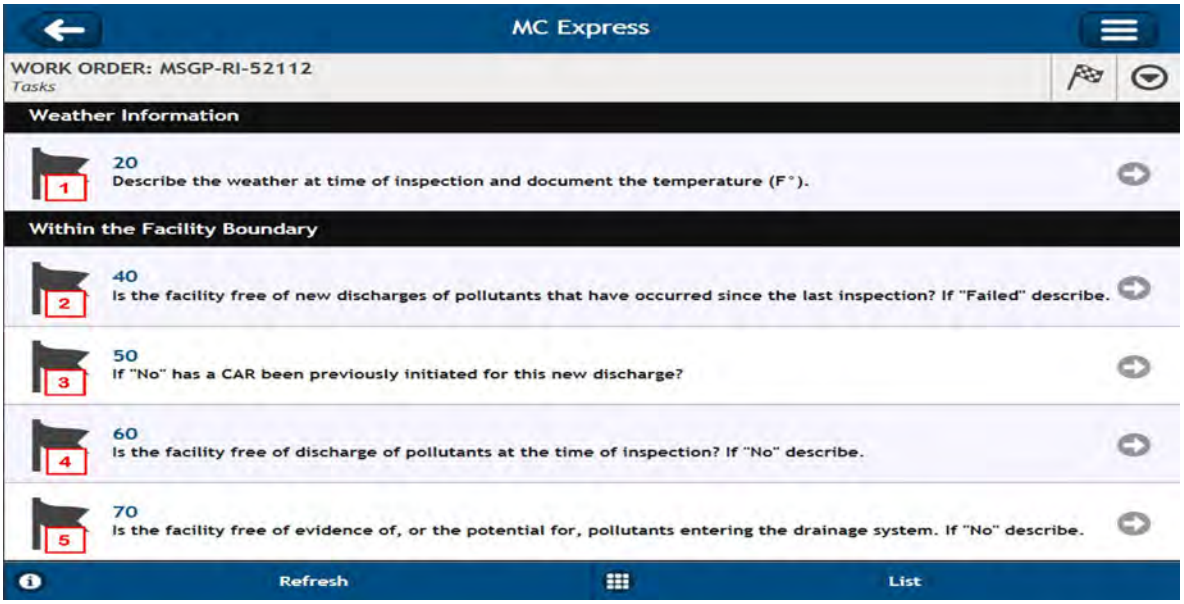
Los Alamos National Laboratory Storm Water BMP Manual.

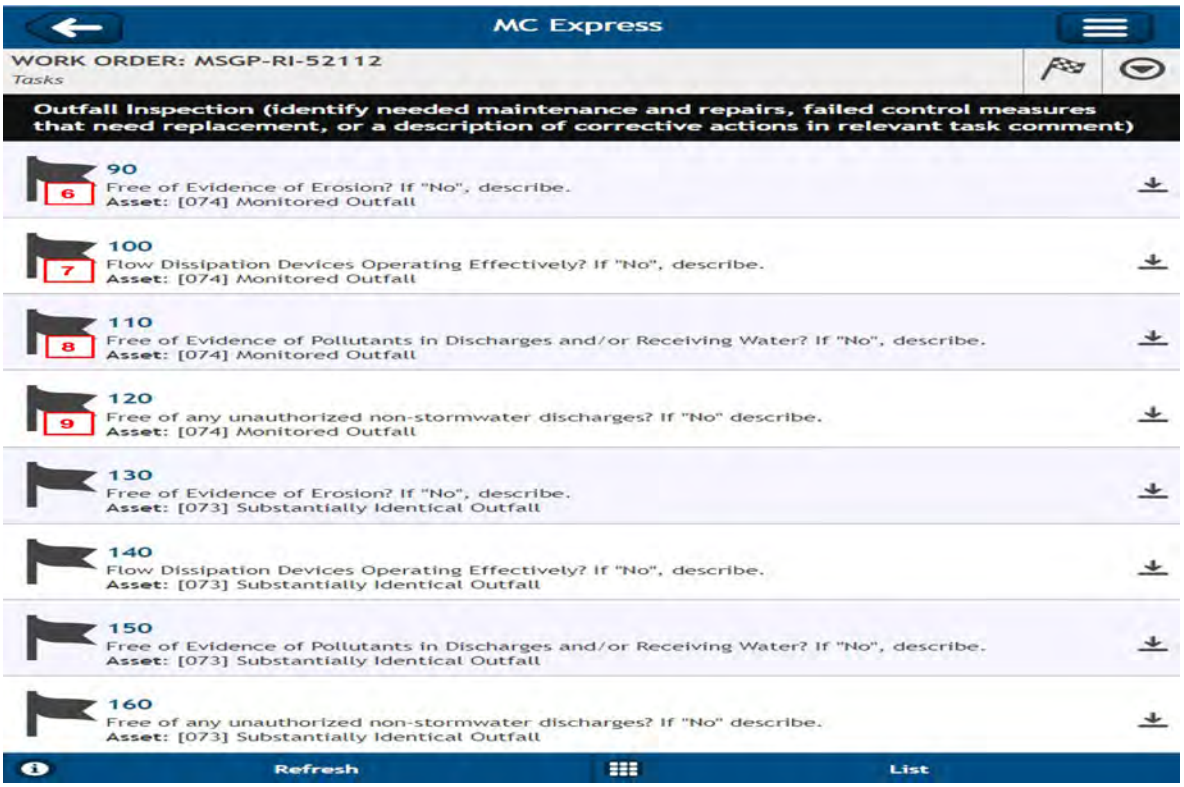
10.0 ATTACHMENTS

Attachment 1: Screenshot Examples of EPC-CP-Form-1020, MSGP Routine Facility Inspection in MC Express

Attachment 2: EPC-CP-Form-1020, MSGP Routine Facility Inspection Hard Copy *Example*

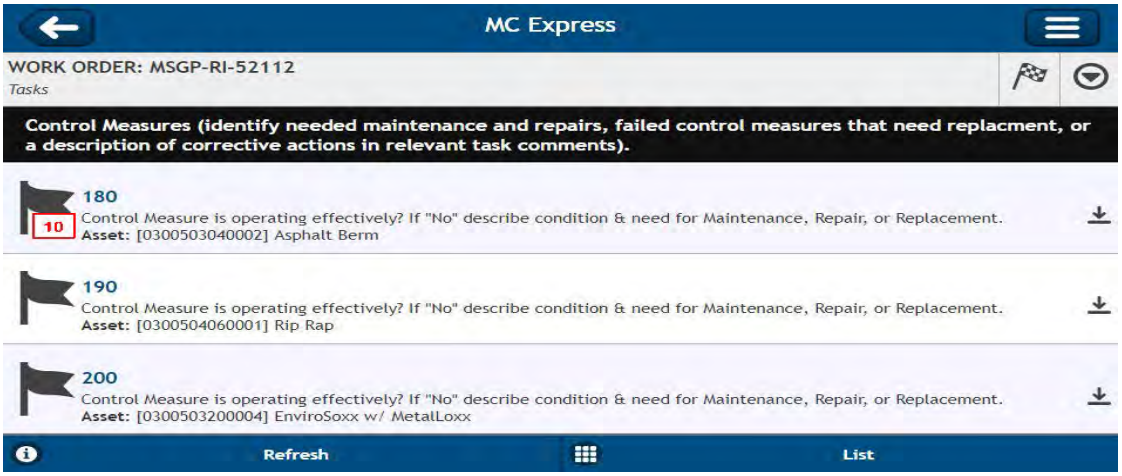
Attachment 1: Screenshot ExampleS of EPC-CP-Form-1020, *MSGP Routine Facility Inspection* in MC Express

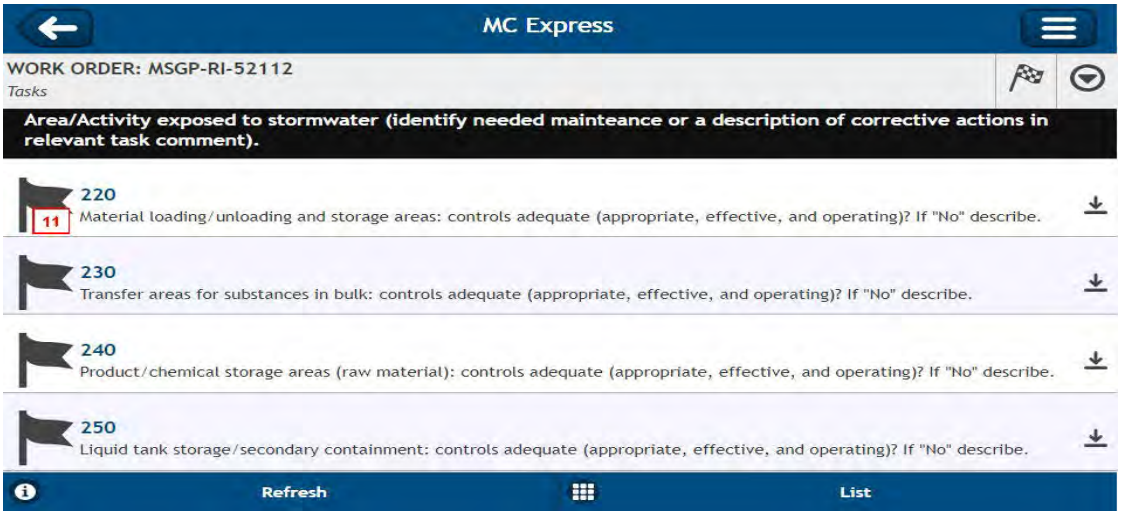


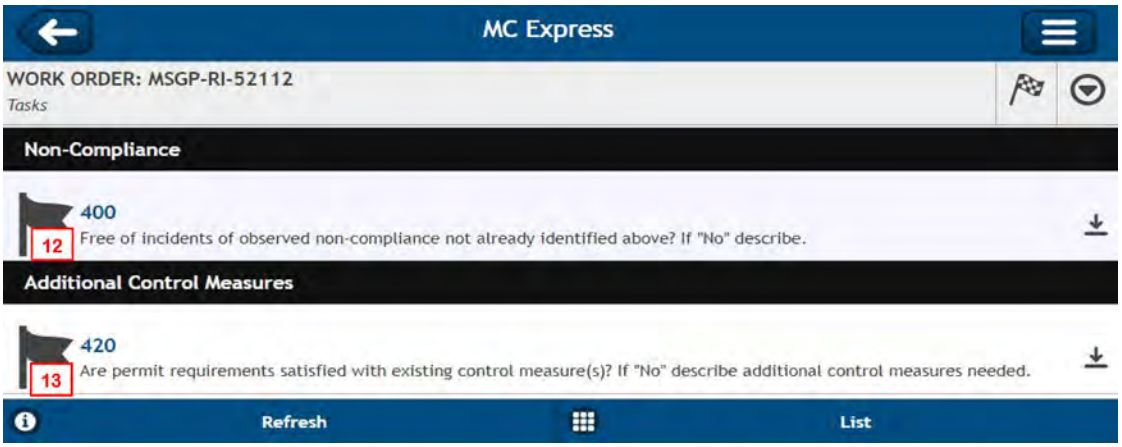


Attachment 1: Screenshot ExampleS of EPC-CP-Form-1020, *MSGP Routine Facility Inspection* in MC Express (cont.)

Page 2 of 3

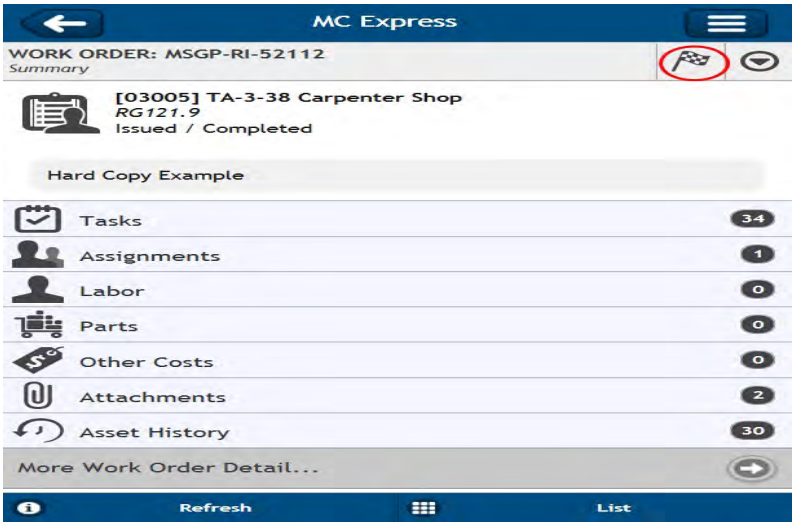


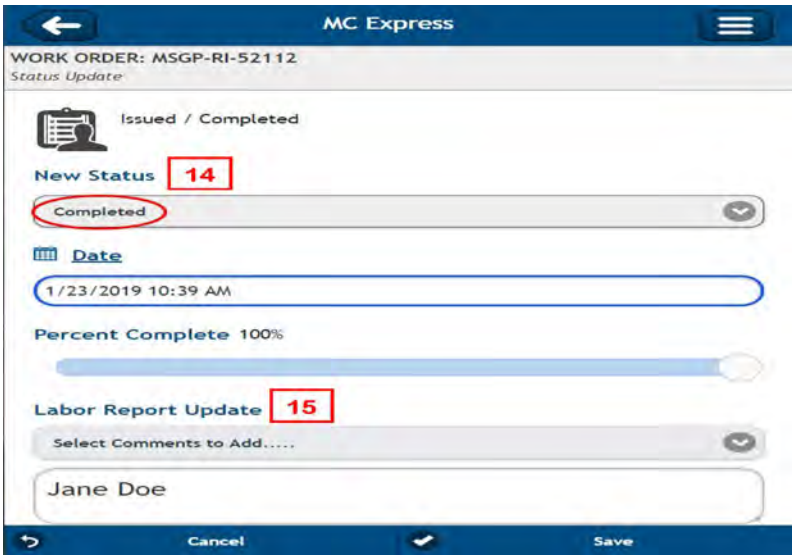




Attachment 1: Screenshot ExampleS of EPC-CP-Form-1020, *MSGP Routine Facility Inspection* in MC Express (cont.)

Page 3 of 3





Attachment 2: EPC-CP-Form-1020, *MSGP Routine Facility Inspection* Hard Copy Example

Los Alamos National Laboratory

Work Order MSGP-RI-52112
MSGP Routine Inspection
Printed 1/23/2019 - 12:45 PM (Duplicate Copy)

Maintenance Details

Requested By: Admin, Jane on 1/23/2019 12:30:00 PM
Taken By: Banar, Alethea
Procedure: MSGP Routine Facility Inspection (EPC-CP-Form-1020.2)
Last PM: N/A
Target: 12/31/2020
Priority/Type: / Inspection
Department: Utilities and Infrastructure
MSGP Program
RG121.9
TA-3-38 Carpenter Shop
Contact: Admin, Jane
Phone: 123-4567
Reason: Example MSGP Routine Facility Inspection

Tasks

	#	Description	Meas.	No	N/A	Yes
		Weather Information				
1	20	Describe the weather at time of inspection and document the temperature (F°).		☐	☐	☐
		Within the Facility Boundary				
2	40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "Failed" describe.		☐	☐	☐
3	50	If "No" has a CAR been previously initiated for this new discharge?		☐	☐	☐
4	60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		☐	☐	☐
5	70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		☐	☐	☐
		Outfall Inspection (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)				
6	90	**Monitored Outfall [074]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☐
7	100	**Monitored Outfall [074]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☐
8	110	**Monitored Outfall [074]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☐
9	120	**Monitored Outfall [074]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☐
	130	**Substantially Identical Outfall [073]** Free of Evidence of Erosion? If "No", describe.		☐	☐	☐
	140	**Substantially Identical Outfall [073]** Flow Dissipation Devices Operating Effectively? If "No", describe.		☐	☐	☐
	150	**Substantially Identical Outfall [073]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		☐	☐	☐
	160	**Substantially Identical Outfall [073]** Free of any unauthorized non-stormwater discharges? If "No" describe.		☐	☐	☐
10		**Control Measures (identify needed maintenance and repairs, failed control measures that need replacment, or a description of corrective actions in relevant task comments).**				
	180	**Asphalt Berm [0300503040002]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☐
	190	**Rip Rap [0300504060001]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☐
	200	**EnviroSoxx w/ MetalLoxx [0300503200004]** Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		☐	☐	☐
11		**Area/Activity exposed to stormwater (identify needed mainteance or a description of corrective actions in relevant task comment).**				
	220	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☐
	230	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☐

Attachment 2: EPC-CP-Form-1020, *MSGP Routine Facility Inspection* Hard Copy EXAMPLE (cont.)

Page 2 of 3

240	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☐
250	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☐
260	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☐
270	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☐
280	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☐
290	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☐
300	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☐
310	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☐
320	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☐
330	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☐
340	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☐
350	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☐
360	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☐
370	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☐
380	**Sector A [03005-]** Wood processing, transport or treated wood storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		☐	☐	☐
	Non-Compliance				
12 400	Free of incidents of observed non-compliance not already identified above? If "No" describe.		☐	☐	☐
	Additional Control Measures				
13 420	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.		☐	☐	☐

Labor Report

14 **Completed:** 1/23/2019 10:39:00 AM

15 **Report:** [Additional notes, observations, or site conditions not documented in Task Line Comments field]

Jane Doe

16 Jane Doe — Signature / Name: 1/23/2019 — Date: _____ Signature / Name: _____ Date: _____

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

EPC-CP-Form-1020.2 01/2019

Attachment 2: EPC-CP-Form-1020, *MSGP Routine Facility Inspection* Hard Copy EXAMPLE (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, DESH Group Leader, EPC Group Leader)

17 Print name and title:_____

Signature:_____ Date:_____

EPC-CP-Form-1020.2 01/2019

Attachment 17: **EPC-CP-QP-023, *MSGP CORRECTIVE ACTIONS***

EPC-CP-QP-022	Revision: **3**	
Effective Date: 12/20/2018	Next Review Date: 12/20/21	

Environment, Safety, Health, and Quality, Safeguards and Security Directorate

Environmental Protection and Compliance Division – Compliance Programs

Quality Procedure

MSGP Corrective Actions

Document Owner/Subject Matter Expert:

Name:	Organization:	Signature:	Date:
Holly Wheeler	EPC-CP	Signature on File	12-19-18

Derivative Classifier: ☒ **Unclassified**

Name:	Organization:	Signature:	Date:
Jacob Meadows	EPC-CP	Signature on File	12-19-18

Approval Signatures:

Subject Matter Expert:	Organization:	Signature:	Date:
Holly Wheeler	EPC-CP	Signature on File	12-19-18
Responsible Line Manager:	Organization:	Signature:	Date:
Terrill Lemke	EPC-CP Team Leader	Signature on File	12-20-18
Responsible Line Manager	Organization	Signature:	Date:
Taunia Van Valkenburg	EPC-CP Group Leader	Signature on File	12-20-18

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]*
0	08/10	New Document.
1	11/10	Incorporated EPC-CP-QP-062 *MSGP Routine Inspections* into this document.
2	01/13	Biennial revision, new template implemented.
EPC-CP-QP-022 R3	12/202018	Revision to reflect new 2015 MSGP requirements. New procedure format was used and organizational changes made. This document replaces ENV-RCRA-QP-022, R2, which was split into EPC-CP-QP-023, R0, MSGP Industrial Stormwater Routine Facility Inspections, and EPC-CP-QP-022, R3, MSGP Corrective Actions.

Table of Contents

1.0 INTRODUCTION

The National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP) contains specific environmental requirements for identifying, implementing, documenting and reporting conditions requiring corrective actions. Laboratory personnel (the Deployed Environmental Professionals (DEPs) and Environmental Protection and Compliance Division – Compliance Programs (EPC-CP) Storm Water Team (also referred to as EPC-CP MSGP stormwater personnel) are required to perform routine facility inspections and document all conditions requiring corrective actions found on an inspection form (see EPC-CP-QP-023). Conditions requiring corrective actions can be identified during facility walk-downs, normal daily operations, and/or analytical data evaluations, and can be identified by facility personnel, the DEP or EPC-CP MSGP stormwater personnel.

1.1 Purpose

This procedure governs the activities of Laboratory personnel working at Los Alamos National Laboratory (LANL) involved in identifying, implementing, documenting and entering a condition requiring corrective action, including a permit limit exceedance, into the MSGP Corrective Action Report (CAR) Findings database or CAR database. Part 4.4 of the MSGP contains specific documentation requirements relative to corrective actions. This procedure satisfies these requirements.

1.2 Scope

Requirements set forth in this document apply to personnel responsible for meeting the permit conditions on behalf of LANL industrial sites covered by the MSGP. This permit requires periodic inspection of sites and identification, implementation, documentation, tracking and reporting of conditions requiring corrective actions.

1.3 Applicability

This procedure applies to the EPC-CP MSGP stormwater personnel and DEPs who conduct stormwater inspections and monitoring activities at permitted MSGP sites within LANL.

2.0 PRECAUTIONS AND LIMITATIONS

2.1 The hazard level for field activities and office work described in this procedure is a **LOW hazard** rating and does not require an Integrated Work Document (IWD).

2.2 Inspections or walk-downs 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 open burning).

3.0 PREREQUISITE ACTIONS

3.1 Planning and Coordination

DEPs and EPC-CP MSGP stormwater personnel require a CAR database user account (https://msgp-car.lanl.gov/forms/frmservlet?config=msgp_car). Facility Operations Directors (FODs), Deployed Environment, Safety, and Health (DESH) Managers and Operations (Ops) Managers can request a read-access account by contacting the EPC-CP MSGP data administrator for access.

3.2 Tools and Equipment

Tools and equipment for documenting inspections and updating the CAR database include the following:

- LANS issued tablet or notebook style computer with Safari web browser and Blackberry UEM™app. (see https://int.lanl.gov/policy/documents/P217.pdf for requirements on using portable electronic devices on Laboratory property), and
- Access to the CAR database.

Tools and equipment for field work associated with performing inspections and site walk-downs are listed below.

- Sturdy hiking boots or steel or composite toed shoes with soles that grip (some sites require steel or composite toed shoes).
- Safety glasses if required by site.
- Cell phone (only government cell phones with batteries removed are allowed in secure areas.) See https://int.lanl.gov/policy/documents/P217.pdf for requirements on using portable electronic devices on Laboratory Property.)
- Copy of this procedure.
- Copy of facility specific Stormwater Pollution Prevention Plan (SWPPP) and map(s) (as needed).
- Necessary access.
- Stockpile of temporary stormwater controls (Best Management Practices [BMPs], e.g., inlet protection, absorbent pads for spills, gravel bags, S-Fence, wattles, etc.)

4.0 ROLES AND RESPONSIBILITIES

Specific roles and responsibilities for implementation of requirements contained in the MSGP are provided below.

4.1 EPC-CP MSGP Stormwater Personnel

EPC-CP MSGP stormwater personnel will be fully knowledgeable of the specific regulatory requirements identified in the MSGP. Additional responsibilities are listed below.

- Implement this procedure;
- Oversee the corrective action process;
- Identify conditions requiring corrective action during internal routine facility inspections, "no exposure" assessments, and/or facility walk-downs performed by them, or during evaluation of monitoring data when permit limits are exceeded;
- Perform a quality review of conditions requiring corrective action submitted in the CAR database;
- Notify managers and/or legal counsel of non-compliances;
- Assist DEPs and other customers with issues associated with the CAR database;
- Prepare and submit 45-day exceedance notification to Region 6, Environmental Protection Agency (EPA) containing information provided by the DEP;
- Prepare and submit the Annual Report summarizing all conditions requiring corrective action for the year in EPA's electronic NPDES eReporting tool (NeT);
- Prepare management requested metrics relative to conditions requiring corrective action;
- Provide information to the Issues Management Coordinator (IMC) for entering water quality exceedances and other permit violations into the Issues Management (IM) tool; and
- Train personnel to use the CAR database.

4.2 Deployed Environmental Professionals

DEPs will be fully knowledgeable of the site-specific SWPPP for their assigned sites and corrective action requirements identified in the MSGP. In addition, they shall be appropriately trained to meet the job qualifications identified in the *Quality Assurance for Stormwater Multi-Sector General Permit for Industrial Activities Program* (ENV-CP-QAPP-MSGP) and shall be familiar with the regulatory requirements identified in the MSGP, demonstrated by achieving a satisfactory score on the *MSGP Routine Facility Inspections* on-the-job training course #53040. Further, they shall be familiar with facility operations and controls to minimize potential pollutant sources and proactively maintain controls in an attempt to prevent conditions that require corrective action.

The DEPs are responsible for implementing this procedure. They will identify conditions requiring corrective actions observed at their industrial sites and enter them into the CAR database. DEPs act as liaison between the FOD, DESH Manager and facility/operations personnel to ensure all corrective actions are addressed appropriately by overseeing maintenance and/or installation of additional controls, as needed. DEPs are responsible for ensuring corrective action(s) is completed per MSGP requirements and the corrective action timeline (see Sections 5.2.1 and 5.2.2 of this procedure). They will also provide timely updates to the CAR database for closure or update of corrective actions as they are implemented.

When permit limits are exceeded, DEPs are responsible for identifying the source and maintaining existing controls or implementing additional controls, as necessary, to prevent further exceedances.

If the DEP or EPC-CP MSGP stormwater personnel determine that additional controls are necessary, or that existing controls are insufficient and require replacement with a different type of control, the DEPs are responsible for the selection and oversight of proper installation of appropriate control measures per guidance provided in the LANL Stormwater BMP Manual.

DEPs will notify the EPC-CP MSGP data administrator or MSGP Program Lead of key personnel changes (FOD, DESH Manager, Ops Manager, DEP) to ensure automated CAR status notifications are distributed to the appropriate personnel.

CAUTION

Failure to appropriately control pollutant discharges can result in fines and penalties.

Implementing the same control measure numerous times without an improvement in minimization of off-site pollutants is an indication that the control measure is not stringent enough to meet Technology-Based or Water Quality-Based effluent limits identified in the MSGP. Per the MSGP, documentation is required in the SWPPP that justified the selection, design, installation and implementation of a control measure to ensure effluent limits are met.

4.3 EPC-CP Storm Water Team Leader

The EPC-CP Storm Water Team Leader (or team leader) is responsible for compliance oversight relative to the MSGP. The team leader will ensure resources needed to implement the regulatory requirements identified in the MSGP are identified and environmental risks are assessed. Upper management will be notified of these resources 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.

4.4 EPC-CP Group Leader

The EPC-CP Group Leader or designee is responsible for ensuring there are adequate resources to implement the regulatory requirements identified in the MSGP. The group leader also acts as the duly authorized signatory that certifies the Annual Report or Routine Facility Inspections conducted by EPC-CP personnel. The group leader will notify upper management of instances of non-compliance with the permit or other identified environmental risk.

4.5 DESH Manager

The DESH Manager shall work with programmatic entities and the FOD to identify resources for their industrial sites to ensure permit requirements can be implemented. The DESH Manager is responsible for the performance of DEPs under their management. They also provide oversight for ensuring that industrial sites are complying with the MSGP and are responsible for notifying upper management of instances of non-compliance with the permit or other identified environmental risk they become aware of.

4.6 Facilities Operations Director

The FOD provides organizational leadership to ensure that all facility and programmatic activities under their authority are performed in compliance with the MSGP. The FOD is also responsible for establishing an environmental compliance envelope. It is the FOD's responsibility to maintain trained and qualified DEPs and Waste Management Coordinators (WMCs) on staff.

5.0 PROCESS DESCRIPTION

Requirements regarding corrective actions are described in Part 4 of the MSGP. These requirements and conditions are summarized in this section and directly correspond to data fields and lists of values available in the CAR database.

5.1 Identifying Conditions Requiring Corrective Actions

Deployed Environmental Professional (DEP)

[1] **IF** any of the following conditions are identified,
THEN review and revise, as appropriate, the selection, design, installation, and implementation of control measures in the SWPPP to eliminate the condition and prevent recurrence in the future:

- An unauthorized release or discharge (e.g., spill, leak, or discharge of non-stormwater not authorized by the MSGP [see Section 5.6 of this procedure for a description of allowable discharges]);
- 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 MSGP;
- It is observed during the routine facility inspection, facility walk-down, and/or the quarterly visual assessment 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 stormwater from the facility, or significantly increases the quantity of pollutants discharged;
- 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 exceedance 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 exceedance;
- If effluent limitation guidelines are exceeded at the Asphalt Batch Plant (Sector D); or
- If impaired water quality standards are exceeded.

DEP and/or EPC-CP MSGP stormwater personnel

[2] Enter all conditions requiring a corrective action into the EPC-CP MSGP CAR database.

DEP and/or Facility Personnel

[3] Take immediate action to mitigate the condition requiring a corrective action.

[4] If needed, follow the permit timeline and process for individual corrective actions that require extensive maintenance.

[5] Any person authorized to conduct work at LANL can identify a potential stormwater issue. If this occurs, they will:

[a] Contact the DEP or EPC-CP MSGP stormwater personnel.

[b] The DEP or EPC-CP MSGP stormwater personnel will determine if a condition exists that requires a corrective action.

5.2 Corrective Action Deadlines and Documentation

Specific deadlines for taking corrective action and required documentation are provided in the subsections below.

5.2.1 Immediate Action

DEP and/or Facility Personnel

[1] **IF** a condition exists that requires corrective action, as described in Section 5.1 [1], **THEN** take the following action immediately (on the same day the condition is found):

[a] All reasonable steps necessary to minimize or prevent the discharge of pollutants until a permanent solution is installed and made operational.

[b] Clean up any contaminated surfaces so that material will not discharge during subsequent storm events.

[c] Minimize or prevent the discharge of pollutants until a permanent solution (if necessary) is installed and made operational.

[d] Any corrective action resulting in a change to a stormwater control or procedure (documented in the SWPPP) requires modification of the SWPPP within 14 calendar days of completing corrective action work.

NOTE

For minor conditions, immediate action is often sufficient and no additional action is necessary.

[2] **IF** a condition is identified at a time in the work day when it is too late to initiate corrective action (i.e., 3:00 pm or later),
THEN:

[a] Corrective action must begin no later than the following work day.

[b] Implement the requirements identified in Section 5.2.1 [1] above.

CAUTION

Solely calling or e-mailing personnel requesting action to be taken is not considered taking immediate action. Entering a Facility Service Request (FSR) is appropriate if it formally starts the work process to address the condition. Temporary BMPs still need to be put in place to minimize or prevent off-site migration of pollutants, especially if a storm event is likely.

5.2.2 Subsequent Action

DEP and/or Facility Personnel

[1] **IF** additional action is required,
THEN:

[a] Complete the corrective action (e.g., install a new or modified control and make it operational or complete the repair) before the next storm event or within 14 calendar days from the time of discovery.

[b] Any corrective action resulting in a change to a stormwater control or procedure documented in the SWPPP requires modification of the SWPPP within 14 calendar days of completing corrective action work.

[2] **IF** completion of the corrective action is infeasible within the 14-day timeframe,
THEN:

[a] Document the reasoning in the database.

[b] Provide a schedule for completion of the corrective action in the database.

NOTE

Completion of the corrective action cannot exceed 45 days from the time of discovery without having to notify EPA. These time intervals are not grace periods, but are schedules considered reasonable for documenting finding(s) and for making repairs and improvements. They are included in the MSGP to ensure that the conditions prompting the need for these repairs and improvements are not allowed to persist indefinitely. In no instance will the corrective action remain open indefinitely (Part 4.3.2 of the MSGP).

5.2.3 Corrective Action Documentation

DEP and/or EPC-CP

[1] Document existence of any of the conditions listed in Section 5.1 [1] of this procedure in the CAR database within 24 hours of becoming aware of such condition (or if identified late in the work day, by the following work day).

[2] Include the following information in the documentation:

- Description of the condition triggering the need for corrective action review. For any spills or leaks, include the following information:
  - a description of the incident including material, date/time, amount, location, and reason for spill;
  - any leaks, spills or other releases that resulted in discharges of pollutants to waters of U.S., through stormwater or otherwise;
- Date the condition was identified; and
- Description of immediate actions taken (Part 4.3.1 of the MSGP) to minimize or prevent the discharge of pollutants. For any spills or leaks, include response actions, the date/time clean-up was completed, notifications made (if any), and staff involved. Also include any measures taken to prevent the reoccurrence of such releases (Part 2.1.2.4 of the MSGP).

[3] Provide the dates when each corrective action was initiated and completed (or is expected to be completed).

[a] If applicable, document why it is infeasible to complete the necessary installations or repairs within the 14-day timeframe, and

[b] Document your schedule for installing the controls and making them operational as soon as practicable after the 14-day timeframe.

[c] **IF** EPA must be notified regarding an extension of the 45-day timeframe, **THEN** the DEP must document the rationale for an extension.

EPC-CP MSGP stormwater personnel

[4] Prepare and submit 45-day exceedance notifications based on information entered into the CAR database by the DEPs.

DEP

[5] Ensure that the information in the CAR database is kept up-to-date, to include the following:

[a] a thorough description of the nature of the condition requiring corrective action,

[b] corrective action(s) taken and/or outstanding,

[c] the steps and schedule for completing a corrective action (if not completed within 14 days), and

[d] rationale for why the corrective action cannot be completed within 45-days.

5.3 Effect of Corrective Action

When the condition requiring corrective action is a permit violation (e.g., non-compliance with an effluent limit or exceedance of a water quality standard), correcting it does not remove the original

violation. Additionally, failing to take corrective action in accordance with Part 4 of the MSGP is an additional permit violation.

NOTE

The EPA will consider the appropriateness and promptness of corrective action in determining enforcement responses to permit violations (Part 4.5 of the MSGP).

5.4 Substantially Identical Outfalls

When the condition requiring corrective action is associated with an outfall that has been identified as a "substantially identical outfall" (see Parts 3.2.3 and 6.1.1 or the MSGP), a review will assess the need for corrective action for all related substantially identical outfalls. Any necessary changes to control measures that affect these other outfalls will be made before the next storm event if possible, or as soon as practicable following that storm event. Any condition requiring corrective action(s) will be addressed within the timeframes set forth in Part 4.3 of the MSGP (also see Section 5.2 of this procedure).

5.5 Spills

DEP and/or Facility Personnel

[1] Clean up all leaks or spills immediately and enter into the CAR database.

[a] If the spill is immediately cleaned up, and controls are implemented to prevent further leakage, the condition requiring corrective action can be closed.

5.6 Allowable Non-Stormwater Discharges

The following are allowable non-stormwater discharges authorized by the MSGP:

- Discharges from emergency/unplanned fire-fighting activities;
- Fire hydrant flushing;
- Potable water, including water line flushing;
- Uncontaminated condensate from air conditioners, coolers/chillers, 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 or hazardous cleaning products are used (e.g., bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols), and wash waters do not come into contact with oil and grease deposits, sources of pollutants associated with industrial activities (see Part 5.2.3 of the MSGP), or any other toxic or hazardous materials, unless residues are first cleaned up using dry clean-up methods (e.g., applying absorbent

material and sweeping, using hydrophobic mops/rags) and you have implemented appropriate control measures to minimize discharges of mobilized solids and other pollutants (e.g., filtration, detention, settlement);

- Routine external building washdown/power wash water that does not use detergents or hazardous cleaning products (e.g., those containing bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols);
- Uncontaminated ground water or spring water;
- Foundation of footing drains where flows are not contaminated with process materials; and
- Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of your facility, but not intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown or drains).

5.7 Entering a Condition Requiring Corrective Action

To enter a condition requiring corrective action into the CAR database, perform the steps in this section.

Enter clear, complete, and concise language. Correct grammar, punctuation, and spelling errors.

Select the appropriate value from each pull-down menu that applies to the condition requiring corrective action. This information will be used to populate a report that will be submitted to the EPA and is extracted from the database to populate automatic e-mail notifications to managers. Therefore, it is critical that all information entered into the CAR database is correct.

DEP or EPC-CP MSGP stormwater personnel

[1] Using internet explorer, access the CAR database at https://msgp-car.lanl.gov/forms/frmservlet?config=msgp_car.

[2] From the main screen, click on "Enter New Corrective Action."

[a] Select the "Corrective Action Header" tab.

[b] Enter the following (refer to Attachment 1 for data entry screenshot cross reference to Item numbers in red listed below):

- Item 1: Name of facility by clicking on the "List" tab and selecting a facility (refer to Attachment 2 for a list of available facilities).
- Item 2: Date/Time problem was identified (mm/dd/yyyy hh:mm) (*the inspection date or the date you first become aware of the issue*).

  There must be a space between the date (mm/dd/yyyy) and the time (hh:mm).

  All dates and times will be entered as mm/dd/yyyy hh:mm in 24-hr (military time) format. Time is tracked to document whether immediate action was taken, whether the issue was documented within 24 hours, and the specific time interval before a corrective action is completed and closed (see Section 5.2 of

this procedure for corrective action deadlines). Do not leave time as 00:00 (the system default) unless the action occurred at midnight.

- Item 3: Date/Time of Notification to EPC-CP (mm/dd/yyyy hh:mm) (*the date the condition is entered into the CAR database or verbal or written notification is provided to the EPC-CP MSGP Program Lead. Conditions reported by verbal or written notification must still be entered into the CAR database*.)

  The existence of any of the conditions listed in Section 5.1 of this procedure must be documented in the CAR database within 24 hours of becoming aware of such condition (or if identified late in the work day, by the following work day).

- Item 4: FOD Responsible for CA (Name & Org) by clicking in the box. FOD designations (for example "STO") and the associated name list will pop up. Select the appropriate FOD.

  Contact the EPC-CP MSGP Program Lead at 667-1312 or hbenson@lanl.gov if the FOD name or organization is incorrect, so this can be corrected.

- Item 5: Describe Specific Evaluation Location (for example, "Northeast corner of Building TA-3-66.")

- Item 6: Inspector Z-Number by clicking in the box, which will populate with the Z number of the person who is logged into the database and performing entry. In most instances, the DEP will be identified as the inspector.

- Item 7: Person Identifying Condition Z-Number by clicking in the box, which will populate with the Z number of the person who is logged into the database and peforming entry. If the person identifying the condition is someone other than the inspector, enter that person's Z-number.

  Any person authorized to conduct work at LANL can identify a potential stormwater issue. If this occurs, they will contact the DEP or EPC-CP MSGP stormwater personnel who will determine if a condition exists that requires corrective action.

- Item 8: Status defaults to "A new corrective action" without making a selection. In the event a condition is entered that is determined to not require corrective action, this status can be changed to "Void" by clicking in the box and selecting from the Status list. The decision to assign a status of "Void" is at the discretion of EPC-CP MSGP stormwater personnel and reserved for EPC-CP use.

- Item 9: If the Status is changed to "Void," enter a clear rationale for voiding the record.

- Item 10: 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" meaning the form cannot be saved unless these fields are completed. For the purpose of fulfilling

corrective action documentation requirements (see Section 5.2.3 of this procedure), all applicable fields are required fields.

The system will automatically assign a Corrective Action Report identification (ID) number and move to the "Corrective Action Details" tab.

[c] Select the "Corrective Action Details" tab.

[d] Enter the following:

- Item 11: Identify the condition triggering the need for this review by clicking on the "List" button and selecting the appropriate condition or, if none of the available conditions fit the issue, selecting "Other" and entering a description of the condition (refer to Attachment 2 for a list of available conditions/finding descriptions).

  These conditions are described in Section 5.1 of this procedure. Qualified personnel (EPC-CP MSGP stormwater personnel and DEPs) must be knowledgeable of these conditions and select the correct one when entering an issue. If there is uncertainty about which condition applies, refer to the definitions in Section 8.1 of this procedure or contact the MSGP Program Lead at 667-1312 or hbenson@lanl.gov for clarification prior to selecting "Other."

- Item 12: If the condition in Item 11 is set to "Other," enter a description of the condition in this field.

- Item 13: 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 (e.g., at TA-60 Roads and Grounds).

  Spills or other emergency conditions meeting the criteria for corrective action (identified in Parts 4.1 and 4.2 of the MSGP) will require documentation in the CAR database even though the condition was not identified during an inspection.

- Item 14: Enter how the problem was identified by clicking on the "List" button and selecting the appropriate option, or if none of the available options fit, selecting "Other."

- Item 15: If "Other" is selected for Item 14, enter a description of how the problem was identified in this field.

- Item 16: Enter a description of the condition requiring corrective action, or identify action to be taken to eliminate or further investigate the problem (e.g., describe modifications or repairs to control measures, work conducted to address the condition or to be scheduled in the future, etc.,) or if no modifications are needed, the basis for that determination. Include relevant dates and facts when updating this field as the corrective action progresses.

- Item 17: Indicate whether the problem was identified at a Substantially Identical Outfall (see Section 5.4 of this procedure) by typing "Y" for yes and "N" for no.

- Item 18: If the answer to Item 17 is "Y," enter the associated SIO(s) in this field. If the answer to Item 17 is "N," leave this field blank. SIOs are identified in the site-specific SWPPPs. For assistance with identifying SIOs contact the MSGP Program Lead.
- Item 19: If the answer to Item 17 is "Y," describe how the corrective action taken is appropriate for all SIOs (see Section 5.4 of this procedure), document any additional corrective action(s) needed for any of the SIOs, or document why no additional action is needed for the SIOs. If the answer to Item 17 is "N," leave this field blank.
- Item 20: Did/will the corrective action require modification to the SWPPP? Type in "Y" for yes and "N" for no (see Section 5.1 of this procedure for conditions that require SWPPP review and revision).
- Item 21: Date/Time Corrective Action was initiated (mm/dd/yyyy hh:mm).

  The duration between the Date/Time problem was identified and Date/Time corrective action was initiated is used to determine whether "immediate action" was taken (see Section 5.2.1 of this procedure). Immediate action is a requirement of the MSGP and therefore, will be documented in accordance with permit requirements.
- Item 22: Date/Time corrective action was completed **OR** expected completion Date/Time (mm/dd/yyyy hh:mm).

  If the corrective action has not been completed, enter an expected completion date and time. The system will not allow entry of a date in both locations.

  The duration between the Date/Time Problem was Identified and Date/Time corrective action was completed or the Date/Time Problem was identified and expected completion Date/Time is used to determine whether "subsequent action" timeframes and documentation requirements were/are being met, and to forecast where a 45-day exceedance notification to EPA is required (see Section 5.2.3 of this procedure). When information is incorrect or not entered, the MSGP data administrator or Program Lead will contact the originator and request correction(s).
- Item 23: If the corrective action is not or will not be completed within 14 days, provide the status of the corrective action at the end of the 14 day timeframe, the rationale for why it is infeasible to complete the corrective action within 14 days, and describe any remaining steps (including timeframe/schedule associated with each step) necessary to complete the corrective action.
- Item 24: Date EPA notified of intent to exceed 45 Days (mm/dd/yyyy hh:mm) is to be completed by EPC-CP MSGP stormwater personnel to document submittal of notification letter.
- Item 25: Once all of the above information is entered correctly, click "Save" so the corrective action information is retained.

[3] **IF** there are additional conditions to enter requiring corrective action, as described in Section 5.1 [1],
THEN perform these steps:

[a] Return to the "Corrective Action Header" tab.

[b] Click the "Enter New Corrective Action" button in the lower left hand corner of the screen.

[c] Click "Back to Record Selection" to return to the list of saved conditions requiring corrective action on the initial screen (if desired).

5.8 Updating Corrective Actions

DEP or EPC-CP MSGP stormwater personnel

[1] Access the CAR database at https://msgp-car.lanl.gov/forms/frmservlet?config=msgp_car.

[a] On the main screen, scroll down to the corrective action number to be edited.

[b] Click "Edit."

[2] Navigate to the desired field, and input the updated information. Most changes will occur relative to updating the status, schedule, and dates of corrective actions.

[3] Click "Save" to save all changes to the information.

5.9 Validation of Corrective Actions

EPC-CP MSGP stormwater personnel

[1] Access the CAR database at https://msgp-car.lanl.gov/forms/frmservlet?config=msgp_car.

[2] Ensure information entered into the CAR database is correct.

[a] Check all entered fields for a condition requiring corrective action to ensure that information is clear, correct, and concise.

[b] **IF** not,
THEN notify the DEP of the information that needs to be changed.

[c] The DEP is responsible for ensuring all information is validated before generating the annual report.

[3] **IF** the identified condition requiring corrective action is a repeat of a previous condition or if it is determined not to be a condition requiring corrective action,
THEN

[a] Under "Status," select "Void."

[b] The "Void" designation allows MSGP stormwater personnel to manually exclude this information in the annual report.

5.10 Issues Management

EPC-CP MSGP stormwater personnel or DEPs use the IM tool as the institutional performance issues and tracking system for identified quality assurance (QA) affecting issues. A QA affecting issue includes, but is not limited to, the following conditions.

- Exceedance of a water quality standard.
- Exceedance of an effluent limitation (i.e., at the Asphalt Batch Plant).
- Repeat conditions requiring corrective actions or trends identified by EPC-CP MSGP stormwater personnel.
- Conditions requiring immediate action, where failure to take action would result in pollutants being released to waters of the state.
- Immediate non-compliance with the MSGP.
- Violations identified by the regulatory authority.

The MSGP Program Lead periodically evaluates a summary of open conditions requiring corrective actions in the CAR database. Using the above conditions, the MSGP Program Lead or DEP determines which corrective actions, if any, will be transferred into the IM tool.

DEP or EPC-CP MSGP stormwater personnel

[1] **IF** an issue needs to be entered into the IM tool,
THEN send the following information to the EPC Division IMC for entry into the IM tool:

- Organization responsible for the issue/problem;
- A description of the nature of the condition identified and what needs to be done to address it;
- Regulatory citation for the non-compliance;
- Issues Responsible Manager (IRM);
- Action, actionee, and due date for each issue; and
- Whether the issue was identified internal or external to LANL.

5.11 Notifications for New and Overdue Corrective Actions

[1] When a new condition requiring corrective action is entered into the CAR database, the FOD, Ops Manager, DESH Manager, inspector (usually the DEP) and EPC-CP MSGP stormwater personnel and managers are notified automatically by e-mail on the evening of the day the corrective action was entered.

[2] Automated e-mail notifications will be sent during the corrective action process depending on the length of time it will take to close.

[3] A notification will be sent out:

- When a new corrective action is entered into the database (see Attachment 3); and
- Weekly notifications of outstanding (open) corrective actions (see Attachment 4).

Each notification contains a hyperlink to a web-based report containing a list of all open issues and timeline status where final corrective actions have not been completed (see Attachment 5) by the FOD. The report contains the FOD, Facility, unique Corrective Action identification number assigned by the CAR database, the person identifying the condition, the date the issue was identified, the date corrective action was initiated, the projected completion date, and a color-coded count (corresponding to the Corrective Action deadlines in Section 5.2 of this procedure) of the number of days to take action and the number of days the issue has been open, and the issue/problem description.

These notifications serve to apprise recipients of the status of open conditions requiring corrective actions and to provide sufficient time for MSGP stormwater personnel to provide documentation to EPA at the 45-day deadline. This will assist the FOD, DESH Managers, Ops Managers, and the DEPs with keeping track of conditions requiring corrective actions.

6.0 TRAINING

The following personnel require training before implementing this procedure:

- EPC-CP Group Leader and Team Leader;
- EPC-CP MSGP stormwater personnel;
- DEPs; and
- Other LANL or subcontract personnel identified as being required to conduct stormwater inspections, or other assessments and enter conditions requiring corrective actions into the CAR database as part of their job duties.

For EPC-CP MSGP stormwater personnel, the training method for this procedure is "self-study" (reading). DEPs shall achieve a satisfactory score on Training Course 53040, *MSGP Routine Facility Inspections OJT*. Other participating groups may require training documentation pursuant to local procedures.

Personnel performing this procedure will be familiar with the most current version of the following procedure:

- ENV-CP-QAPP-MSGP, *Multi-Sector General Permit for Industrial Activities Program*

7.0 RECORDS

Conditions requiring corrective actions are contained within the CAR database. DEPs will retain documentation substantiating these conditions, corrective actions, and timelines reported in the CAR database (e.g., e-mails, FSRs, Work Orders, etc., as appropriate). These documents shall be made available to EPC-CP upon request.

8.0 DEFINITIONS AND ACRONYMS

See LANL Definition of Terms.

8.1 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.

Numeric effluent limitation—The degree of effluent reduction attainable by the application of the best practicable control technology currently available (see 40 CFR Part 443.12). For LANL, numeric effluent limitations apply only to the Asphalt Batch Plant (Sector D) (see Table 1-1 of the MSGP). Constituents with limitations for Sector D include Total Suspended Solids, pH, and oil and grease (see Table 8.D-2 of the MSGP).

Note: Exceedance of a numeric effluent limitation is a violation of the MSGP (see Part 4.1 of the MSGP).

Non-numeric effluent limitations—Per Part 2.1.2 of the MSGP, these include minimizing exposure, good housekeeping, maintenance, spill prevention and response, erosion and sediment controls, management of runoff, salt storage controls, employee training, elimination of non-stormwater discharges, and minimizing dust generation and vehicle tracking of industrial materials.

Unauthorized release or discharge—The release of any liquid or solid substance (within the boundary of an MSGP site) that is not an allowable non-stormwater discharge (see Section 5.6). Examples are hydraulic oil, gasoline, diesel, powdered concrete, concrete washout, steam condensate line leaks, etc.

Impaired water quality exceedance—Exceedance of a New Mexico water quality standard. These standards are specified in the New Mexico Administrative Code, Title 20, Chapter 6, Part 4, *Standards for Interstate and Intrastate Surface Waters*.

Note: Industrial stormwater discharges must be controlled as necessary to meet applicable water quality standards within the State of New Mexico (see Part 2.2.1 of the MSGP).

8.2 Acronyms

See LANL *Acronym Master List*.

BMP	Best Management Practice
CA	Corrective Action
CAR	Corrective Action Report
EPA	Environmental Protection Agency

EPC-CP	Environmental Protection and Compliance-Compliance Programs
DEP	Deployed Environmental Professional
DESH	Deployed Environmental, Safety and Health
ID	Identification
IM	Issues Management
IMC	Issues Management Coordinator
IRM	Issues Responsible Manager
IWD	Integrated Work Document
FOD	Facility Operations Director
FSR	Facility Service Request
HEY	Heavy Equipment Yard
LANL	Los Alamos National Laboratory
MSGP	Multi-Sector General Permit
N	No
NPDES	National Pollutant Discharge Elimination System
Ops	Operations
P	Procedure
PD	Program Description
QA	Quality Assurance
QP	Quality Procedure
SD	System Description
STO	Science and Technology Operations
SWPPP	Stormwater Pollution Prevention Plan
40 CFR	Title 40 of the Code of Federal Regulations
WMC	Waste Management Coordinator
Y	Yes

9.0 REFERENCES

- *Final National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Industrial Activities.* Federal Register: June 16, 2015, Volume 80, Number 115.
- *Unites States Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit For Stormwater Discharges Associated With Industrial Activity (MSGP)*
- *Los Alamos National Laboratory Storm Water BMP Manual*

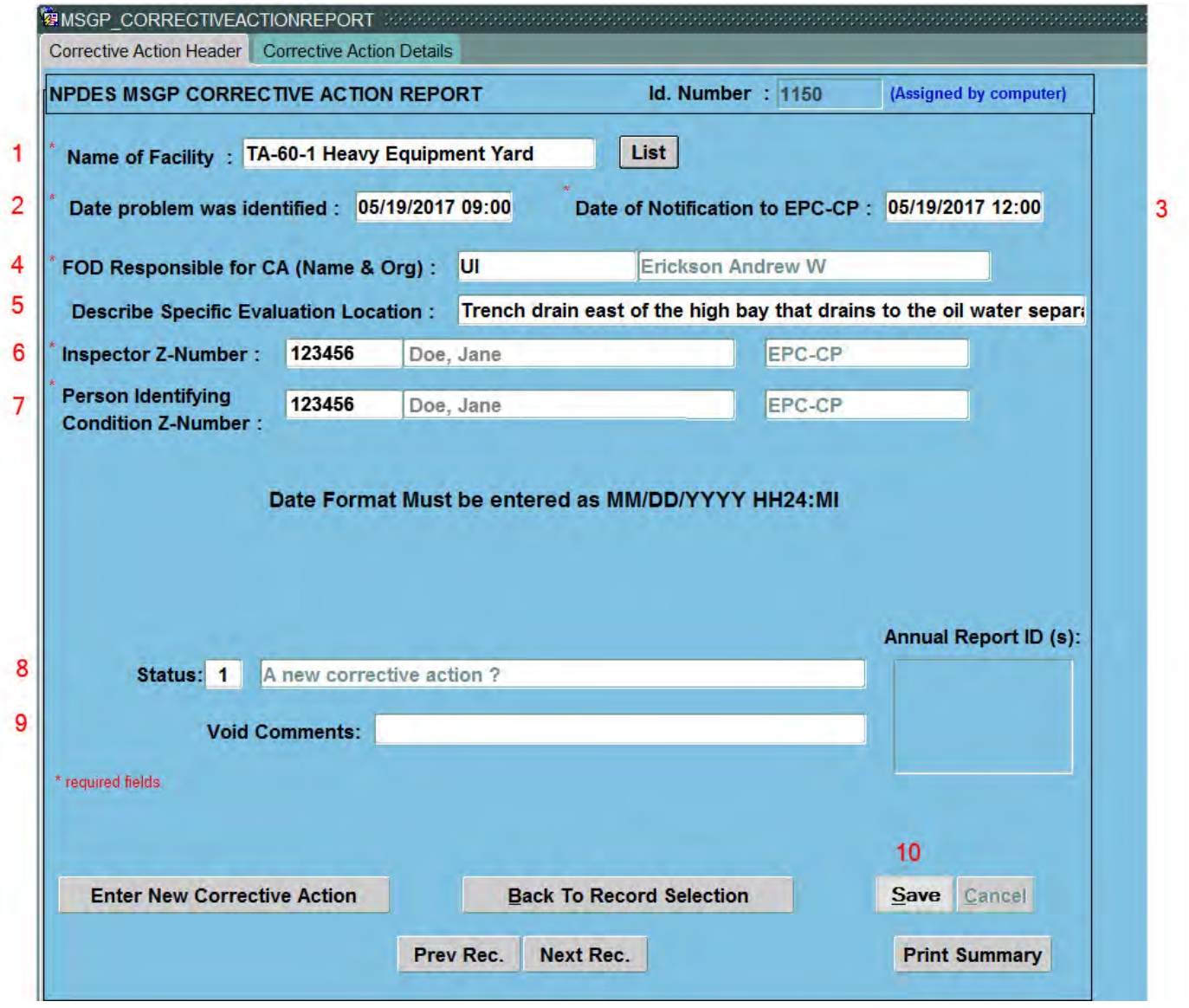
- PD100, *DOE/NNSA Approved Los Alamos National Laboratory 10 CFR 857 Worker Safety and Health program Description*
- SD100, *Integrated Safety Management System*
- P101-18, *Procedure for Pause/Stop Work*
- EPC-CP-QP-023, *MSGP Routine Facility Inspections*

10.0 ATTACHMENTS

Attachment 1: Screenshot Example of CAR Database
Attachment 2: Lists of Limited Values in the CAR Database
Attachment 3: Example New Corrective Action Finding Notification
Attachment 4: Example Weekly Notification of Outstanding Corrective Action Findings
Attachment 5: Example Outstanding Corrective Action Report

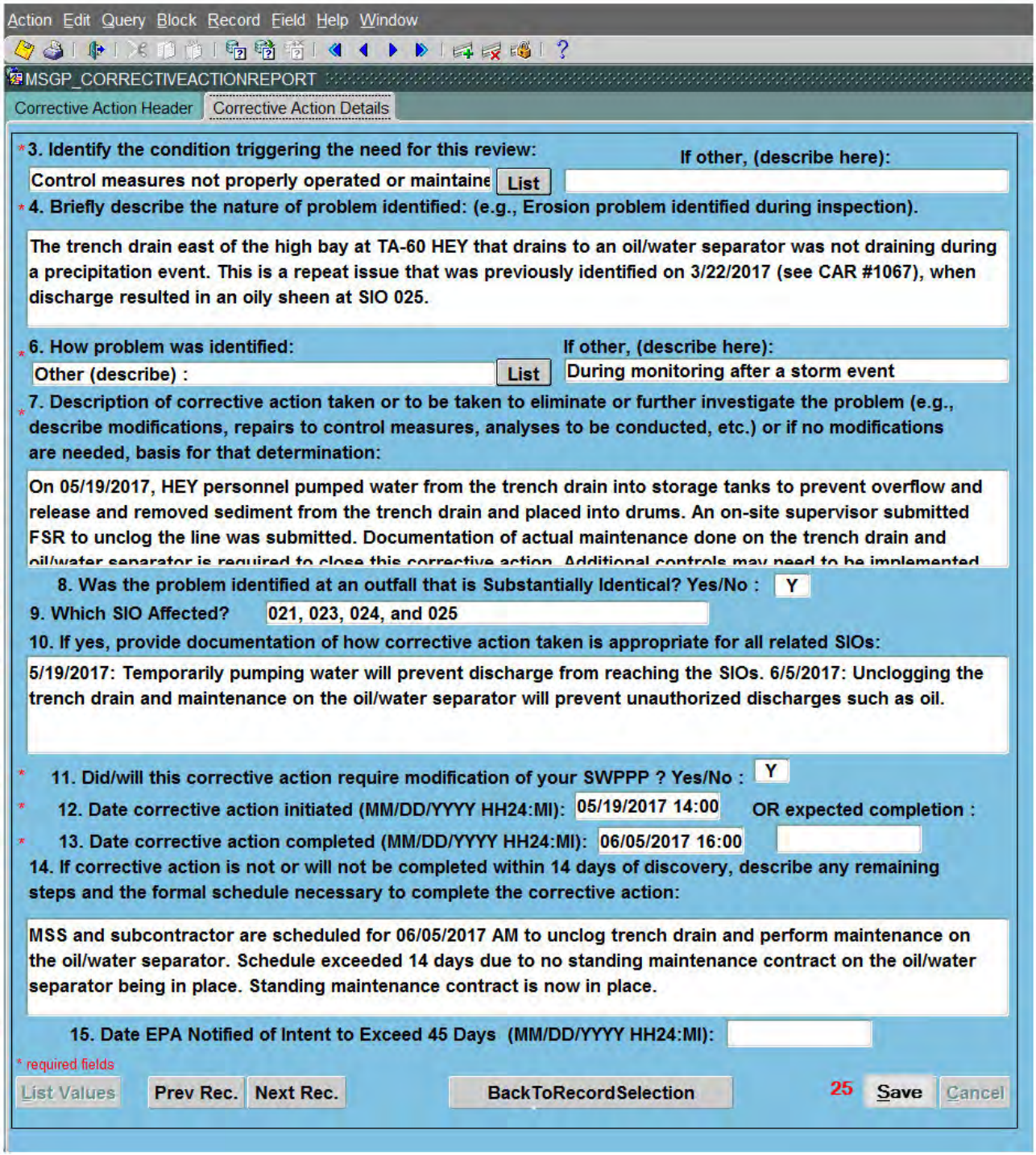
Attachment 1 – Screenshot Example of CAR Database

Corrective Action Header tab



Attachment 1 – Screenshot Example of CAR Database (cont.)

Corrective Action Details tab



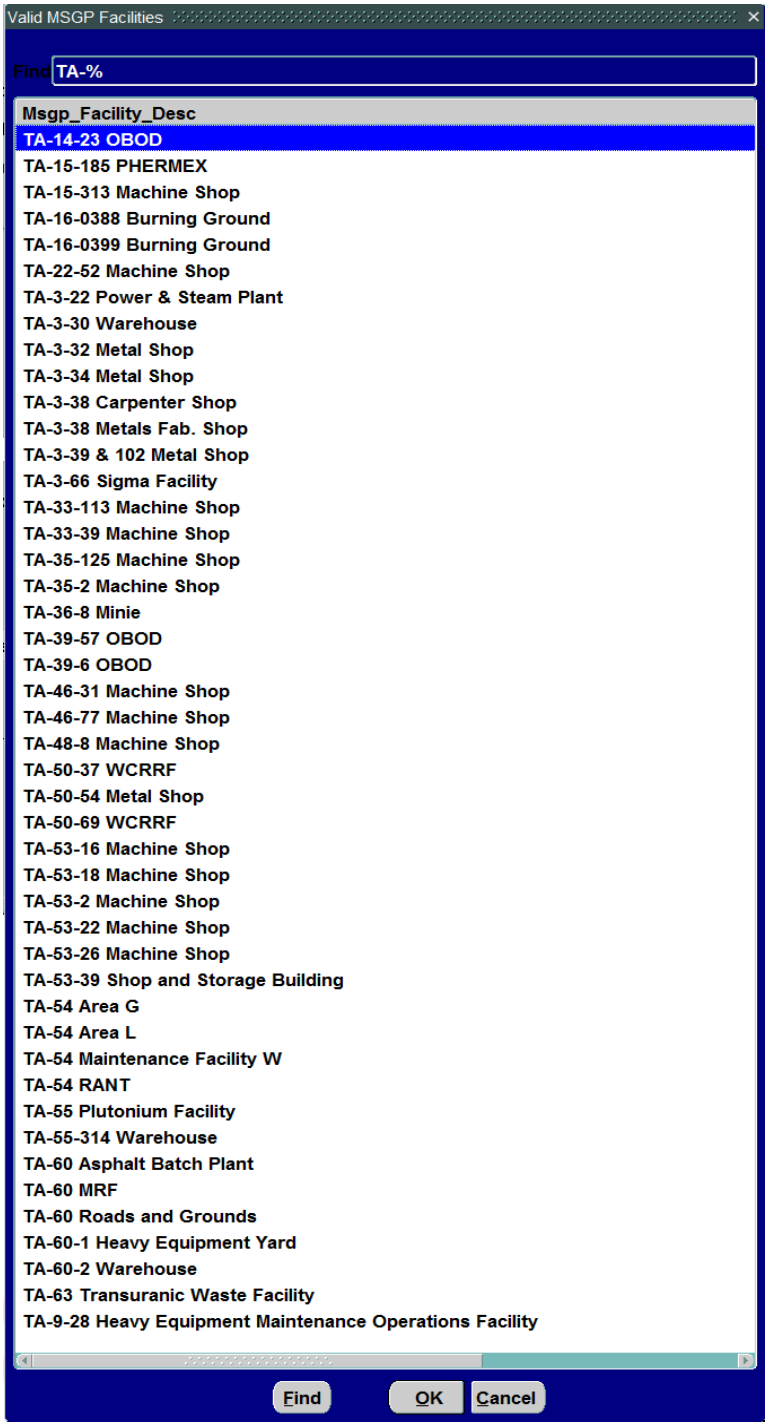
Attachment 1 – Screenshot Example of CAR Database (cont.)

Full Text for Item 16: Description of Corrective Action Taken or to be Taken

On 05/19/2017, HEY personnel pumped water from the trench drain into storage tanks to prevent overflow and release. Sediment was also removed from the trench drain and placed into drums. An on-site supervisor submitted an FSR to unclog the line. Documentation of actual maintenance done on the trench drain and oil/water separator is required to close this corrective action. Additional controls may need to be implemented until maintenance is complete to ensure that oil is not discharged into the drainage channel north of the site. In addition, the SWPPP must be modified to identify the preventative maintenance schedule and include the procedure for conducting it. On 05/30/2017, the SWPPP was modified to include a quarterly maintenance schedule and a procedure for routine maintenance on the oil/water separator. On 06/05/2017, MSS jet-routed the drain to remove the clog and a subcontractor performed maintenance on the oil/water separator.

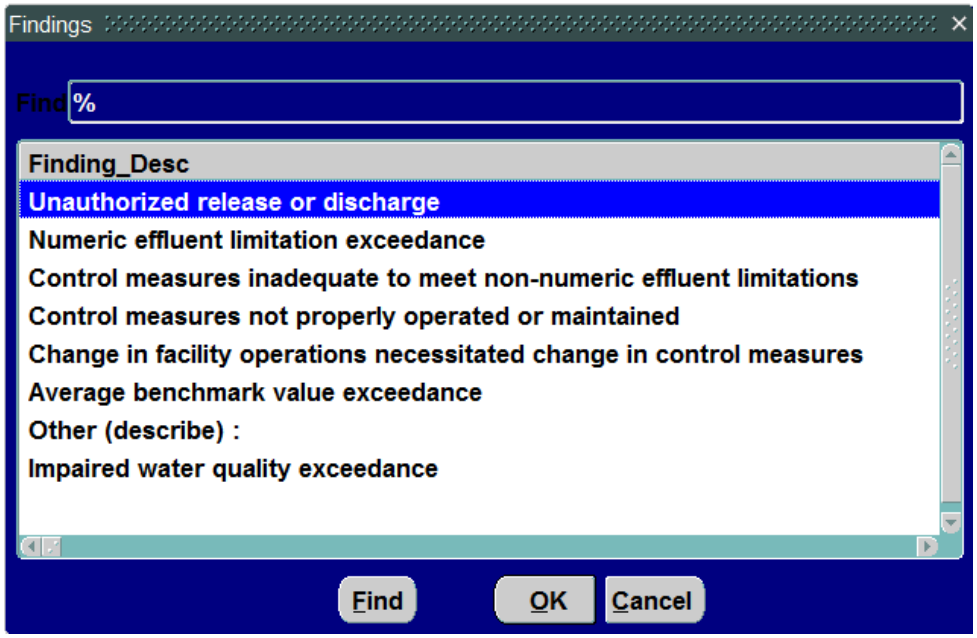
Attachment 2 – Lists of Limited Values in the CAR Database

Name of Facility *(Item 1 on Attachment 1 Screenshot)*

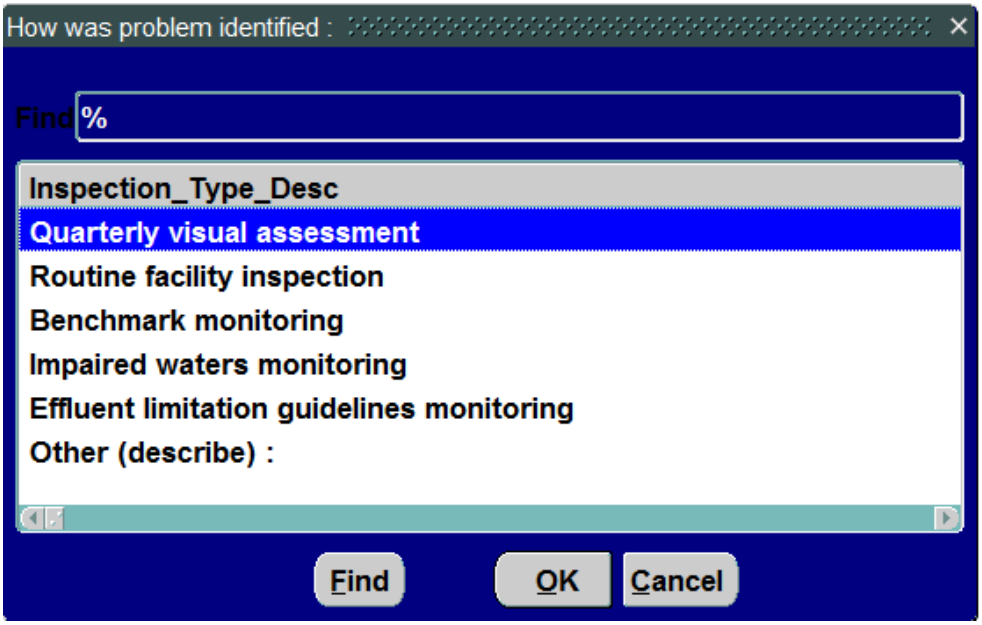


Attachment 2 – Lists of Limited Values in the CAR Database (cont.)

Finding Description/Condition Triggering Need for Review *(Item 11 on Attachment 1 Screenshot)*



Inspection Type/How Problem was Identified *(Item 14 on Attachment 1 Screenshot)*



Attachment 3 – Example New Corrective Action Finding Notification

From: MSGPCorrectiveActionDB@esp-esh-as01.lanl.gov [mailto:MSGPCorrectiveActionDB@esp-esh-as01.lanl.gov]
Sent: Friday, January 19, 2018 10:00 PM
To:
Cc:

Subject: New Corrective Action finding relative to the NPDES MSGP Program

This email is generated automatically by the National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP) Corrective Action Report (CAR) database to provide notification of discovery of a new condition requiring corrective action. As the recipient of this notification, you are responsible for immediately taking all reasonable steps necessary to minimize or prevent the discharge of pollutants until a permanent solution is installed and made operational.

"Immediately" requires initial action on the same day a condition is found. However, if a problem is identified at a time in the work day when it is too late to initiate corrective action (after 2 P.M.), the initiation must begin no later than the following work day.

Documentation of newly identified conditions requiring corrective action must occur within 24 hours of discovery, evidenced by entry into the CAR database.

At TA-50-37 WCRRF on 01/17/18, a condition requiring a corrective action was observed and a corrective action report was generated per the 2015 Multi-Sector General Permit requirements for stormwater controls at industrial sites. The condition(s) requiring a corrective action(s) is/are listed below.

CA#: 1296 located at TA-50-37 WCRRF.

Person Identifying Condition: DOE JANE

Description of finding: Unauthorized release or discharge

Condition requiring corrective action: Forklift was leaking hydraulic fluid

Description of the corrective action taken or to be taken to eliminate the condition or further investigation: On 1/17/2018 prior tot he start of work the operator noticed the forklift was leading hydraulic fluid from the line to the mast. Approximately 4 to 6 oz leaked onto the asphalt. The Operation Center was notified and the WMC and ENV. The Nuc Operators placed spill pads under the leak. FSR#182723 was entered to repair forklift and apply microblaze. At 1702 MSS personnel applied micro blaze to the spill. On 1/18/2018 the WMC collected all spill pads and managed them accordingly.

Status: The corrective action was initiated on 01/17/2018 and was completed on 01/17/2018.

Click HERE to access the list of MSGP corrective action(s) not yet completed for EWMO.

Click HERE to access the list of all MSGP corrective action(s) not yet completed.

The ESH Deployed Environmental Professional (DEP) assigned to your organization/area is (are) Jane Doe.

The color legend on the linked reports corresponds to the following schedule for corrective action completion as required by the 2015 MSGP:

You must complete the corrective action within 14 calendar days of discovery.

If completion of final corrective actions within 14 days is not feasible, the reason(s) must be documented and a description of steps required and formal schedule for completion, which must be done as soon as practicable after the 14-day timeframe, but not longer than 45 days after discovery. The reasons, steps and schedule for completion must be entered into the CAR database.

If the completion of corrective action will exceed the 45-day timeframe, you make take the minimum additional time necessary, provided that you notify Region 6 of the Environmental Protection Agency:

- of your intent to exceed 45 days,
- your rationale for an extension, and
- a completion date.

To assist the preparation of this notification, as a responsible individual, you must contact the EPC-CP Project Lead at 667-1312 for any corrective action that remains open 35 days or more, and provide a formal status of the progress for each corrective action. By day 40, the DEP must provide the EPC-CP Project Lead the rationale for potentially exceeding the required 45-day timeframe and a proposed completion date for each associated corrective action. The DEP must also amend the rationale and completion date in the CAR database.

An extension request must be submitted to Region 6 of the U.S. Environmental Protection Agency by EPC-CP personnel prior to day 45 for final corrective actions not completed or estimated to be completed within 45 days of discovery.

The responsible individual must ensure compliance with the proposed completion schedule.

These intervals are not considered grace periods, but are defined schedules to ensure the conditions requiring corrective action do not persist indefinitely.

Where corrective actions result in changes to controls or any procedures documented in the facility's Storm Water Pollution Prevention Plan (SWPPP), the DEP must modify the SWPPP accordingly within 14 calendar days of completing corrective action work.

Attachment 4 – Example Weekly Notification of Outstanding Corrective Action Findings

From: MSGPCorrectiveActionDB@esp-esh-as01.lanl.gov [mailto:MSGPCorrectiveActionDB@esp-esh-as01.lanl.gov]
Sent: Monday, January 01, 2018 10:00 PM
To:
Cc:
Subject: Weekly Notification of Outstanding NPDES MSGP Corrective Action finding(s)

This email is generated automatically by the National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP) Corrective Action Report (CAR) database to provide notification of discovery of a new condition requiring corrective action. As the recipient of this notification, you are responsible for immediately taking all reasonable steps necessary to minimize or prevent the discharge of pollutants until a permanent solution is installed and made operational.

"Immediately" requires initial action on the same day a condition is found. However, if a problem is identified at a time in the work day when it is too late to initiate corrective action (after 2 P.M.), the initiation must begin no later than the following work day.

Documentation of newly identified conditions requiring corrective action must occur within 24 hours of discovery, evidenced by entry into the CAR database.

At TA-3-38 Carpenter Shop , 1 total MSGP stormwater corrective action(s) has (have) not been completed.

At TA-3-38 Metals Fab. Shop , 1 total MSGP stormwater corrective action(s) has (have) not been completed.

At TA-60-1 Heavy Equipment Yard , 7 total MSGP stormwater corrective action(s) has (have) not been completed.

At TA-60-2 Warehouse , 4 total MSGP stormwater corrective action(s) has (have) not been completed.

Click HERE to access the list of MSGP corrective action(s) not yet completed for UI.

Click HERE to access the list of all MSGP corrective action(s) not yet completed.

The ESH Deployed Environmental Professional (DEP) assigned to your organization/area is (are) Jane Doe :John Doe.

The color legend on the linked reports corresponds to the following schedule for corrective action completion as required by the 2015 MSGP:

You must complete the corrective action within 14 calendar days of discovery.

If completion of final corrective actions within 14 days is not feasible, the reason(s) must be documented and a description of steps required and formal schedule for completion, which must be done as soon as practicable after the 14-day timeframe, but not longer than 45 days after discovery. The reasons, steps and schedule for completion must be entered into the CAR database.

If the completion of corrective action will exceed the 45-day timeframe, you make take the minimum additional time necessary, provided that you notify Region 6 of the Environmental Protection Agency:

- of your intent to exceed 45 days,
- your rationale for an extension, and
- a completion date.

To assist the preparation of this notification, as a responsible individual, you must contact the EPC-CP Project Lead at 667-1312 for any corrective action that remains open 35 days or more, and provide a formal status of the progress for each corrective action. By day 40, the DEP must provide the EPC-CP Project Lead the rationale for potentially exceeding the required 45-day timeframe and a proposed completion date for each associated corrective action. The DEP must also amend the rationale and completion date in the CAR database.

An extension request must be submitted to Region 6 of the U.S. Environmental Protection Agency by EPC-CP personnel prior to day 45 for final corrective actions not completed or estimated to be completed within 45 days of discovery.

The responsible individual must ensure compliance with the proposed completion schedule.

These intervals are not considered grace periods, but are defined schedules to ensure the conditions requiring corrective action do not persist indefinitely.

Where corrective actions result in changes to controls or any procedures documented in the facility's Storm Water Pollution Prevention Plan (SWPPP), the DEP must modify the SWPPP accordingly within 14 calendar days of completing corrective action work.

Attachment 5 – Example Outstanding Corrective Action Report

LANL inside

EPC-CP MultiSector General Permit (MSGP)
Corrective Action Report Findings
Final Corrective Actions Not Yet Complete (as of 02/01/2018)

FOD	RAD	MSGP Facility	CA#	Person Identifying Condition	Date Problem Identified	Corrective Action Initiated Date	Days to Take Action	Projected Completion Date	Projected Days until Completion	Days Open (since Discovery)	EPA Notified of Intent to Exceed 45 Days	Problem Description
UI	DOE JOHN	TA-3-38 Carpenter Shop	1298	DOE JANE	01/31/18		!	02/02/18	1	1		Tarp was totally torn off of the stack of metal posts at the southwest corner of the storage yard.
	DOE JOHN	TA-3-38 Metals Fab. Shop	1299	DOE JANE	01/31/18		!	02/02/18	1	1		A pile of gravel (from a torn gravel bag) is directly east of the trench drain.
Total Findings:												2

Legend

!	Action must be taken and documented in CAR.	3	Indicates immediate action was not taken (i.e., <=2 days of discovery)
	Within 14 days of discovery		Between 35 and 44 days of discovery
	Between 15 and 34 days of discovery		45 days of discovery or greater

Attachment 18: **EPC-CP-QP-064, *MSGP STORMWATER VISUAL ASSESSMENTS***

EPC-CP-QP-064	Revision: **1**	
Effective Date: 10/09/2018	Next Review Date: 10/09/2021	

Environment, Safety, 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	9-11-18

Derivative Classifier: ☒ **Unclassified or** ☐ _____

Name:	Organization:	Signature:	Date:
Jacob Meadows	EPC-CP	Signature on File	9-11-18

Approval Signatures:

Subject Matter Expert:	Organization:	Signature:	Date:
Holly L. Wheeler	EPC-CP	Signature on File	9-11-18
Responsible Line Manager:	Organization:	Signature:	Date:
Terrill W. Lemke	EPC-CP Team Leader	Signature on File	9-12-18
Responsible Line Manager:	Organization:	Signature:	Date:
Taunia S. Van Valkenburg	EPC-CP Group Leader	Signature on File	10-9-18

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.
EPC-CP-QP-064, R1	10/09/2018	Removed requirement to conduct visual assessment on filtered samples. Updated form to match text.

Table of Contents

1.0 INTRODUCTION

Los Alamos National Laboratory (LANL) 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). 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 where LANL conducts stormwater monitoring activities under the MSGP.

1.2 Scope

Requirements set forth in this document apply to LANL 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 and a carpenter shop. Inspection waivers may be granted by EPC-CP for adverse weather conditions and unstaffed or inactive sites.

At least once each MSGP monitoring quarter an unfiltered stormwater sample must be collected from each discharge point covered by the MSGP and site specific Storm Water Pollution Prevention Plan (SWPPP) and visually inspected for water quality characteristics. Stormwater samples are collected with an automated sampler, single stage sampler, or by taking a grab sample.

Assessments conducted under this procedure are 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 document the work.

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 in section 6.1.3 of the MSGP as one "that results in an actual discharge from your site that follows the preceding measurable storm event by at least 72 hours (three 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.** The IWD Part II (2101 Form) will address site-specific requirements and training for Facility Operations Divisions (FODs).

Work 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. Obtain necessary additional paperwork (if required) before conducting this work, including IWD's, and excavation permits.
3. As specified in the IWD, inform (e.g., by e-mail) facility contacts and/or DEP (Deployed Environmental Professional) of the schedule for work and locations up to a week (preferred) before but no later than the day before (for minor changes) so work is added to the appropriate plan of the day.

   Note: For some FODs (e.g., Utilities and Institutional Facilities), 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.
4. The IWD Part II (2101 Form) addresses specific requirements and training for FODs.
5. Gather the required equipment (see Section 3.2) for the work to be done.
6. Using the Safari or Chrome 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. 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.

8. 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 and other facility specific Personal Protective Equipment
- Cell phone (only government cell phones are allowed in secure areas) (See https://int.lanl.gov/policy/documents/P217.pdf for requirements for using portable electronic devices on Laboratory property.)
- Current copy of this procedure
- Current copy of the IWD(s)
- Current copy of the MSGP Sampling and Analysis Plan
- Site Map(s) (as needed)
- Current electronic work order or paper inspection form
- Government issued electronic tablet with Safari web browser and Blackberry UEM™ app. (See https://int.lanl.gov/policy/documents/P217.pdf for requirements for using portable electronic devices on Laboratory property.)
- Necessary access and station keys
- Certified 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 will be collected during daylight hours in a wide mouth clear glass or plastic container within 30 minutes of discharge from a storm event.

2. In MC Express, click on the appropriate work order number to open the work order. 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 examples in Attachment 1 and a hard copy example in Attachment 2.

4. Any additional comments not documented in the "Reading" field will be entered in the "Comments" field of the same task line. If the inspector needs more space, additional comments will be entered in the "Labor Report Update" field (see Section 4.3) when the work order is updated to "Complete" status.
5. 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.

4.1 Documenting Sample Information

Each item number listed in red font below corresponds to a red numbered box on both screenshots (Attachment 1) and hard copy format (Attachment 2).

1. Item 1: Document 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, and 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.

2. Item 2: Check 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.

3. Item 3: Check 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.

4. Item 4: Check 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.

5. Item 5: Observe 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.

6. Item 6: Check 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 will constantly be attempting to relate any pollutant that is observed in the sample to a pollutant source on the site.

If there are any potential sources of pollutants on site, document the following, and contact the EPC-CP MSGP Project Lead within 24 hrs. of identification.

- Potential sources;
- Indicate if there are any Best Management Practices (BMPs) on site and evaluate and note effectiveness; and
- If no BMPs, determine if installation could correct future pollutant migration.

7. Item 7: Observe 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.

8. Item 8: Observe 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.).

9. Item 9: Observe 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 is 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.

10. Item 10: Observe 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 will 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.

11. Item 11: Observe 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.

12. Item 12: Observe 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 suspended solids observed (e.g., fine, course).

    Most often suspended solids include fine sediment. This may be an indication of an unstable channel with eroding banks. Some water appears to be colored because of relatively coarse particulate material in suspension such as sediment.

13. Item 13: Check 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.

    If it is determined that foam is caused by a pollutant, complete the visual assessment and contact the EPC-CP MSGP Project Leader **immediately** following completion of the assessment. Follow-up action is required within 24 hours.

14. Item 14: Check 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).

    If an oil sheen is present, contact the EPC-CP MSGP Project Leader **immediately** following completion of the visual assessment. Determine the nature of the discharge (rain, snow, hail), the source of the oil 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.

15. Item 15: Check 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.

16. When all task lines have been completed, click the "Back" 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).
2. Click the checkered flag  in the upper right corner of the work order Summary page. The work order will open in the display to the Status Update page.

   MC Express automatically changes the work order status to "Closed" and auto populates the date/time fields.
3. Item 16: 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 **work was completed** and ***not* the date/time the form was filled out**. If work needs to be performed over multiple days, enter the date and time the work began in the Labor Report field. To update the date or time, click the "Date" field and make necessary adjustments using the available timestamp application. Click "Set" to apply changes.
4. Item 17: The inspector enters/prints 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 will be documented in the "Labor Report Update" field.
5. 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.
6. Item 18: 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.
7. Click on the "Save" bar at the bottom of the page to close the "Signature" field.
8. Click on the "Back" button in the upper left hand corner to return to the "My Open Work Orders" page.
9. 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 for screenshot examples of printing from MainConn.
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 19: Obtain a printed name and title, signature, and date on the certification statement (see Attachment 2). The visual assessment form must be certified with a signature from a manager that meets the definition of a signatory in MSGP Permit Section B.11.A (e.g., FOD, Operations Manager; Deployed Environmental, Safety, and Health Group Leader; EPC Group Leader, EPC-CP Team Leader). The manager 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 will attempt to identify the pollutant source. Personnel will 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 will evaluate whether or not implementation of additional BMPs are needed in the pollution prevention plan to address the observed contaminant.

A cleanup of the site should be conducted if the pollutant source is known and well defined. The FOD, DEP, and MSGP representative of EPC-CP should also be contacted and made aware of the situation.

Refer to EPC-CP-QP-022, *MSGP 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 samplers, single stage stormwater samplers, or by grab sample 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*

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 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 must 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.

Measurable storm event – Precipitation that results in an actual discharge from your site that follows the preceding measurable storm event by at least 72 hours (3 days).

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*.

BMP	Best Management Practice
DEP	Deployed Environmental Professional
EPC-CP	Environmental Protection and Compliance – Compliance Programs
FOD	Facility Operations Division
IWD	Integrated Work Document
LANL	Los Alamos National Laboratory
MC Express	Maintenance Connection MC Express web application
MSGP	Multi-Sector General Permit
NPDES	National Pollutant Discharge Elimination System
SWPPP	Storm Water Pollution Prevention Plan

9.0 REFERENCES

Federal Register: *Final National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Industrial Activities.* Federal Register: September 29, 2008, Volume 73, Number 189

P1020-1, Laboratory Records Management

ADESH-AP-006, Records Management Plan

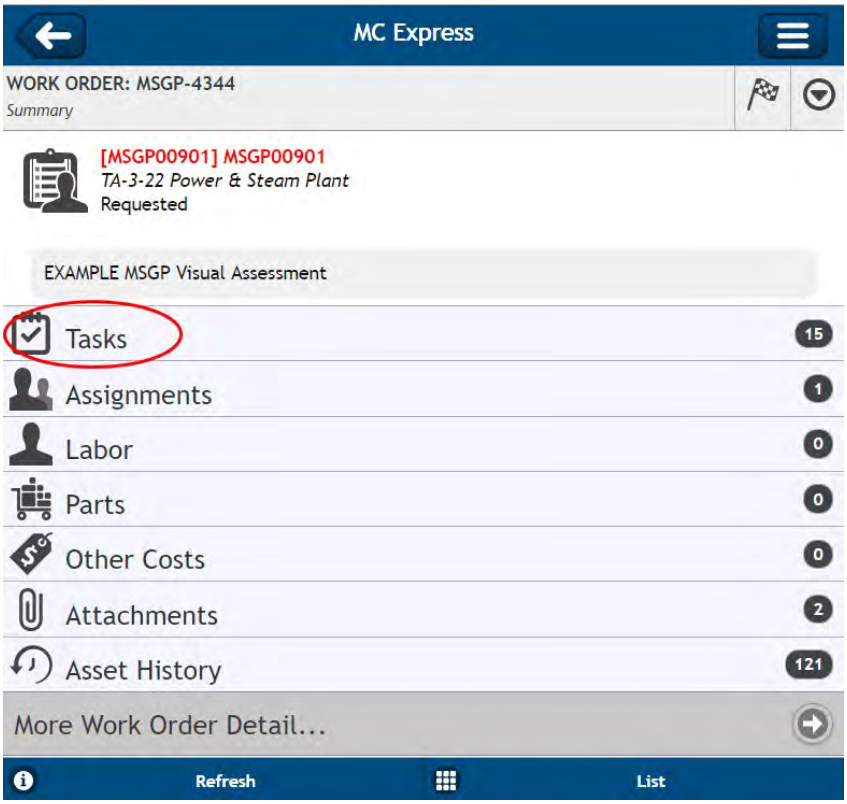
EPC-CP-QP-022, MSGP Corrective Actions

10.0 ATTACHMENTS

Attachment 1: *Screenshot Examples of EPC-CP-Form-1021 in MC Express*
Attachment 2: *EPC-CP-Form-1021 Hard Copy Example*
Attachment 3: *Screenshot Examples of Printing from Maintenance Connection*

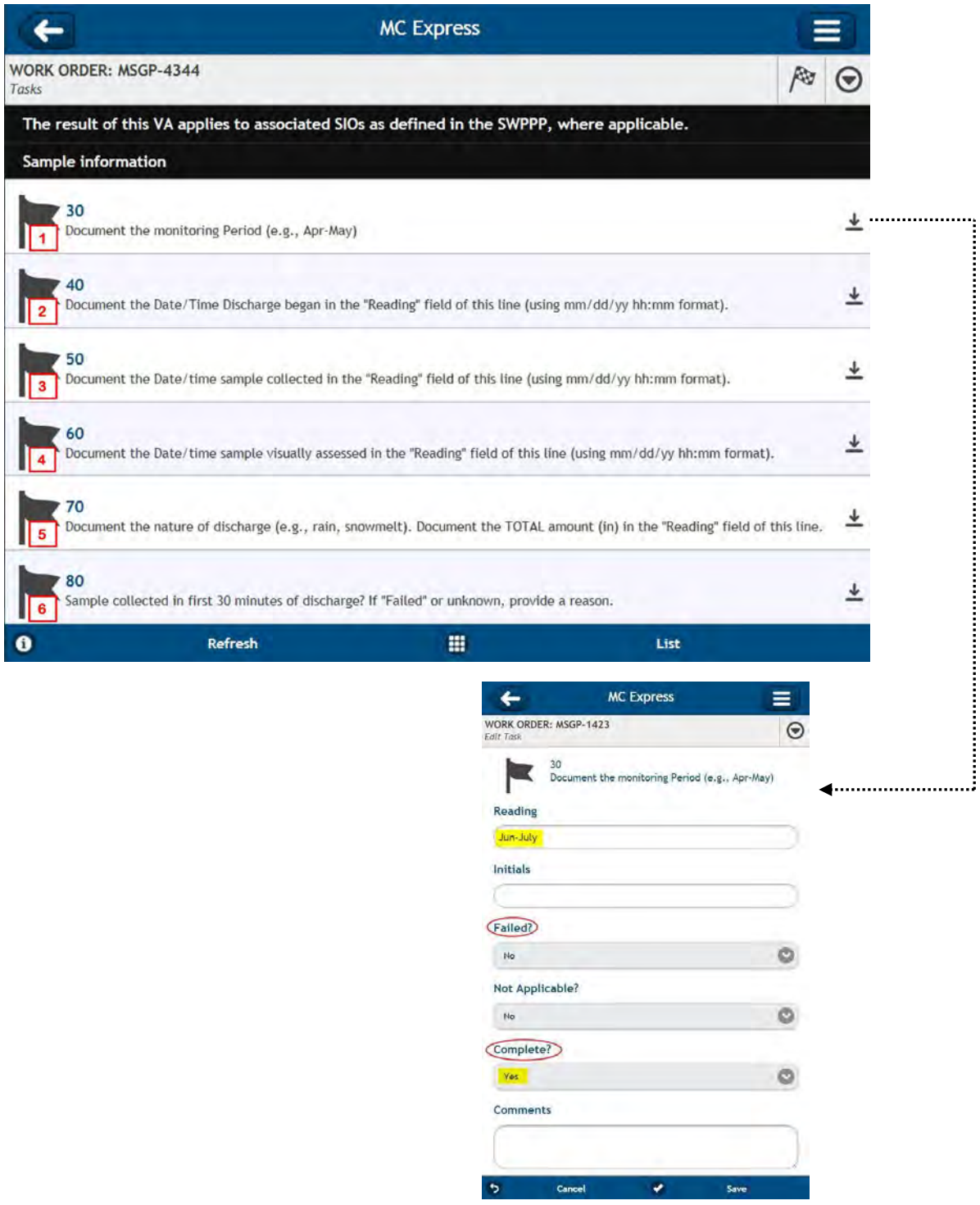
Attachment 1 – Screenshot Examples of EPC-CP-Form-1021 in MC Express

Work Order Summary Page (section 4.0, step 2)



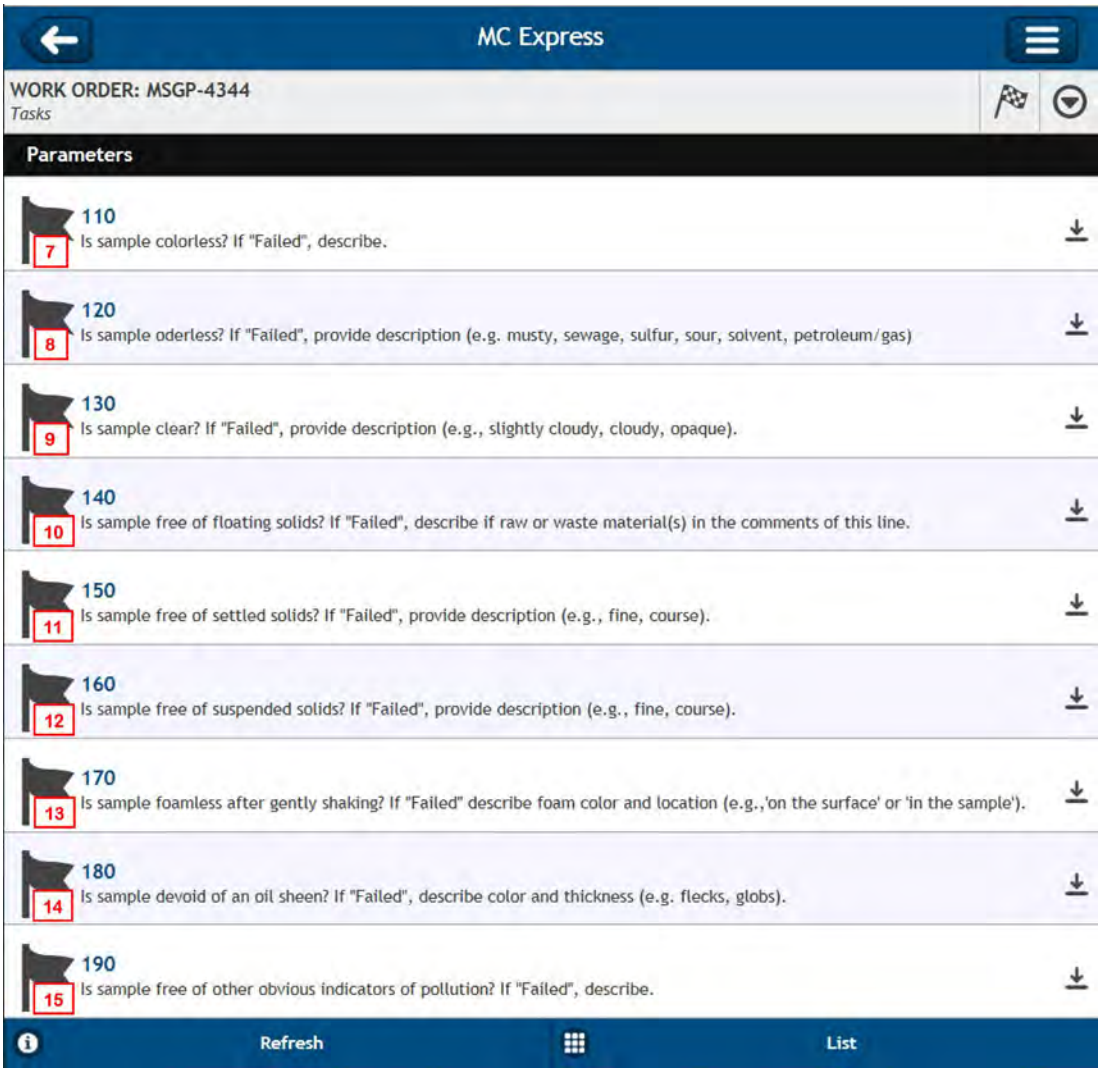
Attachment 1 – Screenshot Examples of EPC-CP-Form-1021 in MC Express

Work Order Tasks Page – Documenting Sample Information (Section 4.0, Step 3)



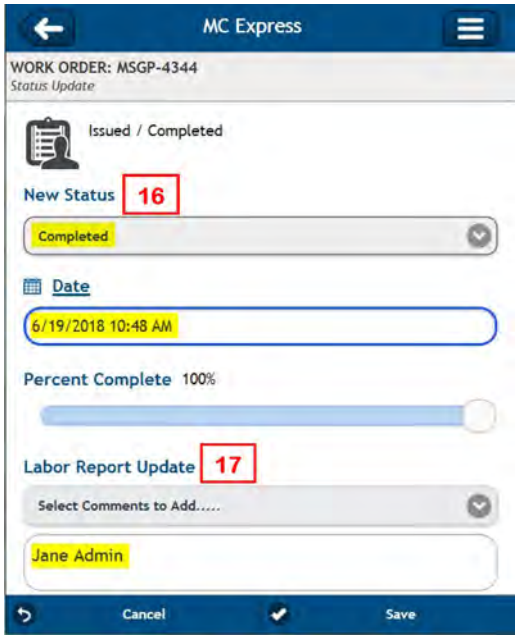
Attachment 1 – Screenshot Examples of EPC-CP-Form-1021 in MC Express (cont.)

Work Order Tasks Page – Assessing Parameters (section 4.2, step 7)



Attachment 1 – Screenshot Examples of EPC-CP-Form-1021 in MC Express (cont.)

Work Order Status Update Page (section 4.3, steps 3 and 4)



Work Order Status Update Page (section 4.3, step 6)

Attachment 2 – EPC-CP-Form-1021 Hard Copy Example

Los Alamos National Lab - ADESH

Work Order MSGP-4344

MSGP Monitoring Stations
Printed 6/19/2018 - 10:55 AM (Duplicate Copy)

Maintenance Details

Requested By: Admin, Jane on 6/7/2018 10:51:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 5/5/2010
Target: 12/31/2018
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
RG121.9
TA-3-22 Power & Steam Plant
Monitored Outfall (009)
MSGP00901

Contact: Admin, Jane
Phone: 123-4567

Reason: EXAMPLE MSGP 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				
1	30	Document the monitoring Period (e.g., Apr-May)		☐	☐	☐
2	40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		☐	☐	☐
3	50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		☐	☐	☐
4	60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		☐	☐	☐
5	70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.		☐	☐	☐
6	80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		☐	☐	☐
		Parameters				
7	110	Is sample colorless? If "Failed", describe.		☐	☐	☐
8	120	Is sample oderless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		☐	☐	☐
9	130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).		☐	☐	☐
10	140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		☐	☐	☐
11	150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, course).		☐	☐	☐
12	160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, course).		☐	☐	☐
13	170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g.,'on the surface' or 'in the sample').		☐	☐	☐
14	180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		☐	☐	☐
15	190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		☐	☐	☐

Labor Report

16 **Completed:** 6/19/2018 10:48:00 AM

17 **Report:** Jane Admin

18 Jane Admin — Signature / Name; 6/19/2018 — Date; _____ — Signature / Name; _____ — Date

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

EPC-CP-Form-1021.2 09/2018

Attachment 2 – EPC-CP-Form-1021 Hard Copy Example (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, DESH Group Leader, EPC Group Leader)

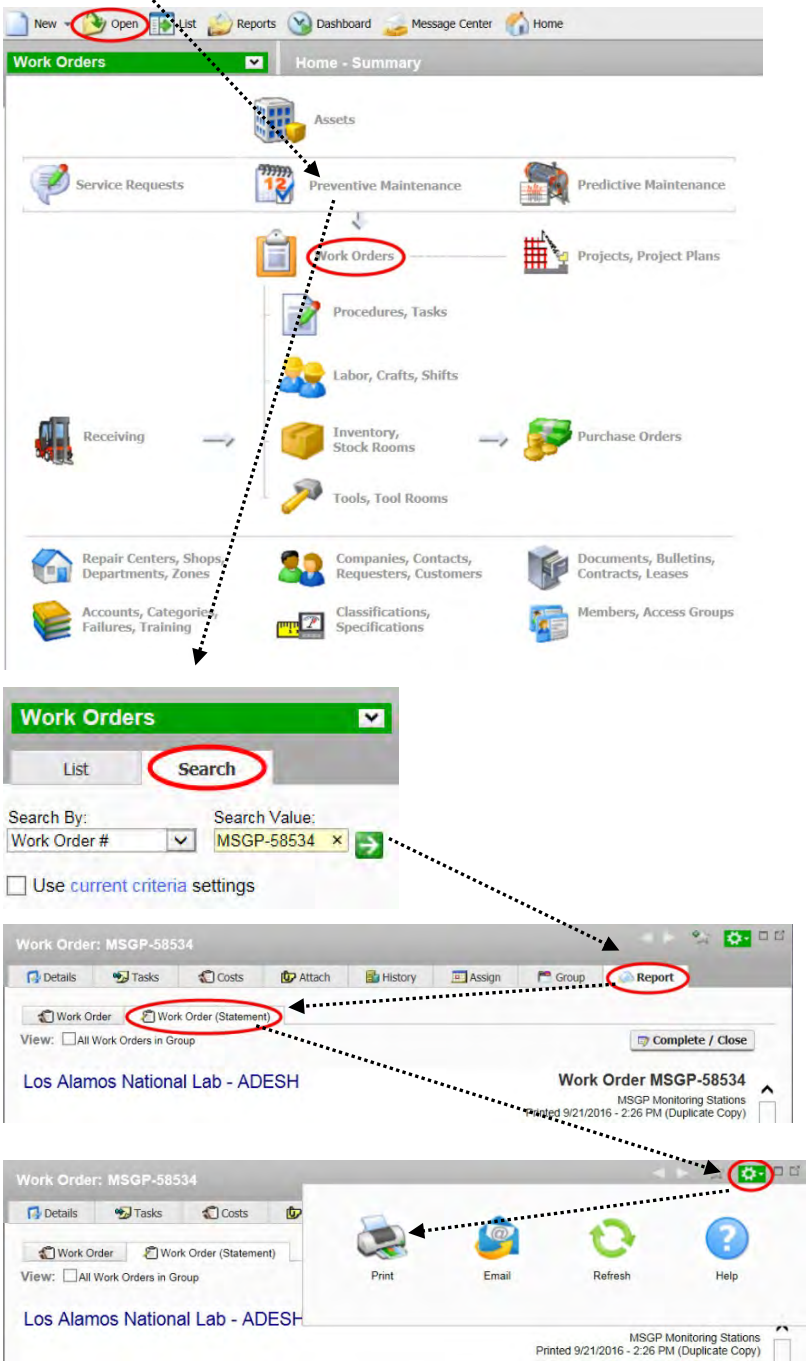
19 Print name and title:_____

Signature:_____ Date:_____

EPC-CP-Form-1021.2 09/2018

Attachment 3 – Screenshot Examples of Printing from Maintenance Connection

Maintenance Connection Modules Page (Section 4.4)



Attachment 19: **EPC-CP-QP-047, *INSPECTING STORMWATER RUNOFF SAMPLERS AND RETRIEVING SAMPLES FOR THE MSGP***

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:
	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.
ENV-RCRA-QP-047, Rev. 1	02/13	Annual Review and Revision
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.

Table of Contents

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

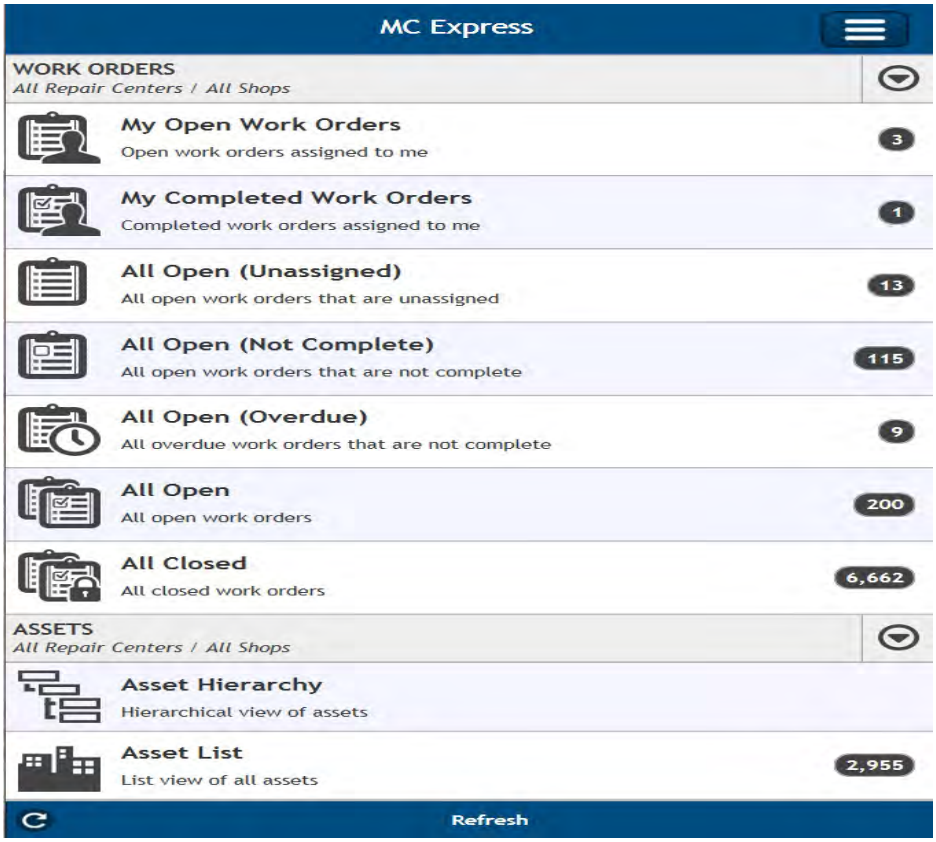
8.0 REFERENCES

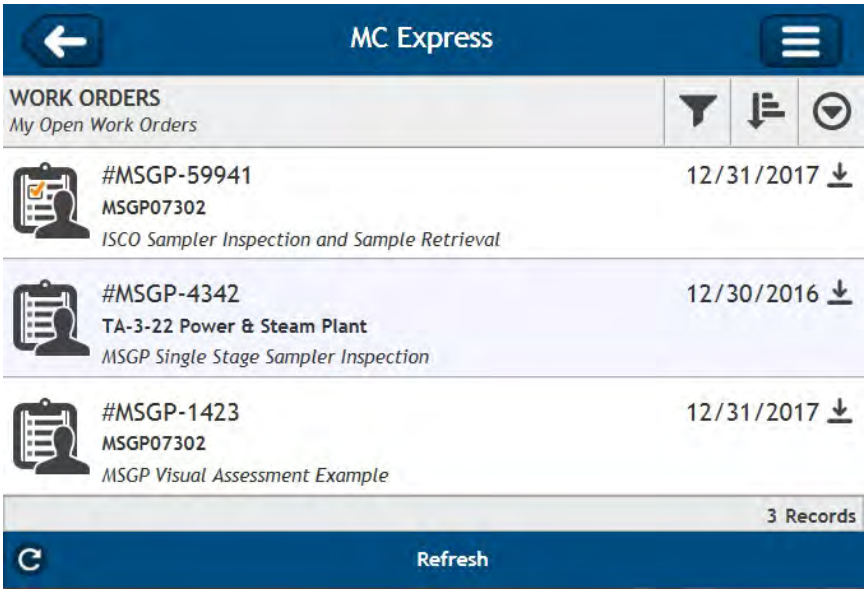
None.

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

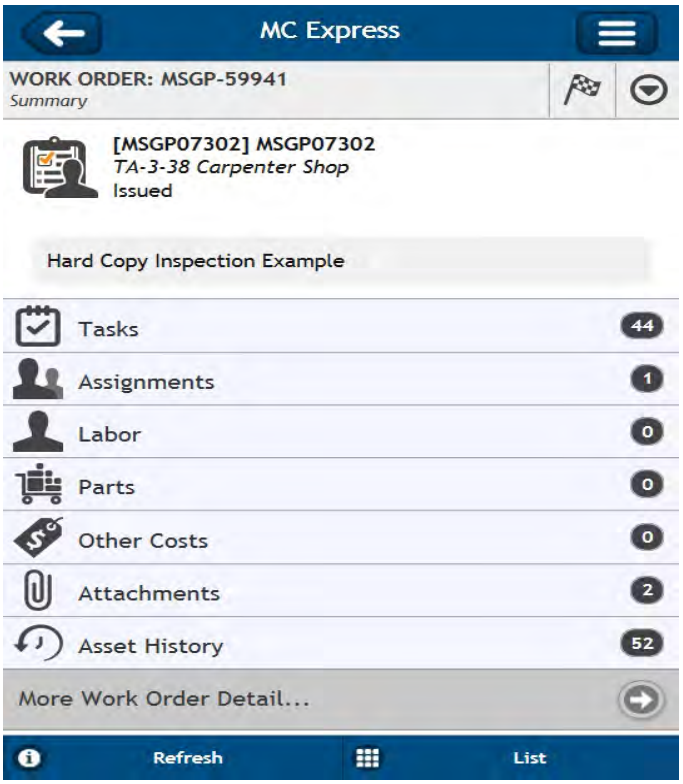
Attachment 1: Screenshot Examples of EPC-CP-Form-1010.02 in MC Express

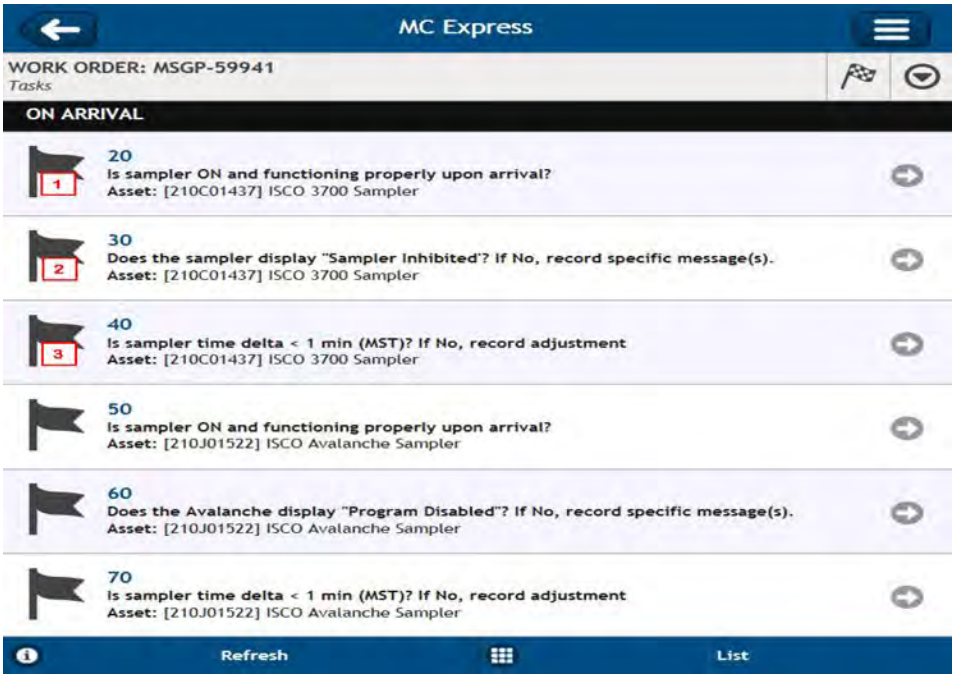




Attachment 1: Screenshot Examples of EPC-CP-Form-1010.02 in MC Express (cont.)

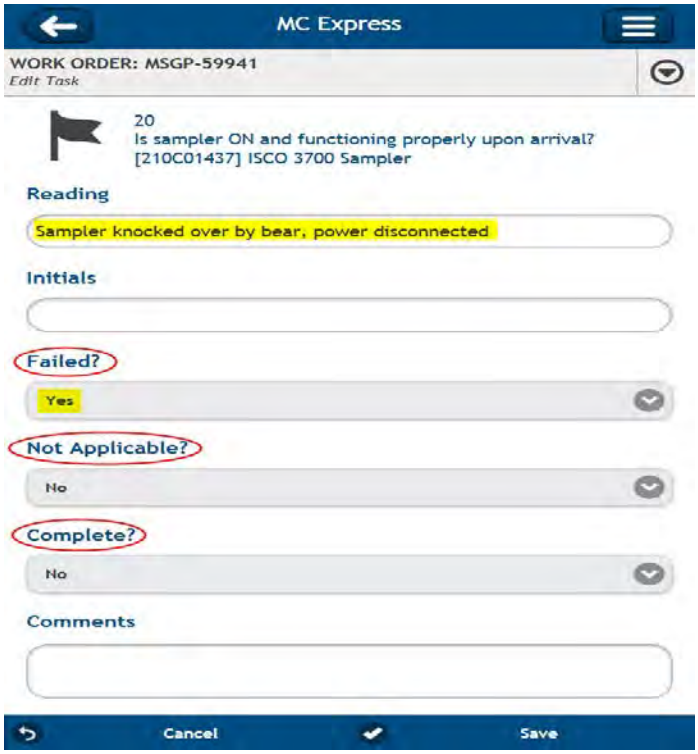
Page 2 of 7

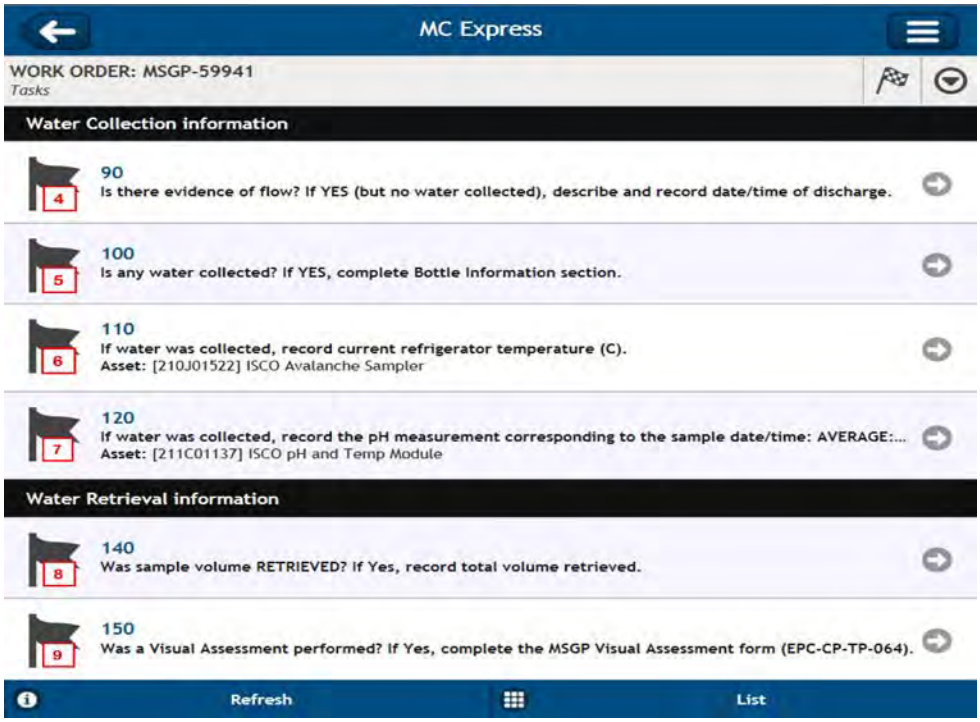




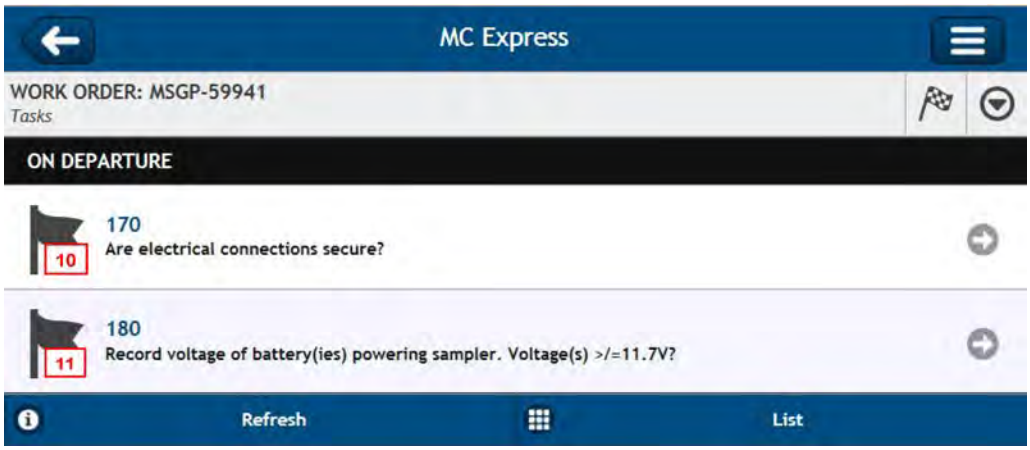
Attachment 1: Screenshot Examples of EPC-CP-Form-1010.02 in MC Express (cont.)

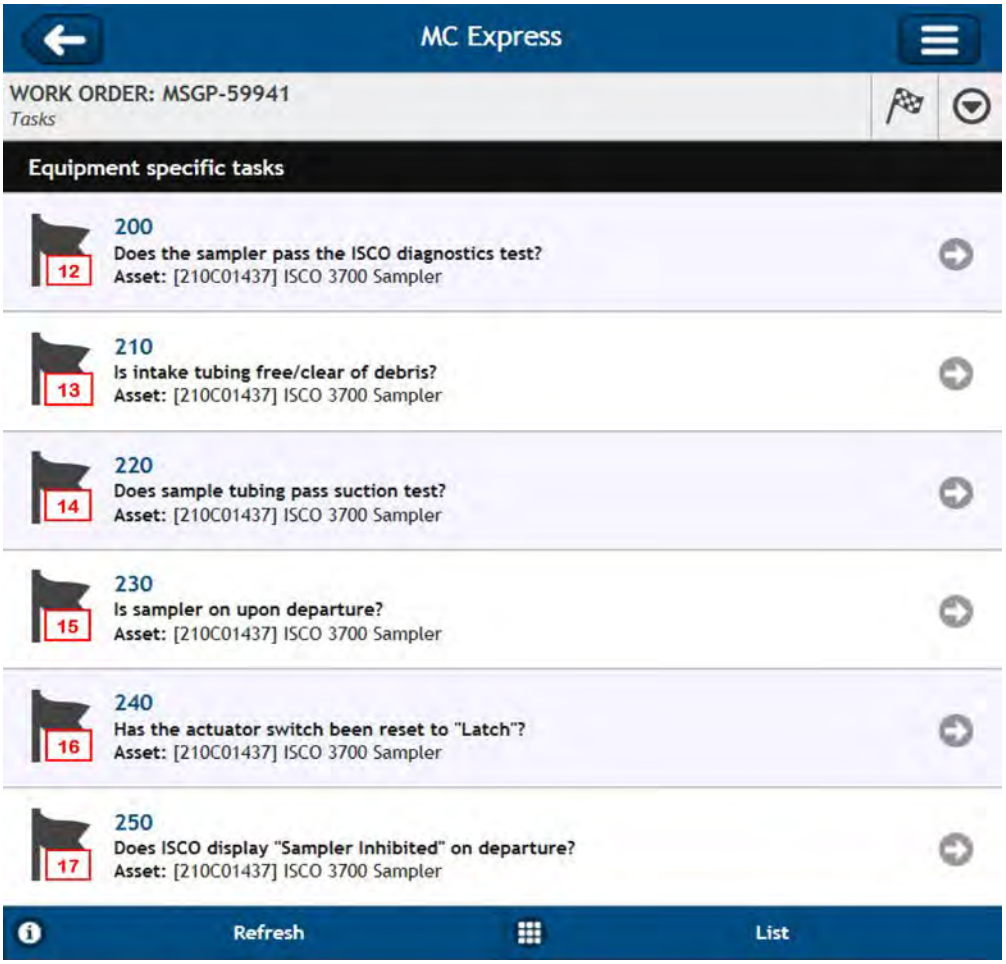
Page 3 of 7





Attachment 1: Screenshot Examples of EPC-CP-Form-1010.02 in MC Express (cont.)





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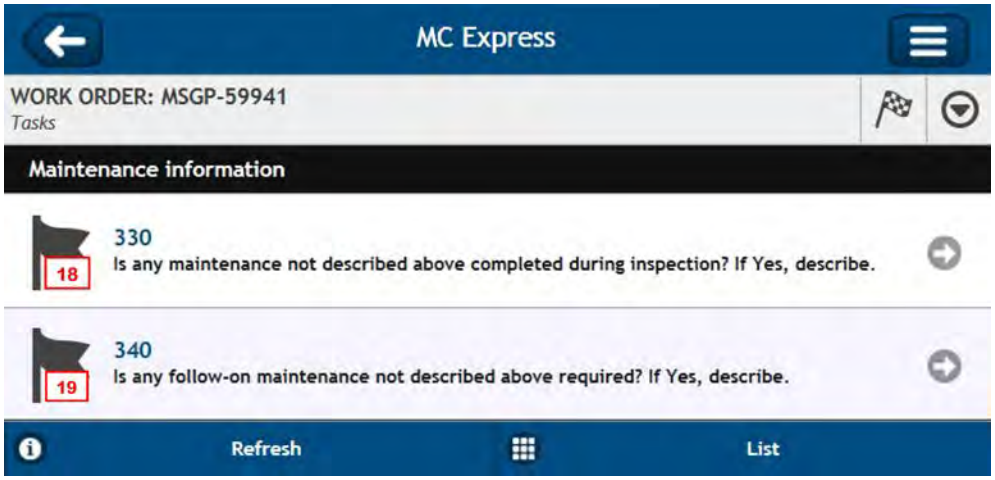

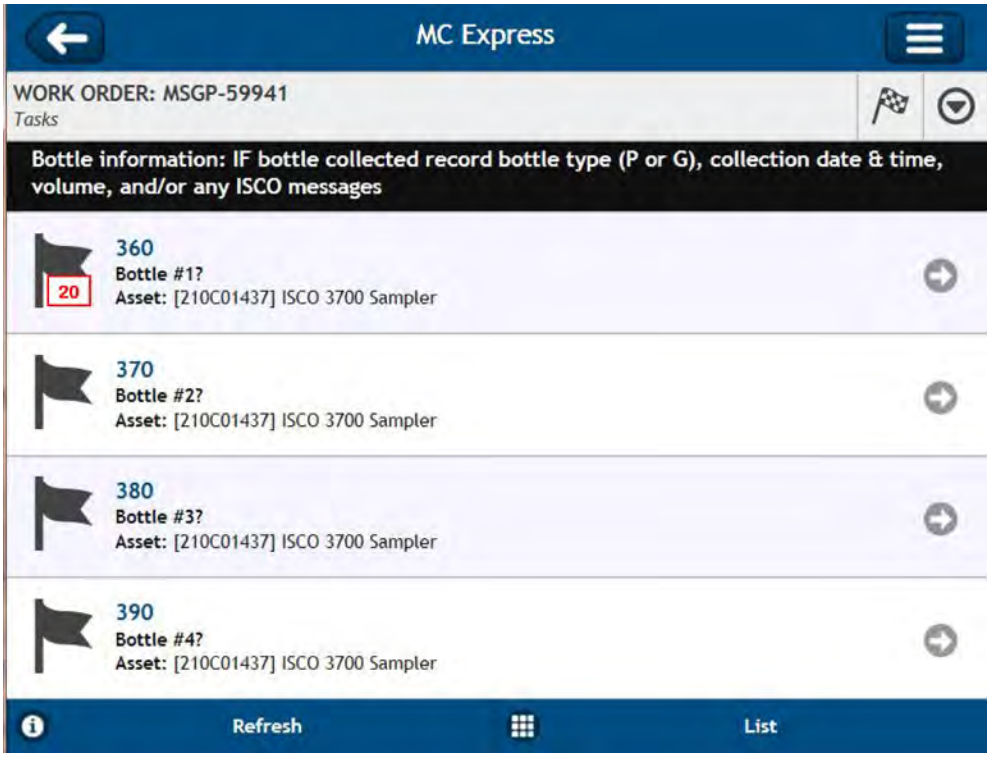

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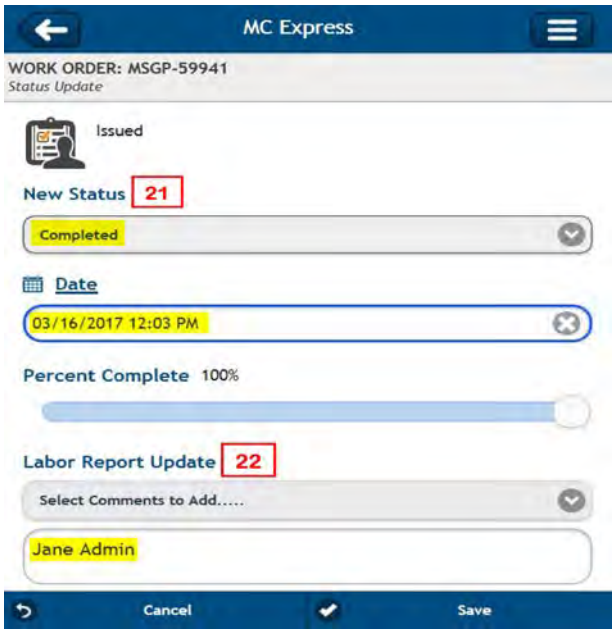
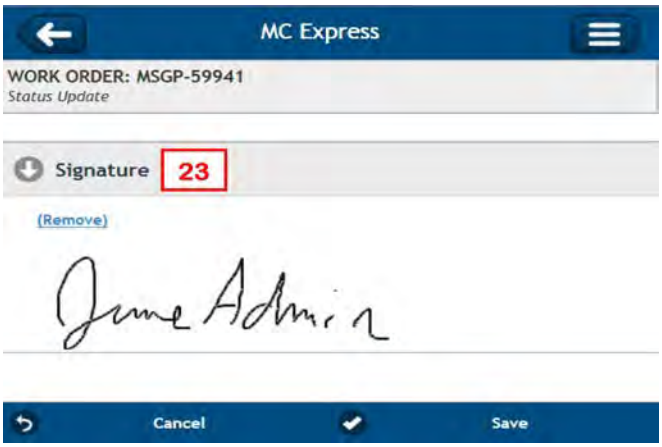


Attachment 1: Screenshot Examples of EPC-CP-Form-1010.02 in MC Express (cont.)



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

Signature / Name	Date	Signature / Name	Date
Jane Admin	5/30/2017		

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

WO ID:_____ Page ___of___

21 Date:_____ Time:_____

22 Name/Z#:_____

Name/Z#:_____

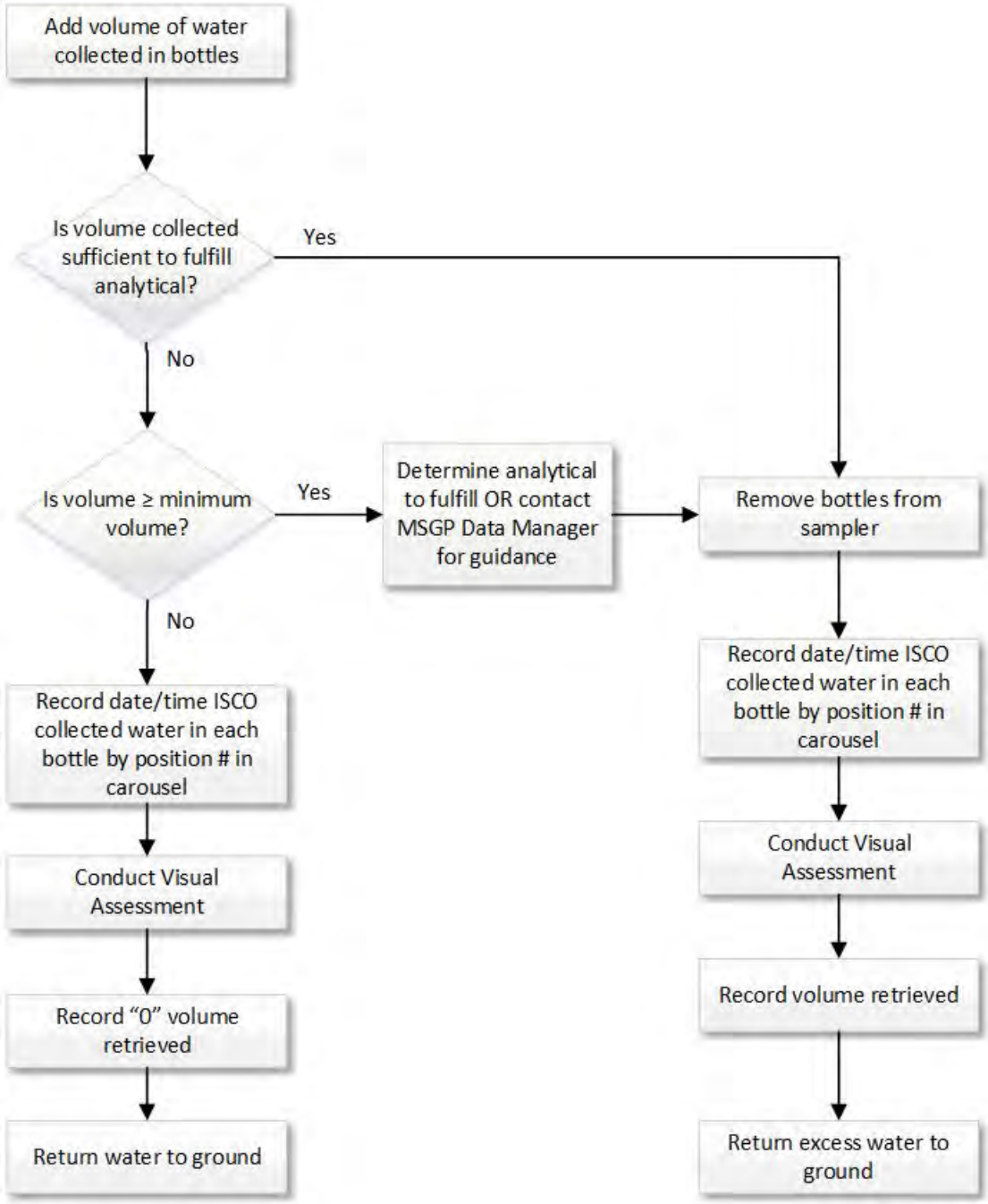
23 Lead Signature:_____

"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



Attachment 20: **EPC-CP-QP-2106, *PROCESSING MSGP STORMWATER SAMPLES***

EPC-CP-QP-2106	Revision: **0**	
Effective Date: 10/18/2019	Next Review Date: 10/18/2022	

Environment, Safety, Health, Quality, Safeguards, and Security Directorate

Environment Protection and Compliance – Compliance Programs Group

Quality Procedure

Processing MSGP Stormwater Samples

Hazard Grading: ☒ Low ☐ Moderate ☐ High/Complex

Usage Level: ☒ Reference ☐ UET ☐ Mixed: UET Sections: _____

Status: ☐ New ☐ Major Revision ☐ Minor Revision

☐ Review w/No Changes ☒ Other: New EPC-CP format and numbering system

Safety Basis: ☒ N/A ☐ USQ ☐ USI Number: _____

Document Author/Subject Matter Expert:

Name:	Organization:	Signature:	Date:
Holly L. Wheeler	EPC-CP	Signature on File	10-17-19

Derivative Classifier: ☒ **Unclassified or** ☐ _____

Name:	Organization:	Signature:	Date:
Steven E. Wolfel	EPC-CP	Signature on File	10-17-19

Approval Signatures:

EPC-CP Reviewer:	Organization:	Signature:	Date:
Terrill W. Lemke	EPC-CP Team Leader	Signature on File	10-17-19
EPC-CP RLM:	Organization:	Signature:	Date:
Taunia Van Valkenburg	EPC-CP Group Leader	Signature on File	10-18-19

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-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 a step describing evidence of flow, and added section for addressing excess stormwater material.
EPC-CP-QP-048 R4	01/31/2019	Sample Collection Log form and associated text updated. Added text for collecting quality control samples.
EPC-CP-QP-2106 R0	10/18/2019	Supersedes EPC-CP-QP-048 R4. New EPC-CP procedure format and numbering system. Minor editorial updates.

Table of Contents

1.0 INTRODUCTION

Triad LLC, the operator for Los Alamos National Laboratory (LANL or the Laboratory), conducts stormwater monitoring activities pursuant to the National Pollutant Discharge Elimination System (NPDES), Multi-Sector General Permit (MSGP). As part of this monitoring, Environmental Protection and Compliance, Compliance Programs (EPC-CP) personnel collect stormwater discharge samples from outfalls at industrial sites and prepare them for analysis.

1.1 Purpose

This procedure describes the process for filtering, preserving and preparing stormwater samples for shipment to an analytical laboratory from locations where EPC-CP conducts stormwater monitoring activities required pursuant to the NPDES MSGP. This procedure may also be used for other Associate Laboratory Directorate for Environment, Safety, Health, Quality, Safeguards, and Security (ALDESHQSS) stormwater monitoring activities as needed.

1.2 Scope

Stormwater samples are collected in the field with either a refrigerated Avalanche® or ISCO 3700 automated sampler, single stage sampler, or by hand. When in-line filtration is not possible, sample filtration, along with chemical preservation (as required) is 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 Environmental Protection Agency (EPA) and New Mexico Water Quality Control Commission guidelines. MSGP monitoring samples are collected and analyzed according to test procedures approved under Title 40 of the Code of Federal Regulations Part 136 unless other test procedures have been specified in the MSGP. Quantitation limits associated with these test procedures are sufficiently sensitive to meet MSGP limits.

1.3 Applicability

This procedure applies to EPC-CP technical staff and subcontractor personnel (as applicable) who conduct processing and chemical preservation of stormwater samples either in the EPC-CP Stormwater Laboratory or in the field.

The MSGP Program Lead is the primary person responsible for this procedure. EPC-CP personnel are appointed responsibility for a subset of sampling stations. Other stormwater monitoring programs or projects utilizing this procedure will refer to program or project specific roles and responsibilities.

2.0 PRECAUTIONS AND LIMITATIONS

The hazard level for the activities in this procedure is **LOW.** An Integrated Work Document Part II (2101 Form) will address any site-specific requirements and training for Facility Operations Divisions (FOD) if required by the FOD.

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

Refer to the most current revision of the MSGP or program/project specific Sampling and Analysis Plan (SAP) to determine the need for collecting quality control samples. Collect the types and quantities of quality control samples at the locations specified.

Schedule and complete stormwater processing to meet the analytical holding time requirements identified in the MSGP SAP or as requested by the MSGP Program Lead. Other stormwater monitoring programs or projects utilizing this procedure will refer to their program or project specific SAP.

The MSGP Data Manager will generate Water Sample Collection and Processing Log/Field Chain of Custody (SCPL) 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 will be obtained from the EPC-CP Sample Management Office (SMO).

3.2 Performance Documents

Personnel performing this procedure will be familiar with the most current versions of the following documents if the equipment or chemicals are utilized.

- Peristaltic Pump User Manual (e.g., GeoTech)
- Material Safety Data Sheet or Safety Data Sheet for preservation chemicals

3.3 Special Tools, Equipment, Parts and Supplies

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)
- Water SCPL form
- Chain of Custody/Analysis Request
- EPC-CP MSGP SAP most recent revision for the current monitoring year OR project specific monitoring 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 (µm) and/or 0.10 µm cartridge filters (where applicable)
- Deionized water (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
- Cell phone (only government cell phones are allowed in secure areas) (See https://int.lanl.gov/policy/documents/P217.pdf for requirements for using portable electronic devices on Laboratory property.

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 is transferred (as necessary) during processing and shipped to the analytical laboratory.

***NOTE*:** Prior to performing any of the steps in the following sub-sections, ensure that you are wearing the proper clothing. Don nitrile gloves, safety glasses with side shields, and a lab coat. Confirm that the eyewash station is operational prior to processing samples.

4.1 Preparation for Processing Samples

Sample Retriever

[1] Arrange sample collection bottles on the workbench in order by MSGP sampling location, ensuring to distinguish bottles collected via in-line filtration from non-filtered bottles, where applicable.

CAUTION

Process only one sample set (i.e., samples listed on one SCPL form or samples from one location) at a time to ensure stormwater from different locations is not co-mingled.

[2] Cross-check the Location ID (e.g., MSGP00201) on the sample bottles with the LOCATION ID on the SCPL form (see example in Attachment 1).

[3] Ensure the pre-populated information on the SCPL form is correct. Document any changes [e.g., change FIELD MATRIX code from rain (WT) to snowmelt (WM)].

[4] Write the following information on the SCPL.

[a] Sampler Inspection and Sample Retrieval form (refer to EPC-CP-QP-2103) identification number (e.g., Work Order: MSGP-xxxx);

[b] Date/time the sample was collected in the field (e.g., date/time automated sampler filled sample bottles or a grab sample was taken);

[c] Date/time the sample was retrieved from the field;

[d] "Not Applicable" (N/A) in the LOCATION SYNONYM(S) field unless the information is required by the SAP;

[e] N/A in the PRIORITY box if box is not pre-populated;

[f] Any pertinent information regarding sample collection and/or retrieval in the SAMPLE COMMENTS field (e.g., grab sample collected by hand, recent erosion observed up-gradient of sampler) or N/A;

[g] N/A for FIELD PARAMETER Sample Time (this is documented at the top of the form as COLLECTION TIME);

[h] pH measurement taken at the time the sample was collected in the field (if applicable) or N/A;

[i] Indicate if a visual assessment was performed.

- IF a visual assessment **WAS NOT** performed,
  THEN write N or No in the Visual Inspection space.
- IF a visual assessment **WAS** performed,
  THEN write Y or Yes in the Visual Inspection space and the identification number from the MSGP Visual Assessment form (refer to EPC-CP-QP-2105) (e.g., MSGP-xxxx).

[j] The printed name and signature of the person who retrieved the sample in the COLLECTED BY box and date/time the sample was retrieved from field

[5] IF the person who retrieved the sample is processing,
THEN write N/A in the first RELINQUISHED BY and RECEIVED BY boxes.

[6] IF the person who retrieved the sample is NOT processing,
THEN

[a] He/she will print and sign his/her name and the date/time samples are relinquished to the processor in the RELINQUISHED BY box.

[b] The processor will print and sign his/her name and the date/time samples are received in the first RECEIVED BY box.

Sample Processor

[7] Ensure the following information is correct for the analysis requested on the SCPL.

[a] Sample container volume and type [e.g., 500 milliliter (mL) POLY].

[b] Preservation type (e.g., ICE, HNO_3).

[c] Note any deviation from the planned sample container volume, type, or preservation on the SCPL.

[8] Determine which samples require filtration and chemical preservation as requested on the SCPL.

[a] Mark each container lid with the 3-digit outfall ID, required analysis, filtration requirement, and preservative requirement.

***NOTE 2*:** Requirements are also identified in the most current SAP revision.

[9] For split samples, follow these steps:

[a] Turn the sample collection bottle upside down multiple times to ensure sediment is loose from the bottom of the bottle.

[b] Pour sample into sample containers ensuring the sample remains homogenized throughout the transfer.

[10] Refer to Section 4.2 Filtering Samples, Section 4.3 Preserving Unfiltered and Filtered Samples, and Section 4.4 Quality Control Samples as needed.

[11] Indicate if each sample on the SCL was collected by writing Y for Yes or N for No in the COLLECTED Y/N box.

[12] IF the SPECIAL INSTRUCTIONS box is not pre-populated,
THEN write N/A in the box.

[13] Document any other deviations from the planned sample processing on the SCPL (e.g., turbid sample required extra filtration step, used standard deionized water in lieu of ultrapure water for field blank) under PROCESSING COMMENTS or SAMPLING COMMENTS,

OR write N/A.

[14] IF no further processing is required (e.g., chemical preservation),
THEN apply a chain-of-custody seal/tape around the bottle and lid and sign and date the seal/tape.

[15] The person processing the sample will print and sign his/her name and indicate the date/time samples were processed in the PROCESSED BY box.

[16] Proceed to Section 4.5.

4.2 Filtering Samples

Filter samples if specified on the SCPL or if an in-line filter was not used during sample collection.

[1] Select the appropriate sized cartridge filter (e.g., 0.10µm or 0.45µm).

[2] Set up the filter assembly.

[a] Attach an appropriate amount of silicone tubing to both ends of the cartridge filter.

[b] Place the filter upstream of the peristaltic pump to prevent over-pressurization.

[c] IF the sample contains a significant amount of sediment,
THEN a pre-filter of the same size or larger micron capacity may be used.

[3] For split filtered samples, follow these steps:

[a] Move the intake tube up and down through the sample during filtration.

NOTE 1: A sample collected solely for filtration can be filtered without being homogenized by gently shaking.

[4] Replace the filter if any of the following conditions occur:

- flow diminishes,
- the pump begins to make a grinding sound, or
- the tubing is forced off the filter by backpressure.

[5] Place the lid on the container.

[a] Ensure the lid is securely affixed to the container.

[b] Add a check mark next to the filtered requirement previously marked on the lid to indicate that filtration has been completed.

[c] Clean and dry the exterior of sample container.

[d] Check sample container for leakage and breakage.

[6] Remove and dispose of filter and tubing when filtration of one sample set (location) has been completed.

***NOTE 2*:** A new filter must be used with each new sample set.

[7] Return to Section 4.1, Step 11.

4.3 Preserving Unfiltered and Filtered Samples

Preservation entails the addition of acid or base to a sample. Acids currently used include hydrochloric acid (HCl), nitric acid (HNO_3), and sulfuric acid (H_2SO_4). Bases currently used in preservation include sodium hydroxide (NaOH). Review the appropriate Material Safety Data Sheet or Safety Data Sheet for specific guidelines prior to preserving samples. Specific acids/bases used

depend on the required monitored parameters and are subject to change (e.g., biennial Clean Water Act §303(d)/305(b) Integrated Report updates).

WARNING
Preservatives are strong acids and bases that can cause severe burns. Take extreme care when using these acids and bases.

[1] Review the analysis requested on the SCPL or SAP.

[2] Select the pre-measured preservative type and size that matches the sample container size.

[a] IF you only have one size pre-measured preservative that does not match the sample container size,
THEN you will use more than one. For example, if you have a 1-liter sample container and 500 mL pre-measured preservative vial, you will need to add two preservative vials to the sample container.

***NOTE*:** 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). Error in measurement precision may lead to a risk of violating Department of Transportation shipping requirements.

[3] Add the preservative (acid or base) to the sample.

[a] Securely affix the lid to the container.

[b] Agitate the preserved sample by turning the container upside down two to three times.

[4] Add a check mark next to the preservation type previously marked on the lid to indicate that preservation has been completed.

[a] Clean and dry the exterior of sample container.

[b] Check sample container for leakage and breakage.

[5] Return to Section 4.1, Step 11.

4.4 Quality Control Samples

Refer to the SCPL or the program specific SAP for the types and quantities of quality control samples and the locations where these samples will be collected.

4.4.1 Field Blank Samples

[1] Review the analysis requested on the SCPL or SAP.

[a] Ensure the sample container volume, type, and preservation type is correct for the analysis requested (e.g., 500 mL POLY, HNO_3).

[b] Note any deviation from the planned sample container volume or type on the SCPL.

CAUTION

DO NOT use tap, distilled, or drinking water purchased from a local store. These sources may not meet the water quality standards specified in the New Mexico Administrative Code (Title 20, Chapter 6, Part 4)**.**

[2] Obtain analyte free water (e.g., High Performance Liquid Chromatography grade ultrapure in amber glass) in sealed bottle(s) in sufficient quantity to fulfill the analysis requested.

[3] Select another empty sample container(s) of the same type and volume for the analysis requested.

[4] Mark the bottle and container lids with the 3-digit outfall ID and "Field Blank".

[5] Transport both the field blank bottle(s) and container(s) to the sampling location.

[6] During retrieval of samples, open the field blank bottle(s) and pour the analyte free water into the field blank sample container(s).

[7] Securely affix the lid(s) to the container(s).

[8] Replace the lid on the analyte free water bottle.

[a] IF 500 mL or greater remain in the bottle,
THEN replace lid and mark the bottle with the date it was opened and "For Decon Use Only".

[b] IF less than 500 mL remain in the bottle,
THEN dispose of water in the EPC-CP Stormwater Laboratory sink and dispose of the bottle.

[9] Return the field blank containers with retrieved samples to the EPC-CP Stormwater Laboratory (TA-59-01) for any further required processing.

[10] Return to Section 4.1, Step 11 to complete sample processing.

4.4.2 Field Duplicate Samples

[1] Review the analysis requested on the SCPL or SAP.

[a] Ensure the sample container volume, type, and preservation type is correct for the analysis requested (e.g., 500 mL POLY, HNO_3).

[b] Note any deviation from the planned sample container volume, type, or preservation on the SCPL.

[2] Field duplicate samples must be samples collected from the same location, at the same time, and in the same manner:

- Select two sample collection bottles next to each other in the automated sampler carousel.

OR

- Select one sample collection bottle to split into separate sample containers

[3] For split samples, follow these steps:

[a] Turn the sample collection bottle upside down multiple times to ensure sediment is loose from the bottom of the bottle.

[b] Pour sample into sample containers ensuring the sample remains homogenized throughout the transfer.

[4] Return to Section 4.1, Step 11 to complete sample processing.

4.5 Handling Excess Stormwater

Minimize the amount of stormwater sample brought into the EPC-CP Stormwater Laboratory. Field personnel will attempt to retrieve only the volumes needed to fulfill the requested analyses from the current MSGP SAP or program/project specific SAP.

[1] IF any excess stormwater sample exists after processing has been completed, THEN perform the following steps.

Sample Processor

[a] Ensure the container is labeled with the site of origin, date and time sample was collected, and "Return to Site."

[b] Place the container in the designated storage location in the EPC-CP Stormwater Laboratory.

EPC-CP technical staff

[c] Return the sample to the site of origin as soon as possible.

[d] Discharge at the sampler location.

[2] IF the excess stormwater has been altered (e.g., tap water or preservative added), THEN contact the TA-59-0001 Waste Management Coordinator for further instruction.

4.6 Submit Samples for Shipping to Offsite Analytical Laboratory

Sample Processor

[1] Deliver completed SCPL(s) to the MSGP Data Manager.

MSGP Data Manager

[2] Process the sample information in the EIM system.

[a] Capture any documented deviations from planned conditions (as noted on the SCPLs).

[b] Generate Chain of Custody/Analysis Request (COC) form(s) and sample container labels to reflect the processed samples (see examples in Attachments 2 and 3).

Sample Processor

[3] Ensure the sample containers are securely sealed and wiped dry.

[4] Cross-check to ensure the Sample ID on the SCPL matches the Field Sample ID on the COC.

[5] Compare the information from the SCPL and lid of each container and apply the correct labels to the sample containers.

[6] IF the person who processed the sample is NOT submitting the samples to the SMO, THEN

[a] He/she will print and sign his/her name and the date/time samples are relinquished to the submitter in the second RELINQUISHED BY box.

[b] The submitter will print and sign his/her name and the date/time samples are received in the second RECEIVED BY box.

EPC-CP technical staff

[7] Place the sample(s) in a cooler with sufficient Blue Ice® (or equivalent) to maintain the required preservation temperature (≤4° C).

***NOTE*:** Cushioning material (e.g., bubble wrap) may be used to separate containers to avoid breakage during transport

[8] Place the SCPL(s) and COC(s) in a zip lock type bag, seal, and place in the cooler with samples.

[9] Transport samples to the SMO.

[a] Deliver samples during SMO business hours by 2pm for same day shipping.

[b] Coordinate with the SMO for delivery during other times or for delivery of samples that have limited holding times.

[c] If delivery of samples to the SMO will be delayed, place sample containers with SCPL(s) in the EPC-CP Stormwater Laboratory refrigerator and ensure the refrigerator is locked.

[10] Complete the COC form as follows:

[a] On the Relinquished By line, the person submitting the sample(s) will sign and print his/her name and date/time samples are relinquished to the SMO.

[b] The SMO personnel accepts the sample(s) by signing and printing his/her name and recording the date/time on the Received By line.

[11] Complete the SCPL form as follows:

[a] Ensure all fields are filled out with sample information or N/A. Do not leave blank fields.

[b] In the RELINQUISHED BY box, the person submitting the sample(s) will sign and print his/her name. Sign and print your name on the SCPL in the "Relinquished By" box.

[c] Record the date/time that matches the data and time RELINQUISHED BY on the COC.

[d] Record the COC number (e.g., 2017-xxxx) in the RECEIVED BY box.

[12] Ensure the following steps are taken:

[a] SMO makes a copy of the SCPL(s) to accompany the COC and samples.

[b] Keep the original SCPL(s) for the MSGP program.

[c] Make a copy of the signed Chain of Custody/Analysis Request.

[13] Deliver the copy of the signed COC and original SCPL(s) to the MSGP Data Manager for record keeping.

5.0 TRAINING

All EPC-CP personnel that execute the activities specified in this procedure must meet the minimum qualification and training requirements for their position as identified EPC-CP-PIP-2101, NPDES Multi-Sector General Permit Program. This will include “self-study” (required reading) for this procedure as assigned and documented in accordance with ENV-DO-QP-115, *Personnel Training*. Other participating LANL groups may require training documentation pursuant to local procedures.

Contract personnel that execute the activities specified in this procedure will be qualified and trained as required by the Exhibit D and Exhibit F. In addition, contract personnel will be required to complete “self-study” (required reading) of this procedure.

Personnel performing this procedure will be familiar with the most current versions of the following procedures and operation manuals:

- EPC-CP MSGP SAP for the current monitoring year
- EPC-CP-QP-2103 Inspecting Stormwater Runoff Samplers and Retrieving Samples for the MSGP

6.0 RECORDS

EPC-CP is the Office of Record for this document and must be maintained in accordance with PD1020, *Document Control and Records Management* and ADESH-AP-006, *Records Management*

Plan. Records generated by this document will be submitted to the Records Management designated point of contact or document manager for document management.

Below are records generated as a result of implementing this procedure. Records generated are identified by title and type.

Record Title	QA Record	Non-QA Record
*Water Sample Collection and Processing Log/Field Chain of Custody	☒	☐
*Chain of Custody/Analysis Request	☒	☐
Copy of log book entry(s) (if a log book is used)	☒	☐
Other pertinent field or lab notes (if additional notes are required)	☒	☐

*The original document is part of the data package QA records for the SMO. MSGP retains a copy for tracking purposes only.

7.0 DEFINITIONS AND ACRONYMS

7.1 Definitions

See LANL *Definition of Terms*.

7.2 Acronyms

See LANL Acronym Master List.

COC	Chain of Custody/Analysis Request
EIM	Environmental Information Management
EPA	Environmental Protection Agency
EPC-CP	Environmental Protection and Compliance – Compliance Programs
LANL	Los Alamos National Laboratory
µm	Micron
mL	Milliliter
MSGP	Multi-Sector General Permit
N/A	Not Applicable
NPDES	National Pollutant Discharge Elimination System
SAP	Sample Analysis Plan
SCPL	Water Sample Collection and Processing Log/Field Chain of Custody
SMO	Sample Management Office

8.0 REFERENCES

None.

9.0 ATTACHMENTS

Attachment 1: *Water Sample Collection and Processing Log/Field Chain of Custody Example*
Attachment 2: *Sample Container Labels Example*
Attachment 3: *Chain of Custody/Analysis Request Example*

Attachment 1: Water Sample Collection and Processing Log/Field Chain of Custody Example

(Page 1 of 1)

Los Alamos National Laboratory

WATER SAMPLE COLLECTION AND PROCESSING LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 11743 **EVENT NAME:** MSGP 2018

SAMPLE ID: MSGP-18-153015 **WORK ORDER:** MSGP-12345

COLLECTION DATE/TIME: 07/01/18 16:03 **RETRIEVAL DATE/TIME:** 07/03/18 09:25

LOCATION ID: MSGP04301 **SAMPLER TYPE:** APS-R

LOCATION TYPE: WCS **SAMPLE PREP:** UF

LOCATION SYNONYM(S): N/A **FIELD QC TYPE:** REG

FIELD MATRIX: WT **SAMPLE USAGE:** COMP

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS	PROCESSING COMMENTS
N/A	MSGP-TSS	250 ~~500~~ ML POLY	1	ICE	Y	N/A	N/A

SAMPLE COMMENTS: N/A

FIELD PARAMETERS:

Sample Time N/A HH:MM pH 6.2 SU Visual Inspection Y SU

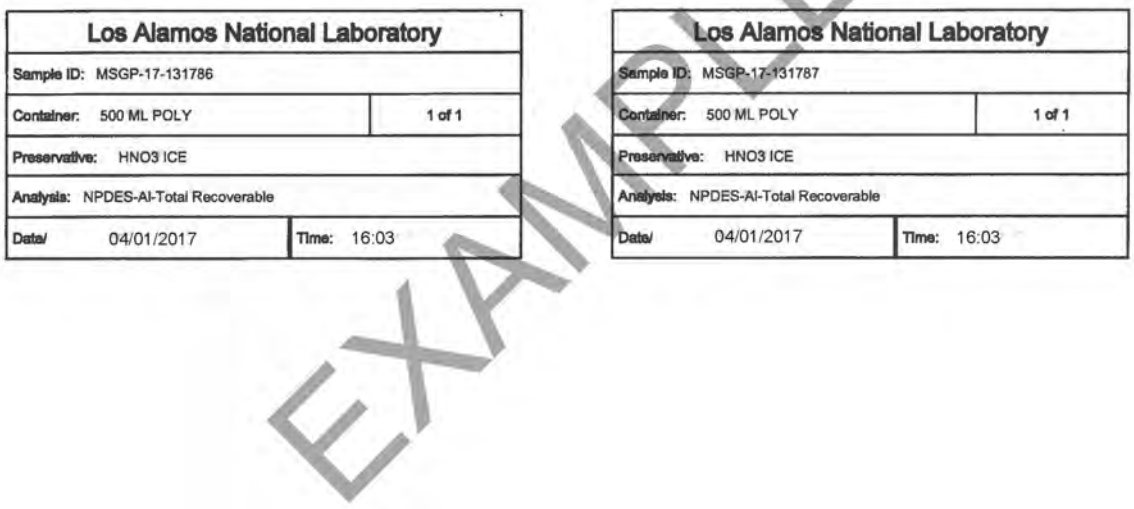
Visual Inspection WO# MSGP-67890

COLLECTED BY (Printed Name) (Signature)	Jane Doe	Date/Time 07/03/18 09:25			
RELINQUISHED BY (Printed Name) (Signature)	Jane Doe	Date/Time 07/03/18 10:05	RECEIVED BY (Printed Name) (Signature)	John Smith	Date/Time 07/03/18 10:05
PROCESSED BY (Printed Name) (Signature)	John Smith	Date/Time 07/03/18 13:00			
RELINQUISHED BY (Printed Name) (Signature)	John Smith	Date/Time 07/04/18 08:35	RECEIVED BY (Printed Name) (Signature)	See COC# 2017-1326	Date/Time
RELINQUISHED BY (Printed Name) (Signature)	N/A	Date/Time	RECEIVED BY (Printed Name) (Signature)	N/A	Date/Time

Report Date: 08/01/2018

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

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

Client Contact:

Lab Agreement #:

Site Name: Los Alamos National Laboratory

Project Number:

Analysis Turnaround Time:
24 Hour - ☐ Other - ☐
7 Days - ☐
14 Days - ☐
21 Days - ☐
28 Days - ☒

Rad Screening Info:

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

EXAMPLE

Special Instructions:

4/12/17

Relinquished by: Jane Doe	Print Name: Jane Doe	Date/Time: 4/12/17 15:40	Received by:	Print Name: B Green	Date/Time: 3:10
Relinquished by:	Print Name:	Date/Time:	Received by:	Print Name:	Date/Time:
Relinquished by:	Print Name:	Date/Time:	Received by:	Print Name:	Date/Time:

Attachment 21: **EPC-DO-QP-101, ENVIRONMENTAL REPORTING REQUIREMENTS FOR RELEASES OR EVENTS**

EPC-DO-QP-101	Revision: **3**	Los Alamos NATIONAL LABORATORY EST. 1943
Effective Date: 08/07/2017	Next Review Date: 08/07/2020	

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:
	EPC-CP, Group Leader	Signature on File	8-3-17
Responsible Line Manager	Organization	Signature:	Date:
	EPC-DO, Division Leader	Signature on File	8-7-17

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]*
0	02/09	New document
1	4/10	Revision and update
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.

Table of Contents

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

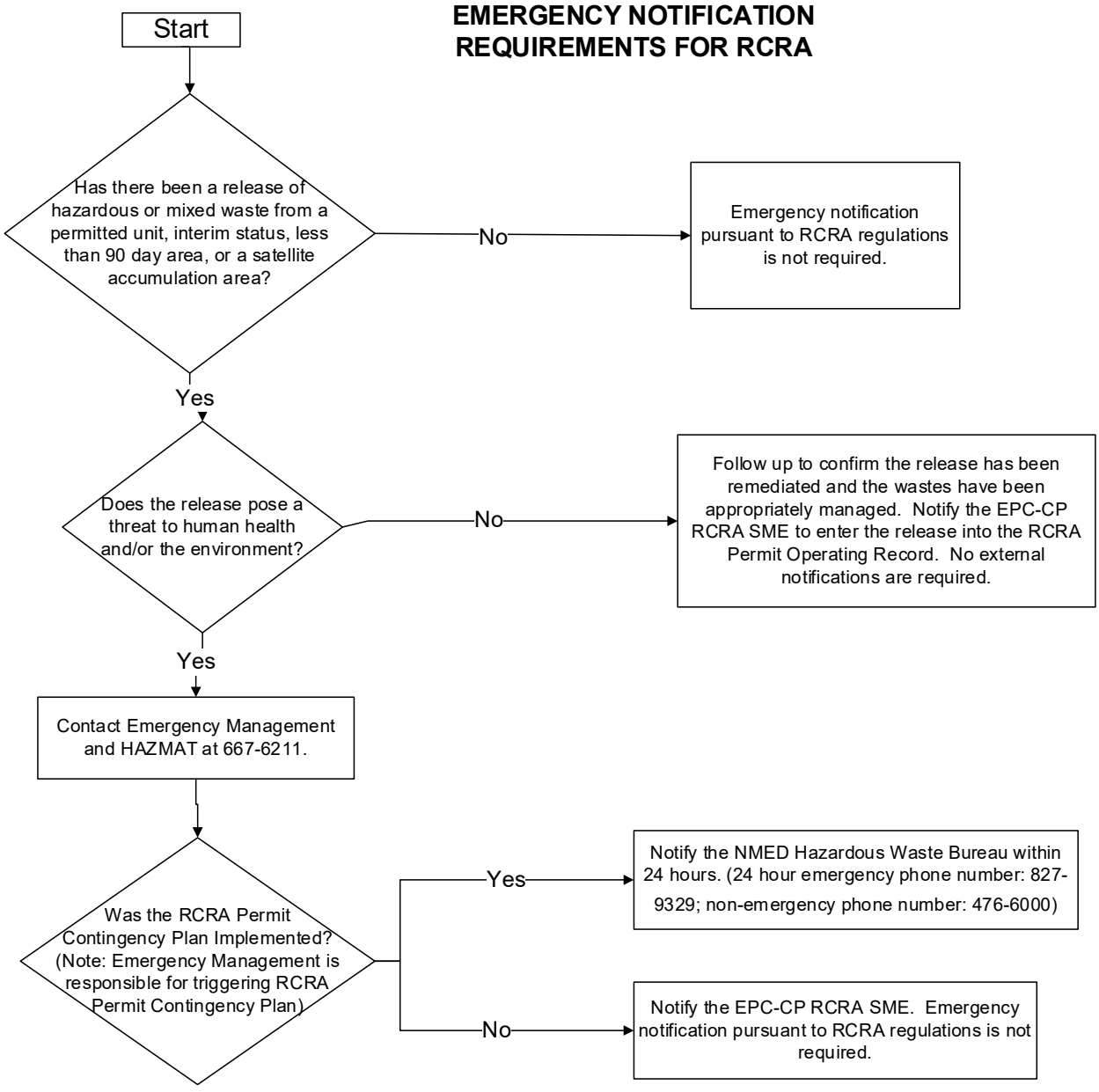
- National Response Center (NRC) Web Site: http://www.nrc.uscg.mil/
- NMWQCC Regulations, 20.6.2 NMAC, dated December 1, 2001
- P407, Water Quality
- P1020-1, Laboratory Records Management
- ADESH-AP-006, Records Management Plan

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.

Attachment 22:**ENV-CP-QP-007, *SPILL INVESTIGATIONS***

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:

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Michael T. Saladen	ENV-CP, Team Leader	Signature on File	08/31/15
Responsible Line Manager:	Organization:	Signature:	Date:
	ENV-CP, Group Leader	Signature on File	09/30/15

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.

Table of Contents

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)

Attachment 23: **EPC-CP-QP-2110, MSGP STORMWATER POLLUTION PREVENTION PLAN PREPARATION AND MAINTENANCE**

EPC-CP-QP-2110	Revision: **0**
Effective Date: 01/07/2020	Next Review Date: 01/07/2023

Environment, Safety, Health, Quality, Safeguards, and Security Directorate

Environment Protection and Compliance – Compliance Programs Group

Quality Procedure

MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance

Hazard Grading: ☒ Low ☐ Moderate ☐ High/Complex

Usage Level: ☒ Reference ☐ UET ☐ Mixed: UET Sections: _____

Status: ☒ New ☐ Major Revision ☐ Minor Revision

☐ Review w/No Changes ☐ Other: _____

Safety Basis: ☒ N/A ☐ USQ ☐ USI Number: _____

Document Author/Subject Matter Expert:

Name:	Organization:	Signature:	Date:
Holly L. Wheeler	EPC-CP	Signature on File	1-6-2020

Derivative Classifier: ☒ **Unclassified or** ☐ _____

Name:	Organization:	Signature:	Date:
Steven E. Wolfel	EPC-CP	Signature on File	1-6-2020

Approval Signatures:

EPC-CP Reviewer:	Organization:	Signature:	Date:
Terrill W. Lemke, Team Leader	EPC-CP	Signature on File	1-7-2020
EPC-CP RLM:	Organization:	Signature:	Date:
Taunia Van Valkenburg, Group Leader	EPC-CP	Signature on File	1-7-2020

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]*
EPC-CP-QP-2110, Rev. 0	01/07/2020	New document

Table of Contents

1.0 INTRODUCTION

The Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP), also referred to as the Permit, contains specific requirements for industrial activities of Los Alamos National Laboratory (LANL) covered by the permit. One requirement is the preparation, maintenance, and routine revision of a Stormwater Pollution Prevention Plan (SWPPP).

1.1 Purpose

Active MSGP facilities must be included in a SWPPP. The SWPPP is intended to document the selection, design, and installation of control measures to meet permit effluent limits. Additional documentation required by the Permit is to be kept with the SWPPP (including inspection maintenance, monitoring, and corrective action) and is intended to document the implementation of permit requirements.

1.2 Scope

This procedure contains information and specific steps for preparing a SWPPP, and identifying and documenting conditions in order to meet Permit requirements. Part 5 of the Permit contains specific requirements for developing, maintaining, and revising a SWPPP for facilities with stormwater discharge associated with industrial activities permitted under an MSGP. Part 5.5 describes the additional documentation required to be kept with the SWPPP.

1.3 Applicability

This procedure applies to Environmental Protection and Compliance-Compliance Programs (EPC-CP) technical staff, Deployed Environmental Professionals (DEPs), and subcontractor personnel (as applicable) who develop and maintain SWPPPs at MSGP regulated LANL facilities operated by Triad, LLC.

2.0 PRECAUTIONS AND LIMITATIONS

The hazard rating for the activities described in this procedure is **LOW** and does not require an Integrated Work Document.

3.0 PREPARING AN MSGP STORMWATER POLLUTION PREVENTION PLAN

Part 5 of the Permit contains the specific requirements for developing, maintaining, and revising a SWPPP. At a minimum, the SWPPP must contain the following elements:

- Stormwater pollution prevention team (Stormwater PPT);
- Site description (including a site map);
- Summary of potential pollutant sources;
- Description of control measures;

- Schedules and procedures;
- Documentation to support eligibility considerations under other federal laws; and
- Signature requirements.

Where the SWPPP refers to procedures in other facility documents, such as a Spill Prevention, Control and Countermeasure Plan or an Environmental Management System, copies of the relevant portions of those documents must be kept with the SWPPP.

The template provided in Attachment 1, EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* contains the elements required in a LANL MSGP SWPPP. Contact the MSGP Program Lead for questions regarding content.

3.1 Gathering Information for the SWPPP

SWPPP Preparer

[1] Contact the MSGP Program Lead for a copy of the most current SWPPP template.

[2] Obtain a copy of the previous year's SWPPP for reference (if one is available).

[3] Review the SWPPP template.

[a] Identify information that will need to be included in the SWPPP (e.g., MSGP sector, operational areas, Pollution Prevention Team member names, etc.).

[b] Identify documents that will need to be attached to the SWPPP (e.g., certifications, memorandums, maps, data summaries, endangered species reports, etc.).

[4] Identify documents and/or reports that are provided by EPC-CP.

[a] Contact the MSGP Program Lead with a request for needed information.

[5] Obtain maps as specified in the SWPPP template.

[a] Request a new map or update to existing map from the MSGP Program Lead.

[b] Provide a draft or map markup with information as required in the Permit.

3.2 Preparing the SWPPP

SWPPP Preparer

[1] Use a copy of the most current SWPPP template.

[2] Add information to the relevant sections.

[3] Text highlighted in yellow indicate areas to be replaced with facility specific information.

[a] IF text is part of an instruction (e.g., Insert site description text here.)
THEN delete the entire line and replace with the appropriate information.

[b] IF text is embedded as part of the line,
THEN replace just the yellow highlighted text with appropriate information (e.g., delete *Sector XX-(Insert Sector Title)* and replace with *Sector P – Land Transportation & Warehousing)*.

[4] Delete attachments that are not applicable to the active facility specific SWPPP.

[5] Attach other documentation (e.g., Spill Prevention, Control and Countermeasure Plan, Environmental Management System, copies of relevant portions of documents) as necessary.

[6] Send the draft SWPPP to the EPC-CP MSGP Program Lead and request a review.

NOTE 1: The EPC-CP MSGP Program Lead may delegate the review to personnel in the Storm Water Permitting/Compliance Team.

MSGP Program Lead or Designee

[7] Review the SWPPP to ensure information required by the Permit is included.

[a] Encourage the use of the *MSGP SWPPP Review Guidance Checklist* as a best management practice to cross-check SWPPP content with the Permit. See checklist example in Attachment 2.

[b] Provide comments to the SWPPP Preparer.

SWPPP Preparer

[8] The Preparer must resolve review comments with the MSGP Program Lead.

[9] Obtain the signature of a duly authorized representative (refer to Appendix B, Subsection 11 of the Permit) on the certification statements associated with the SWPPP and attachments (refer to Attachment 9 of the *MSGP SWPPP Template* Example).

NOTE 2: The Review & Approval System for Scientific and Technical Information (RASSTI) system requires upload of only PDF documents. It is highly recommended that all final certifications obtained contain a written signature rather than electronic signature. The RASSTI system adds a cover page to the document containing the LA-UR number, which obviates all electronic signatures due to the document change.

4.0 MAINTAINING THE MSGP SWPPP

4.1 Availability of the MSGP SWPPP

A complete copy of the current SWPPP is required to be kept at the active facility in an accessible format. The SWPPP must be immediately available to facility employees, EPA, and other entities identified in the Permit. The SWPPP must also be made available to the public. LANL meets this requirement by posting SWPPPs to the Public Reading Room internet web page. Refer to Part 5.4 of the Permit for more information.

SWPPP Preparer

[1] Submit the final certified SWPPP in PDF format to the RASSTI system at *rassti.lanl.gov*.

[a] The SWPPP must be identified as Los Alamos Unlimited Release, or LA-UR, to be posted to the Public Reading Room.

[b] Identify a derivative classifier to review the document.

[c] Identify the document for a **full classification review**. The Designated Unclassified Subject Area, or DUSA, system may **NOT** be used.

[d] Identify a line manager for an approval signature.

[e] Identify the document for release to Public Reading Room.

[2] Add the cover page containing the LA-UR number generated by the RASSTI system to the SWPPP.

[3] Contact the RASSTI staff for questions and assistance using this system.

4.2 Additional Documentation Requirements

The Permit requires additional documentation to be kept with the SWPPP that together keep records complete and up-to-date, and demonstrate full compliance with the conditions of the Permit. Some documents may be generated when a SWPPP is first written (e.g., copy of the permit). Other documents may be generated on an ongoing basis throughout a calendar year (e.g., inspections). Refer to Part 5.5 of the Permit for additional information.

SWPPP Preparer or Owner

[1] IF any of the following documents are generated,

THEN add the document to the facility SWPPP as soon as the document is generated and finalized (i.e., all signatures have been obtained).

- A copy of the Notice of Intent to Discharge (NOI) submitted to EPA and correspondence exchanged between Triad, LLC and EPA specific to coverage under the permit;

NOTE: There may be several modifications to the NOI during a permit term. Ensure you coordinate with the MSGP Program Lead to confirm all modifications are included in the SWPPP.

- A copy of the acknowledgement received from the EPA assigning the NPDES permit identification number
- A copy of the permit;
- Documentation of maintenance and repairs of control measures (refer to Part 2.1.2.3 of the Permit);
- All inspections, including Routine Facility Inspections and Quarterly Visual Assessments (refer to Parts 3.1.2 and 3.2.2 of the Permit);
- Description of any deviations from the schedule for visual assessments and/or monitoring, and the reason for the deviations (refer to Parts 3.2.3 and 6.1.5 of the Permit);
- Corrective action documentation (refer to Part 4.4 of the Permit);
- Documentation of any benchmark exceedances and the type of response to the exceedance employed;
- Documentation to support any determination that pollutants of concern are not expected to be present above natural background levels if stormwater is discharged directly to impaired waters; and
- Documentation to support any claim that the facility has changed its status from active to inactive and unstaffed.

5.0 REVISING THE MSGP SWPPP

The Permit specifies conditions that trigger a SWPPP review to ensure numeric and non-numeric effluent limits are met and to determine if modifications to stormwater controls are necessary (refer to Parts 4.1 and 4.2 of the Permit).

The SWPPP must also be modified based on corrective actions and deadlines required under Part 4.3 of the Permit, and documented in accordance with Part 4.4 of the Permit.

At a minimum, the SWPPP must be reviewed and revised once per calendar year, and no later than 45 days after conducting the final routine facility inspection for the year.

SWPPP Preparer or Owner

[1] The Stormwater PPT will review the SWPPP for the following at a minimum.

- The selection, design, installation, and implementation of control measures.
- Sources of pollution.

- Spill and leak procedures.
- Non-stormwater discharges (as applicable).

[2] IF any of the following conditions occur or are detected during an inspection, monitoring or other means,

THEN the Stormwater PPT must **immediately** review the SWPPP as specified above.

- Unauthorized release or discharge (e.g., spill, leak, discharge of non-stormwater not authorized by the permit);
- A discharge violates a numeric effluent limit (refer to Table 2-1 of the Permit);
- Controls measures are not stringent enough for discharge to meet applicable water quality standards or the non-numeric effluent limits in the permit;
- A required control measure was never installed, installed incorrectly, or not in accordance with Parts 2 and/or 8, or is not properly operated or maintained;
- Whenever a visual assessment shows evidence of stormwater pollution (e.g., foam, oil sheen, etc.).
- Construction or a change in design, operation, or maintenance at the facility that significantly changes the nature of pollutants discharged in stormwater from the facility , or significantly increases the quantity of pollutants discharged;

  NOTE 1: Changes include building removal or replacement, BMP removal or installation, outfall removal or creating a new outfall, changing drainage pathways or the path of stormwater flow.

- The average of four quarterly sampling results exceeds an applicable benchmark.

  NOTE 2: If less than four benchmark samples have been taken, but the results are such that an exceedance of the four quarter average is mathematically certain this is considered a benchmark exceedance.

[3] The Stormwater PPT must determine the modification(s) to be made to implement or maintain control measures and/or take corrective action.

[4] The revision/modification(s) will be implemented at the facility.

[5] The SWPPP will be revised/modified within 14 days of completion of a modification or corrective action to reflect the modification(s) made.

[6] Obtain a signature and date from a duly authorized representative on all SWPPP revisions/modifications in accordance with Appendix B, Subsection 11 of the Permit.

6.0 TRAINING

The following personnel require training before implementing this procedure.

- Deployed Environment, Safety, and Health Group and Team Leaders
- EPC-CP MSGP stormwater compliance personnel
- DEPs
- Other LANL or subcontract personnel identified as being required to prepare and maintain MSGP SWPPPs as part of their job duties

All EPC-CP personnel that execute the activities specified in this procedure must meet the minimum qualification and training requirements for their position as identified EPC-CP-PIP-2101, NPDES Multi-Sector General Permit Program. This will include "self-study" (required reading) for this procedure as assigned and documented in accordance with ADSH-TPP-301, *ADESH Training Program Plan*. Other participating LANL groups may require training documentation pursuant to local procedures.

Contract personnel that execute the activities specified in this procedure will be qualified and trained as required by the Exhibit D and Exhibit F. In addition, contract personnel will be required to complete "self-study" (required reading) of this procedure.

7.0 RECORDS

MSGP SWPPPs are signed and certified by a duly authorized representative of the individual facilities. These completed documents are maintained at the permitted facility, managed by the facility's Records Management designated point-of-contact or document manager, and posted to the LANL public reading room. The MSGP team may retain a copy for reference purposes.

Below, are records generated as a result of implementing this procedure. Records generated are identified by title and type.

Record Title	QA Record	Non-QA Record
Stormwater Pollution Prevention Plan	☒	☐
MSGP SWPPP Review Guidance Checklist	N/A	N/A

8.0 DEFINITIONS AND ACRONYMS

8.1 Definitions

See LANL *Definition of Terms*.

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.

8.2 Acronyms

See LANL Acronym Master List.

EPA	Environmental Protection Agency
EPC-CP	Environmental Protection and Compliance-Compliance Programs
DEP	Deployed Environmental Professional
DUSA	Designated Unclassified Subject Area
LANL or the Laboratory	Los Alamos National Laboratory
LA UR	Los Alamos Unlimited Release
MSGP or Permit	Multi-Sector General Permit
NPDES	National Pollutant Discharge Elimination System
NOI	Notice of Intent to Discharge
SWPPP	Stormwater Pollution Prevention Plan
PDF	Portable Document Format
PPT	Pollution Prevention Team

9.0 REFERENCES

Unites States Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit for Stormwater Discharges Associated With Industrial Activity (MSGP)

Federal Register, Final National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Industrial Activities. Federal Register: June 16, 2015, Volume 80, Number 115

Clean Water Act, Title 33 U.S.C. 1251

10.0 ATTACHMENTS

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template* Example
Attachment 2: *MSGP SWPPP Review Guidance Checklist* Example

Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example

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MSGP Stormwater Pollution Prevention Plan

Insert Facility Name

Triad National Security, LLC

Los Alamos National Laboratory

XX/XX/XXXX

Revision X

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Insert Name of Facility
STORMWATER POLLUTION PREVENTION PLAN

PREFACE

This Stormwater 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 *United States Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP)* (U.S. EPA, June 2015) issued by EPA. The SWPPP uses the industry specific permit requirements for *Sector XX-(Insert Sector Title)* as a guide. The applicable stormwater discharge permit is EPA General Permit Identification Tracking Number NMR050013 [Triad National Security, LLC (Triad)]. Click here to view contents of the 2015 Multi-Sector General Permit.

This SWPPP applies to discharges of stormwater from the operational areas of (List the operational areas) 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 Triad. Throughout this document, the term "facility" refers to (Insert facility name). The current MSGP expires at midnight on June 4, 2020.

1.0 FACILITY DESCRIPTION

1.1 Facility Information

Name of Facility: (Insert facility name e.g., TA-3-22 Power and Steam Plant)		
Street: P.O. Box 1663		
City: Los Alamos	State: NM	ZIP Code: 87545
County: Los Alamos		
NPDES ID (i.e., permit tracking number): NMR050013		
Primary Industrial Activity SIC code, and Sector and Subsector (2015 MSGP, Appendix D and Part 8): SIC XXXX, Sector X, Subsector XX		
Estimated area of industrial activity at site exposed to stormwater: XX acres		
Discharge Information		
Name(s) of surface water(s)/segment that receives stormwater from your facility: Sandia Canyon (Sigma Canyon to NPDES outfall 001). Note: For Roads and Grounds also add "and Mortandad Canyon (within LANL)". Note: For Asphalt Batch Plant alone, delete Sandia Canyon information and insert only "Mortandad Canyon (within LANL)."		
Does this facility discharge industrial stormwater directly into any segment of an "impaired water" (see definition in 2015 MSGP, Appendix A)? ☒Yes No		
Pollutants causing the impairment: (Insert pollutants: list can be found in the Triad Notice of Intent (NOI)		

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Pollutants causing the impairment (see above) that may be present in industrial stormwater discharges from this Facility:
Are any of your stormwater discharges subject to effluent limitation guidelines (ELGs) (2015 MSGP Table 1-1)? ☐Yes ☒No If Yes, which guidelines apply? (Note: Asphalt Batch Plant is subject to ELGs) Not applicable.

1.2 Stormwater Pollution Prevention Team (PPT)

Insert a description of the team

The specific duties of individual team members of the PPT are listed in the table below.

Staff Names	Individual Responsibilities
Group Leader: Name Title, Organization	Responsible for the management of all environmental, safety, health, and quality programs for the yards, buildings and facilities 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 problems noted during inspections are corrected. The Group Leader must also ensure adequate resources are obtained to ensure compliance requirements of the MSGP and this SWPPP are met.
Deployed Environmental Professional (DEP): Name Title, Organization	Responsible for the management of all environmental programs and issues for the yards, buildings and facilities listed within this Plan. The DEP is responsible for training, recordkeeping, and SWPPP revision. The DEP ensures documentation of inspections 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 and operations personnel regarding implementation of the MSGP and this SWPPP. Lastly, the DEP conducts routine facility inspections and if necessary, visual assessments, in accordance with the Permit. Identified conditions requiring corrective actions from routine facility inspections are entered into the Environmental Protection and Compliance-Compliance Programs (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.
Facility Operations Division (FOD) Manager: Name Title, Organization	Responsible for managing the maintenance and operation of all aspects of the yards, buildings and facilities listed within this Plan. The manager shall provide review and ensure coordination with core personnel and the PPT, as appropriate, when tenants within

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	the FOD propose new processes, operations, features, or a new site that may be subject to the MSGP.
EPC Core: Name Title, Organization	The MSGP Program Lead is responsible for managing and administering the MSGP Program for all industrial facilities operated by Triad within Los Alamos National Laboratory. The MSGP Program Lead advises and provides guidance to facility or operations personnel on NPDES MSGP regulations/requirements. The Program Lead also acts as the institutional point of contact for all interactions with the regulatory authority (EPA) and supervises personnel implementing stormwater monitoring requirements for the facility.
Operations Manager(s): Name Title, Organization	Responsible for day-to-day operations at the facility. Assists the DEP and EPC with inspections; spill reporting; implementing, installing and maintaining storm water controls (also known as Best Management Practices) (BMPs); and providing documentation as requested by other team members. The Operations Manager is key to ensuring adequate communication and coordination of issues regarding implementation of the MSGP and this Plan. Operations Managers also assist the DEP/EPC with SWPPP training and/or briefings, as requested.

1.3 Site Description

Insert text with site description. Include information on type of operation(s), industrial operating equipment (associated with the Asphalt Batch Plant and the TA-3-22 Power and Steam Plant), main structures, activities, outfalls, and substantially identical outfalls.

1.4 General Location Map

The general location map for the facility can be found in Figure A. Figure B-X (if you have more than one site map, list them all here) contains all site maps and identifies all receiving waters associated with stormwater discharges from the facility. X percent of the site flows to (Insert canyon name). The canyon at this location is a (Insert stream type e.g., perennial, ephemeral, intermittent) and eventually flows to the Rio Grande approximately X miles southeast of the site.

1.5 Site Map

The site map is provided as Figure B-X (if you have more than one site map, list them all here) and illustrates the facility's activities: including facility boundary, structures, impervious surfaces, industrial activity areas, spills, operational areas, drainage patterns, stormwater controls, monitoring locations, outfalls and nearby receiving streams.

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

- **Site boundaries and acreage.** The site covers approximately X acres.
- **Significant structures and impervious surfaces.** The site is X percent impervious, primarily structures and paved lots.

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- **Direction of stormwater flow and site drainage.** Direction of flow is indicated with arrows.
- **Locations of stormwater control measures.**
- **Locations of all receiving waters.** In the immediate vicinity of the facility, (Indicate if any of the waters are Impaired and, if so, whether the waters have TMDLs established for them. See paragraph below this list). Also, indicate if the receiving water includes a wetland. A map of nearby receiving waters is provided as Figure B-X.
- **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 005, 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 (Insert "no areas" or a number of areas) in the direct vicinity of the facility. However, a map for threatened and endangered species within LANL property is included as Figure B-X.
- Locations of the following activities where such activities are exposed to precipitation:
  - Insert all facility activities exposed to stormwater (e.g., fueling locations; loading/unloading areas; locations used for the treatment, storage, or disposal of wastes; liquid storage tanks; processing and storage areas; machinery; location and sources of run-on to the site; transfer areas for substances in bulk; immediate access roads used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; and vehicle and equipment maintenance and/or cleaning areas. Only include the activity areas specific to the facility (for example, if you do not refuel within the active facility boundary, do not include "fueling locations" in this bulleted list). Use a secondary bullet list level in this section.

2.0 POTENTIAL POLLUTANT SOURCES

Industrial activities that could potentially result in releases to the environment are summarized in 2.1 below. The site map for the facility is provided in Figure B-1.

Insert text describing structures and industrial activities that could potentially result in a release to the environment. Include information on location (e.g. inside, outside), associated containment, protection (e.g., roofed areas or coverings), and other devices or practices to prevent or contain spills, prevent run-on and run-off.

2.1 Potential Pollutants Associated with Industrial Activity

List specific areas and activities that could potentially result is a release to the environment and the constituents that may be released. Include a list of any Solid Waste Management Units and Areas of Concern (also known as Consent Order Sites or Potential Release Sites) with a description of each and associated potential pollutants/contaminants.

2.2 Spills and Leaks

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Insert information on spill and leak history at the facility, if any. Text may be in table format as shown below.

Date	Description	Outfall(s) Affected

Insert information on areas where spills and leaks could occur at the facility. Text may be in table format as shown below.

Specific Equipment/Industrial Activity Areas and Location	Outfall(s) Affected

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 upon completion and documentation of the spill clean-up, and will be summarized in this section of the SWPPP. In addition, spills within MSGP facility boundaries will be entered as conditions requiring corrective action in the MSGP CAR database and will be updated as corrective action occurs, in accordance with EPC-CP-QP-022, *MSGP Corrective Actions*.

The probability of spills or releases at the facility is minimized by (Insert information on how the facility will minimize spills and leaks).

2.3 Unauthorized Non-Stormwater Discharges

Insert information describing any NPDES permitted non-stormwater discharges, unpermitted outfalls, or unauthorized discharges associated with the facility. Describe any potential sources of non-stormwater discharges (e.g., testing of fire hydrants) and where wastewater drains to. Include a reference to the "Non-Stormwater Discharge Assessment and Certification" and indicate that it is provided in Attachment 3.

2.4 Salt Storage

Insert text describing salt storage areas at the facility, if present. If none exists, state salt is not stored at the facility.

2.5 Historical Data Summary

The following tables provide monitoring data at the facility for the past X years.

Permitted Facility: (insert facility name)

Calendar Year XXXX

Contact MSGP Program Lead to obtain this information formatted for insertion.

Note: This information will be updated every year during the annual SWPPP update, to include the 3 most current years of monitoring data.

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3.0 STORMWATER CONTROL MEASURES

Control measures at the facility are designed to minimize the potential release of pollutants that could adversely affect water quality. Insert text with stormwater control measure information.

3.1 Non-Numeric Technology-Based Effluent Limits

Insert text with non-numeric technology-based effluent limits information. Note: This is specific to Sectors A, AA, N, O and P.

3.1.1 Minimize Exposure

Insert text describing all structural controls (structures or covers) or practices used to minimize the exposure of industrial activities to precipitation. The SWPPP must describe where the controls or practices are being implemented at the facility. Examples of exposure-minimizing control measures include: location and extent of grading, berms, curbs used to contain contaminated stormwater or divert it around areas of industrial activity, materials stored within secondary containment, location of spill cleanup kits, schedule for employee spill abatement and cleanup training, procedure or practices for storage of leaky vehicles and equipment.

3.1.2 Good Housekeeping

Good housekeeping practices specifically applicable to the prevention of stormwater contamination include the following measures: Insert text describing any practices implemented to keep exposed areas at the facility clean. Describe where each practice is being implemented at the facility. Examples of good housekeeping control measures include how workspaces are maintained; routine inspections of heavy equipment, other equipment and waste containers; inspections of material storage areas; identifying specific personnel/positions responsible for empting drip pans, etc. Refer to Section 4.1 of this document for specific schedules for waste and recyclable material pickup and sweeping.

All site areas exposed to precipitation are walked down during daily operations and monthly routine facility inspections to ensure that the grounds are kept in an orderly condition. The outdoor metal storage areas are inspected to ensure all piping and metal raw material is off the ground on storage racks and covered, or stored inside buildings, sheds or transportable containers. Vehicle and forklift parking areas are inspected for leaks or spills as well as storage areas containing oil-filled equipment. The entire site, including loading areas and outfalls, are inspected for floatable debris, garbage, waste and all other potential pollutants. All dumpsters and roll-off bins are inspected to ensure they are closed.

3.1.3 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 and Deadlines* requirements of Section 6.0 of this SWPPP.

Deficient items identified during routine facility inspections, walk-downs, or by any other means of identification, will be documented on the routine facility inspection forms and entered into the MSGP CAR database. The condition requiring corrective action will remain open until proper maintenance or

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corrective action has been completed. CAR information, along with documentation of maintenance/repair of control measures, is in Attachment 9 of the SWPPP.

Insert text identifying how industrial equipment is maintained to avoid leaks or other releases. Also, include information on how site-specific control measures are maintained to ensure effective operating condition.

3.1.4 Spill Prevention and Response

Spills, leaks, or other releases will be prevented and minimized by (insert information on how the facility prevents and minimizes unauthorized releases).

Insert text describing the general facility approach to spill cleanup.

All spills or releases are reported to EPC-CP by using the spills pager (505) 664-7722. Although incidental spills may be cleaned up by facility personnel, all emergency spills or releases are reported to Emergency Management Division-Emergency Response (EMD-ER) and/or the Facility Duty Officer by calling 667-2400. If fire or explosion is present, or if the potential for such exists, the situation must be reported by dialing 911 from a non-cellular phone or by activating a fire pull box. In the event of a spill, EMD-ER will coordinate appropriate cleanup procedures and EPC-CP will notify the individuals or organizations responsible for completing spill reports and providing information needed to fulfill regulatory reporting requirements.

Unauthorized releases or discharges within industrial facility boundaries are entered into the MSGP Corrective Action Reporting database in accordance with EPC-CP-QP-022, *MSGP Corrective Actions*. In addition, the completion of an Unplanned Release Report is required in the event of a spill. The 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 and/or written notification to the National Response Center, Environmental Protection Agency Region VI, or the New Mexico Environment Department (NMED). EMD-ER, the FOD and EPC-CP, in accordance with Laboratory and DOE policies and federal and state regulatory reporting requirements, will make the determination for the type of reporting required. EPC-DO-QP-101, *Environmental Reporting Requirements for Releases or Events* is used for this purpose (see Attachment 21).

Copies of internal spill reports are maintained by the responsible organization and in the EPC-CP database. The EPC-CP procedure for spill reporting and response, ENV-CP-QP-007, *Spill Investigations*, can be found in Attachment 22 of this SWPPP.

3.1.5 Erosion and Sediment Control

Insert text describing how erosion at the facility and sediment transport off the facility is prevented/minimized. Erosion control measures that prevent soil or sediment from becoming mobilized should be used as the primary line of defense. Sediment control measures that trap, infiltrate, or settle out mobilized sediments, should be used to back-up the erosion control measures.

3.1.6 Management of Runoff

Insert text describing how the facility manages stormwater runoff. This will include a description of controls used to divert, infiltrate, reuse, contain, or otherwise reduce stormwater runoff. Installed or utilized control measures may be listed with a description of their function at the facility.

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3.1.7 Salt Storage Piles or Piles Containing Salt

Insert text describing how the facility manages salt storage piles or piles containing salt. Offloading operations should occur within contained areas with appropriate measures in place to prevent off-site migration or track out of salt from the contained area. Installed or utilized control measures may be listed with a description of their function at the facility. If none exists, state salt is not stored at the facility.

3.1.8 Dust Generation and Vehicle Tracking of Industrial Materials

Insert text describing how the facility manages dust generation and vehicle tracking.

3.2 Numeric Effluent Limitations Based on Effluent Limitations Guidelines

Insert information identifying the facility as meeting or not meeting the industrial category requirements for effluent monitoring as listed in Part 2.1.3 (*Table 2-1 Applicable Effluent Limitation Guidelines*) of the 2015 MSGP and if benchmark monitoring is or is not required.

If the permit does identify sector-specific requirements for the facility, insert a description of specific controls implemented at the facility to ensure numeric effluent limits are met.

3.3 Water Quality-Based Effluent Limitations and Water Quality Standards

Impaired waters monitoring is performed annually at the facility as listed in Section 4.7 of this SWPPP. The pollutants monitored can change yearly based on the requirements of the MSGP. The table in Section 4.7 lists the current year monitoring requirements and standards.

Stormwater from (insert facility name) discharges to (insert canyon name). Insert information on canyon reaches identified as impaired waters, pollutants causing the impairment, and approved or established TMDLs for the canyon. Also, insert specific information relative to the controls measures used to ensure discharges from industrial activities meet the water quality standards.

Refer to Section 4.7 for specific actions that will be taken when a water quality standard is exceeded.

4.0 SCHEDULES AND PROCEDURES

Preventative maintenance of control measures used to comply with the Permit effluent limits can avoid situations that result in discharges to the environment. Part 5.2.5 of the 2015 MSGP specifies control measures will have a schedule or frequency for maintenance and procedures specifying how maintenance is conducted. Part 5.5 requires documentation of maintenance and repairs including the date(s) of regular maintenance. See Attachment 10 for the Scheduled Maintenance Log.

4.1 Good Housekeeping

Insert a schedule for housekeeping activities such as waste and recyclable material (scrap metal, wood tires) pickup, street sweeping, etc. and identify any procedures used to ensure this occurs.

4.2 Maintenance

Insert a discussion of and schedule for preventative or regular maintenance of equipment such as oil/water separators, culvert clean outs, other control measures, etc. Note: Industrial equipment will be

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maintained so that leaks and other releases are avoided. All control measures will be maintained in effective operation condition.

4.3 Spill Prevention and Response

Insert a discussion of and schedule for preventing and responding to spills and leaks such as regular maintenance of equipment, placing pans under heavy equipment, and maintaining spill kits. Also, specify cleanup equipment, procedures and spill logs, and identify how often employees are trained in spill response procedures, as appropriate.

4.4 Erosion and Sediment Control

Insert a discussion of and schedule for preventative or regular maintenance of erosion, sediment and velocity control measures. If polymers and/or other chemical treatments are used as erosion or sediment control measures, identify them and include a regular schedule for reapplication. Also, include a schedule for restocking these materials to ensure the facility does not run out.

4.5 Employee Training

Employee training is essential for effective implementation of the SWPPP and MSGP requirements. The goals for the training program are to ensure that employees: (1) are aware of what happens when pollutants come in contact with stormwater; (2) are familiar with and will implement the requirements of this SWPPP; (3) are capable of preventing spills; (4) respond safely and effectively to an accident when one occurs; (5) recognize when there is an issue with a control measure; (6) recognize when additional control measure are necessary; and (7) identify situations that could lead to stormwater contamination.

Per Part 2.1.2.8 of the 2015 MSGP, training relevant to the SWPPP and MSGP is required for all workers at the facility that work in areas where industrial materials or activities are exposed to stormwater (MSGP sites); workers, 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 is designed to ensure these personnel understand the MSGP and SWPPP requirements, as well as their specific responsibilities regarding these requirements.

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 will be conducted at least annually. The DEP, Deployed Environment Safety and Health (DESH) Group Leader and Pollution Prevention Team members are responsible for ensuring all appropriate personnel receive this training. It is suggested to add a list of job titles per facility that require training (e.g., Mechanics, Heavy Equipment Operators, PPT members, Operations Manager(s), etc.).

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 Attachment 11 of this SWPPP.

The topics in this SWPPP that are covered in the latest version of the facility-specific annual MSGP training (see Attachment 11) include the following:

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- Overview of the SWPPP contents;
- 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 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 Routine Facility Inspections and Quarterly Visual Assessments

Routine inspections at this facility are conducted and documented monthly in accordance with EPC-CP-QP-023, *MSGP Routine Facility Inspections* (Attachment 16).

Visual assessments are conducted in accordance with EPC-CP-QP-064, *MSGP Stormwater Visual Assessments* (Attachment 18).

4.6.1 Routine Facility Inspections

At least once each calendar year, the routine facility inspection is conducted during a period when a stormwater discharge is occurring. A qualified member of the PPT (typically the DEP, a representative from the EPC-CP Storm Water Permitting/Compliance Team or EPC-CP Program Lead) performs the inspection. 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/Substantially Identical 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 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 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 maintenance, repairs or replacement.

Inspections performed by the PPT member are documented by completing the routine facility inspection form, which identifies all conditions requiring corrective action and other potential stormwater pollution issues that were encountered. All conditions requiring corrective actions identified during the inspection are addressed in accordance with Section 6.0 *Corrective Actions and Deadlines* of this plan. Facility personnel or the DEP may also perform daily, weekly, or other periodic facility surveys (walk downs)

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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between monthly routine inspections to ensure compliance with the SWPPP and MSGP. Completed routine facility inspection forms are provided in Attachment 7 of this SWPPP and meet the requirements listed in the 2015 MSGP (Part 3.1.2.).

4.6.2 Quarterly Visual Assessments

Once each quarter, (April 1-May 31, June 1-July 31, August 1-September 30, October 1-November 30) a stormwater sample is obtained and visual assessment performed at each outfall, if a measureable storm event occurred. A qualified member of the PPT (DEP, EPC-CP field team member or MSGP Program Lead) conducts the visual assessment. The visual assessment will 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 practicable thereafter. Alternatively, document why it was not possible to collect the sample within the first 30 minutes (i.e. adverse conditions, not enough flow, etc.); and
- Conducted at least 72 hours since the last storm event; or document that the 72-hour period is representative of local storm events during the sampling period.

Note: Snowmelt samples need only be collected during a period of measurable discharge.

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 snowmelt discharge (taken during a measurable discharge from the site).

For facilities with substantially 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 substantially identical outfall.

The PPT member performing the visual assessment documents potential stormwater pollution problems that were observed during the assessment on the quarterly visual assessment form. Any required corrective actions identified during the assessment are addressed in accordance with Section 6.0 *Corrective Actions and Deadlines* of this plan. Completed quarterly visual assessments are provided in Attachment 8 of this SWPPP and meet the requirements listed in the 2015 MSGP (Part 3.2.2).

4.7 Monitoring

Analytical monitoring comprised of Impaired Waters [insert Effluent Limitation Guideline monitoring for industrial activity identified in Tables 1-1 and 6-1 of the 2015 MSGP (for example the Asphalt Batch Plant)] monitoring is performed annually on stormwater discharges from the site. Benchmark constituents are monitored quarterly. Monitoring occurs when storm events result in an actual discharge from the site and follow the preceding measurable storm event by at least 72 hours (3 days), unless documented that the storm event is representative of local storm events during the sampling

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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period. For runoff from snowmelt, the monitoring is performed at a time when a measurable discharge from the site occurs.

Monitoring is conducted according to test procedures approved under 40 CFR Part 136. Runoff samples are 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 is collected as soon as practicable after the first 30 minutes and documentation is kept with the SWPPP explaining why it was not possible.

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 a sample according to the relevant monitoring schedule, a sample will be collected during the next qualifying storm event or as soon as practicable.

Monitoring occurs at automated sampling station **[insert automated sampler identifier (e.g., MSGP07501)]** as identified in Section 1.5. Discharge from the facility is (insert cardinal direction) to (insert canyon name) (impaired waters), which is a tributary of the Rio Grande located approximately X miles east of the facility.

Outfall (insert substantially identical outfall identification number) is "substantially identical" to Outfall (insert monitored outfall identification number) based on (insert the following information: industrial activities conducted in the drainage area, description of control measures implemented in the drainage area of each outfall, description of exposed material located in the drainage area of each outfall that are likely to be significant contributors of pollutants to stormwater discharges, and an estimate of the runoff coefficient of the drainage areas). Outfall locations are shown on the site map provided in Figure B-1. Note: Delete this paragraph if the facility has no substantially identical outfalls. If the facility has multiple maps, reference them all.

Monitoring will continue annually for constituents associated with impaired waters until a constituent is no longer detected in stormwater samples.

If the impaired water or benchmark constituent value exceeds the New Mexico Water Quality criterion (insert or ELG value is exceeded, if applicable), the Pollution Prevention Team 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 benchmark or annual monitoring of the constituent (as required by Part 6.2 of the 2015 MSGP);
- If an ELG is exceeded, follow-up monitoring within 30 calendar days (or during the next qualifying runoff event) of implementing corrective action(s) is required. When follow-up monitoring exceeds the applicable effluent limitation, an exceedance report is submitted to EPA and monitoring continues at least quarterly, until the discharge complies with the effluent limit.

For each monitoring event, except snowmelt monitoring, the following information will be recorded and maintained through work orders, 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

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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- 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.

All records of monitoring information, including all calibration and maintenance records are maintained for a minimum period of at least three years from the date the permit expires.

Insert information on quarterly benchmark and annual Impaired Waters or Effluent Limitation Guideline monitoring required for facility and benchmark pollutants to be sampled.

LANL's applicable stormwater monitoring procedures can be found in the following Attachments:

- EPC-CP-QP-047, *Inspecting Stormwater Runoff Samplers and Retrieving Samples for the MSGP* (Attachment 19)
- EPC-CP-QP-2106, *Processing MSGP Stormwater Samples* (Attachment 20).

The table on the following page lists the current Summary of Monitoring Requirements. The monitoring values have been modified to reflect New Mexico water quality standards and are based on the most protective water quality standards from the Standards for Interstate and Intrastate Surface Waters (effective on February 28, 2018), 20.6.4.900 NMAC; and as set forth in Part 9.6.2.1 of the 2015 MSGP.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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Summary of Monitoring Requirements

Outfalls: (insert outfall numbers)

Contact MSGP Program Lead to obtain this information formatted for insertion.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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5.0 DOCUMENTATION FOR ELIGIBILITY CONSIDERATIONS UNDER OTHER FEDERAL LAWS

5.1 Endangered Species

The Final Site-Wide Environmental Impact Statement (EIS) 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 MSGP sites in accordance with Section 4.7 *Monitoring* of this plan. Corrective actions are taken as necessary as described in Section 6.0 *Corrective Actions and Deadlines* of this plan.

Part 5.2.2 of the 2015 MSGP requires areas of designated critical habitat for endangered or threatened species, as applicable, be included in the SWPPP. The *Threatened and Endangered Species Habitat Management Plan for Los Alamos National Laboratory* (LA-UR-17-29454) was last updated in October 2017 (see Attachment 13). This document provides a management strategy for the protection of threatened and endangered species and their habitats on LANL property. The MSGP IPaC Trust Resource Report (see Attachment 14) is also attached for informational purposes.

5.2 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 RANT

6.0 CORRECTIVE ACTIONS AND DEADLINES

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) is reviewed and

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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revised (as appropriate). The purpose is to ensure 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-stormwater 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.

When any of the following conditions occur, a review of the selection, design, installation, and implementation of control measures is 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
- The average of 4 quarterly sampling results exceeds an applicable benchmark. If less than 4 benchmark samples have been taken, but the results are such that an exceedance of the 4 quarter average is mathematically certain (i.e., if the sum of quarterly sample results to date is more than 4 times the benchmark level) this is considered a benchmark exceedance, triggering this review (see Section 4.7); or
- If an impaired water constituent exceeds the NM Water Quality criterion (see Section 4.7).

When the review identifies the need to modify the SWPPP, it will be revised within 14 calendar days of completion of the associated condition requiring corrective action.

6.1 Immediate Actions

When a condition requiring corrective action is identified, all reasonable steps necessary to minimize or prevent the discharge of pollutants are immediately taken (i.e. spill clean-up, scheduling repairs) until a permanent solution (if needed) can be implemented. Immediate action means all reasonable steps are taken the same workday or no later than the following workday (when it is too late in the day to take corrective action).

6.2 Subsequent Actions

When additional corrective actions are required (e.g. installing or making operational a new or modified control, completing repairs, ordering BMPs) they will be completed by the next storm event, if possible, or within 14 calendar days (from initial discovery). When it is determined that it is infeasible to complete corrective actions within 14 days, documentation of infeasibility and a schedule for completion of the work is documented in the CAR database, which will be completed no later than 45 days (from initial discovery). When it is determined that corrective actions will exceed 45 days, EPA is notified and provided justification of why actions will exceed the timeframe; and a minimal amount of additional time to complete the work may be approved.

6.3 Corrective Action Documentation

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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Upon discovery, conditions requiring corrective action are documented by the DEP or EPC-CP on a Routine Facility Inspection Form and/or entered into the CAR database. The action will be kept open in the database until the issue has been resolved. Documentation of maintenance and repairs of stormwater control measures (BMPs) will be kept in Attachment 10 of this SWPPP. Where corrective actions result in changes to procedures or controls documented in this SWPPP, modifications to the SWPPP are made accordingly within 14 calendar days of completing the corrective action(s). LANL procedure EPC-CP-QP-022, *MSGP Corrective Actions* can be found in Attachment 17.

7.0 ACRONYMS

BMP	Best Management Practice
CAR	Corrective Action Report
DEP	Deployed Environmental Professional
DESH	Deployed Environmental Safety and Health
DOE	Department of Energy
EIS	Environmental Impact Statement
ELG	Effluent Limitation Guidelines
EMD-ER	Emergency Management Division-Emergency Response
EPA	Environmental Protection Agency
EPC-CP	Environmental Protection and Compliance – Compliance Programs
FOD	Facility Operations Division
IPaC	Information for Planning and Consultation
LANL or the Laboratory	Los Alamos National Laboratory
MSGP or Permit	Multi-Sector General Permit
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
PPT	Pollution Prevention Team
SWPPP	Stormwater Pollution Prevention Plan
URL	Uniform Resource Locator

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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8.0 SWPPP CERTIFICATION

STORMWATER POLLUTION PREVENTION PLAN
(Insert Facility Name)
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_____ Date_____
(Insert Printed Name)
(Insert Title)

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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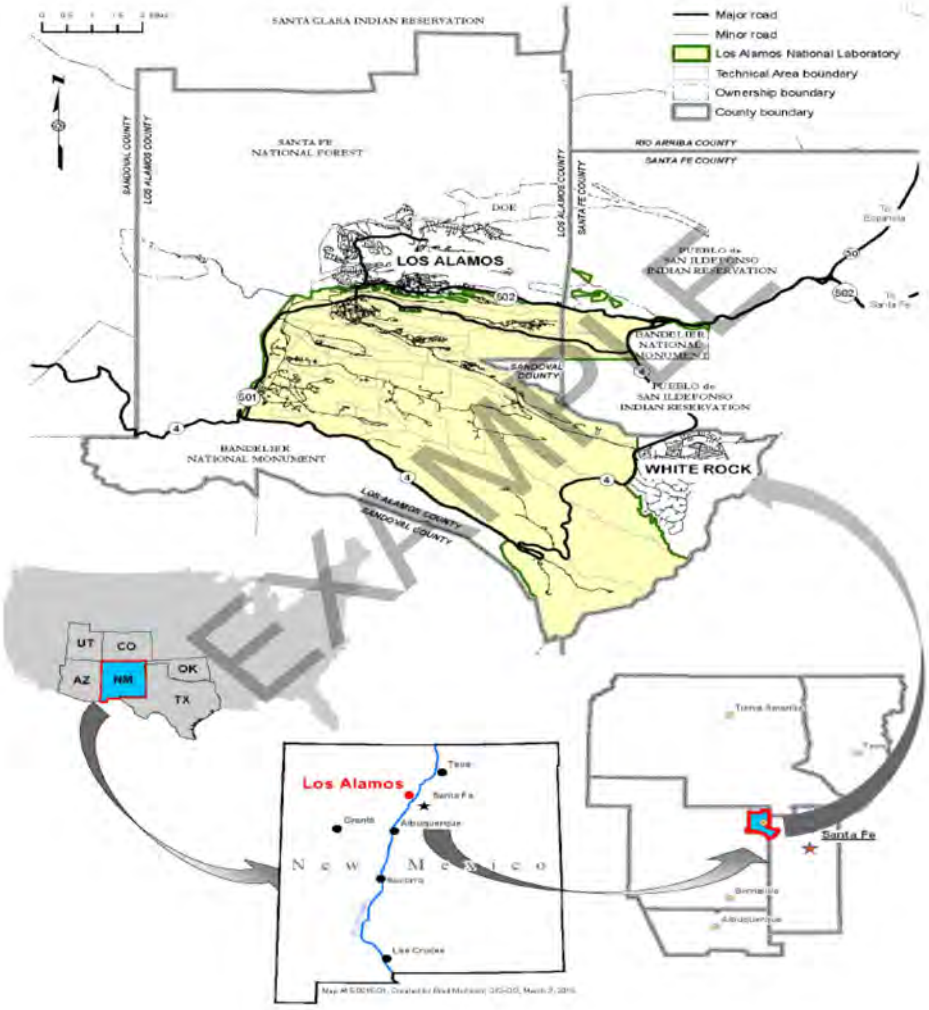
Insert Facility Name
MSGP Stormwater Pollution Prevention Plan
Document Reference Number
Revision X, Date

FIGURE A: GENERAL LOCATION MAP



Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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FIGURE B: MAP(S)

Label the figures as Figure B-1, Figure B-2, etc.

Insert maps in the following order:

- Facility specific site map(s),
- Receiving waters maps, and
- Threatened Endangered Species Map.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 1: NOTICE OF INTENT, SUPPORTING DOCUMENTATION, AND UPDATES

Insert the appropriate attachment. Note: There may be several "Change NOIs" submitted to EPA within a permit term. Contact the MSGP Program Lead to ensure all are included in this attachment.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 2: SWPPP AMENDMENTS

Insert text documenting all changes or updates made to the SWPPP. Text may be in table format as shown below.

Date	Plan Section	Reason for Amendment	Amendment

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 3: CERTIFICATION OF NO UNAUTHORIZED STORMWATER DISCHARGES

Insert the appropriate attachment.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 4: DULY AUTHORIZED SIGNATORY MEMORANDUM

Insert the appropriate attachment.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 5: DISCHARGE MONITORING REPORTS

Insert the discharge monitoring reports.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 6: ANNUAL REPORTS

Insert the annual reports. The MSGP Program Lead provides these.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 7: ROUTINE FACILITY INSPECTIONS

Insert completed Routine Facility Inspection forms.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 8: QUARTERLY VISUAL ASSESSMENTS

Insert completed Quarterly Visual Assessment forms. EPC-CP provides these by memorandum as they are produced.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 9: CORRECTIVE ACTION DOCUMENTATION AND CERTIFICATION

Contact the EPC-CP MSGP Program Lead for an excel spreadsheet of all corrective actions and a certification statement for signature.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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Insert Facility Name
MSGP Stormwater Pollution Prevention Plan
Document Reference Number
Revision X, Date

ATTACHMENT 10: SCHEDULED MAINTENANCE LOG

SCHEDULED MAINTENANCE LOG

Date	Control Measure or Equipment Description (include location where appropriate)	Action Taken/Comments	Action Taken By (printed name & Z no.)

Page 1 of X

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 11: TRAINING DOCUMENTATION

Insert the appropriate documentation.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 12: MSGP (OR ACTIVE URL)

Either insert a copy of the most current Permit, or insert the URL address (see example below).

A copy of the 2015 MSGP is kept on file with the SWPPP in hard copy.

The active URL for the permit is https://www.epa.gov/npdes/final-2015-msgp-documents

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 13: THREATENED AND ENDANGERED SPECIES HABITAT MANAGEMENT PLAN FOR LOS ALAMOS NATIONAL LABORATORY

Insert the most current revision of the management plan for LANL.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 14: MSGP IPAC TRUST RESOURCES REPORT

Contact the EPC-CP MSGP Program Lead for this information formatted for insertion.

NOTE: The Permit requires this information. However, LANL EPC-ES has completed consultation with U.S. Fish and Wildlife Service. Letters of Consultation are contained in the NOI (see Attachment 1). Refer to Attachment 13 for the species habitat management plan.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 15: EPC-CP-PIP-2101, *NPDES MULTI-SECTOR GENERAL PERMIT*

Insert the appropriate plan into this SWPPP. Ensure the most current revision of this plan is inserted.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 16: EPC-CP-QP-023, *MSGP ROUTINE FACILITY INSPECTIONS*

Insert the appropriate procedure or parts of the procedure that pertain to this SWPPP. Ensure the most current revision of this procedure is inserted.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 17: EPC-CP-QP-022, *MSGP CORRECTIVE ACTIONS*

Insert the appropriate procedure or parts of the procedure that pertain to this SWPPP. Ensure the most current revision of this procedure is inserted.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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Insert Facility Name
MSGP Stormwater Pollution Prevention Plan
Document Reference Number
Revision X, Date

ATTACHMENT 18: EPC-CP-QP-064, *MSGP STORMWATER VISUAL ASSESSMENTS*

Insert the appropriate procedure or parts of the procedure that pertain to this SWPPP. Ensure the most current revision of this procedure is inserted.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 19: **EPC-CP-QP-047, *INSPECTING STORMWATER RUNOFF SAMPLERS AND RETRIEVING SAMPLES FOR THE MSGP***

Insert the appropriate procedure or parts of the procedure that pertain to this SWPPP. Ensure the most current revision of this procedure is inserted.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 20: EPC-CP-QP-2106, *PROCESSING MSGP STORMWATER SAMPLES*

Insert the appropriate procedure or parts of the procedure that pertain to this SWPPP. Ensure the most current revision of this procedure is inserted.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 21: **EPC-DO-QP-101, *ENVIRONMENTAL REPORTING REQUIREMENTS FOR RELEASES OR EVENTS***

Insert the appropriate procedure or parts of the procedure that pertain to this SWPPP. Ensure the most current revision of this procedure is inserted.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 22: EPC-CP-QP-007, *SPILL INVESTIGATIONS*

Insert the appropriate procedure or parts of the procedure that pertain to this SWPPP. Ensure the most current revision of this procedure is inserted.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 23: **EPC-CP-QP-2110, *MSGP STORMWATER POLLUTION PREVENTION PLAN PREPARATION AND MAINTENANCE***

Insert the appropriate procedure or parts of the procedure that pertain to this SWPPP. Ensure the most current revision of this procedure is inserted.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 24: LOCAL PROCEDURE

Insert the appropriate procedure or parts of the procedure that pertain to this SWPPP. If this section is used, ensure the most current revision of the attached procedure is inserted. Delete section if not needed.

Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)

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ATTACHMENT 25: LOCAL PROCEDURE

Insert the appropriate procedure or parts of the procedure that pertain to this SWPPP. If this section is used, ensure the most current revision of the attached procedure is inserted. Delete section if not needed.

Attachment 2: MSGP SWPPP Review Guidance Checklist Example

(Page 1 of 11)

MSGP SWPPP Review Guidance Checklist

SWPPP Title _____

REQUIREMENT	YES/NO	NOTES
Stormwater Pollution Prevention Team		
Is the SWPPP being developed or updated by a qualified person?		
Does the SWPPP list Stormwater Pollution Prevention Team members (by name or title) and each individual's responsibilities?		
Is a copy of the SWPPP immediately available at the site and on-line?		
Contents of the SWPPP		
If the SWPPP refers to procedures or other documents, are copies of the relevant portions of these procedures or documents present in the SWPPP?		
Site Description		
Does the SWPPP include the following information?		
• Identify a description of the nature of the industrial activities at the site		
Provide a general location map (e.g., U.S. Geological Survey (USGS) quadrangle map) with enough detail to identify the location of the site and all receiving waters for industrial stormwater discharges.		
Site map showing the following:		
• Boundaries of the property and size of the property in acres		
• Location and extent of significant structures and impervious surfaces		
• Direction(s) of stormwater flow (using arrows)		
• Locations of **all** stormwater control measures		
• Locations of all receiving waters, including wetlands, in the immediate vicinity of the site. Indicate which water bodies are listed as impaired and which are identified as Tier 2, Tier 2.5, or Tier 3 waters (for LANL, none)		
• Locations of all stormwater conveyances including ditches, pipes, and swales		
• Locations of potential pollutant sources associated with each industrial activity (see Part 5.2.3.2) that could be exposed to rainfall or snowmelt and could be discharged from the site.		
• Locations where significant spills or leaks have occurred (see Part 5.2.3.3)		
• Location(s) of all stormwater monitoring points		
• Location of each stormwater inlet and outfall, with a unique identification code for each outfall (i.e., 001, 002, 003, etc.), indicating if you are treating one or more outfalls as "substantially identical" (see Parts 3.2.3, 5.2.5.3, and 6.1.1)		
• If applicable, location of the MS4 and where your stormwater discharges to it. *NOTE:* Although LANL does not currently have an MS4, EPA has published a draft permit.		
• Areas of designated critical habitat for endangered or threatened species		
• Locations of the following activities where such activities are exposed to precipitation:		

Attachment 2: *MSGP SWPPP Review Guidance Checklist* Example (cont.)

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MSGP SWPPP Review Guidance Checklist

REQUIREMENT	YES/NO	NOTES
- Fueling station(s)		
- Vehicle and equipment maintenance and/or cleaning area		
- Loading/unloading areas		
- Locations used for the treatment, storage, or disposal of wastes		
- Liquid storage tanks		
- Processing and storage areas		
- Immediate access roads used by carriers of raw materials, manufactured products, waste material, or by-products used or created by the site		
- Transfer areas for substances in bulk		
- Machinery		
- Locations and sources of run-on to the site from adjacent property that contains significant quantities of pollutants		
Potential Pollutant Sources		
Are areas described in the SWPPP where industrial material or activities are exposed to stormwater or from which allowable non-stormwater discharges originate? ***NOTE 1:*** *Industrial material or activities* include material handling equipment or activities; industrial machinery; raw material; industrial production and processes; and intermediate products; by-products; final products, and waste products. *Material handling activities* include the storage, loading and unloading, transportation, disposal or conveyance of any raw material, intermediate product, final product or waste product.		
Are all pollutants or pollutant constituents (e.g., zinc, sulfuric acid, cleaning solvents, motor oil, diesel, gasoline, brake fluid, etc.) associated with each activity identified? ***NOTE 2:*** The list must include all pollutants/materials that have been handled, treated, stored, or disposed and that have been exposed to stormwater in the three years prior to the date the SWPPP is prepared or amended.		
Are areas where **potential** spills and leaks could occur that could contribute pollutants to stormwater discharges and the corresponding outfall(s) that would be affected by such spills and leaks identified in the SWPPP?		
Are all significant spills and leaks of oil or toxic or hazardous substances identified that **actually occurred** at exposed areas, or that drained to a stormwater conveyance, in the three years prior to the date the SWPPP was prepared or amended?		
Has an evaluation for the presence of unauthorized non-stormwater discharges (see Part 1.1.3) been done and does it include the following information?		
• Date of the evaluation		
• A description of the evaluation criteria used		
• A list of the outfall or onsite drainages points that were directly observed during the evaluation		

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Attachment 2: *MSGP SWPPP Review Guidance Checklist* Example (cont.)

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REQUIREMENT	YES/NO	NOTES
• The action(s) taken, such as a list of control measures used to eliminate unauthorized discharge(s), or documentation that a floor drain was sealed, re-routed to sanitary, or an NPDES permit application was submitted for an unauthorized cooling water discharge.		
Is there documentation of the location of any salt storage piles used for deicing or other commercial or industrial purposes?		
Is all stormwater discharge sampling data collected at the site during the precious permit term summarized in a narrative description? This may include data tables and figures.		
Control Measures to Meet Effluent Limits		
Does the SWPPP indicate whether the following control measure selection and design criteria were considered?		
• Preventing stormwater from coming into contact with polluting materials is generally more effective, and less costly, than trying to remove pollutants from stormwater		
• Using control measures in combination which may be more effective than using control measures in isolation for minimizing pollutants in stormwater discharge		
• Assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to designing effective control measures that will achieve the limits in this permit		
• Minimizing impervious areas at the facility and infiltrating runoff onsite (including bio-retention cells, green roofs, and impervious pavement, among other approaches) can reduce runoff and improve ground water recharge and stream base flows in local streams, although care must be taken to avoid ground water contamination		
• Attenuating flow using open vegetated swales and natural depressions can reduce in-stream impacts of erosive flows		
• Conserving and/or restoring riparian buffers will help protect streams from stormwater runoff and improve water quality		
• Using treatment interceptors (e.g., swirl separators and sand filters) may be appropriate in some instances to minimize the discharge of pollutants.		
Does the SWPPP indicate how the control measure addresses the potential pollutant sources?		
Are the selection and design considerations for control measures to meet the following non-numeric technology-based effluent limits (see Part 2.1.2) identified in the SWPPP?		
• **Minimize Exposure:** All manufacturing, processing and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) must have controls that minimize exposure to pollutant discharges by either locating these industrial materials and activities inside or protecting them with storm resistant coverings.		
- Use grading, berming or curbing to prevent runoff of contaminated flows and divert run-on away from these areas;		

Attachment 2: *MSGP SWPPP Review Guidance Checklist* Example (cont.)

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MSGP SWPPP Review Guidance Checklist

REQUIREMENT	YES/NO	NOTES
- Locate materials, equipment, and activities so that potential leaks and spills are contained or able to be contained or diverted before discharge;		
- Clean up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants;		
- Store leaky vehicles and equipment indoors or, if stored outdoors, use drip pans and absorbents;		
- Use spill overflow protection equipment;		
- Perform all vehicle and/or equipment cleaning operations indoors, under cover, or in bermed areas that prevent runoff and run-on and also that capture any overspray; and		
- Drain fluids from equipment and vehicles that will be decommissioned, and, for any equipment and vehicles that will remain unused for extended periods of time, inspect at least monthly for leaks.		
• **Good housekeeping** (all areas where potential pollutants are exposed to stormwater must be kept clean).		
- Sweep or vacuum at regular intervals or wash down the area and collect and/or treat and properly dispose of the wash down water.		
- Store materials in appropriate containers.		
- Keep all dumpster lids closed when not in use. For dumpsters and roll off boxes that do not have lids and could leak, ensure that discharges have a control (e.g., secondary containment). Part 1.1.3 of the permit does not authorize dry weather discharges from dumpsters or roll off boxes.*		
* You may include extra information, or you may just "cut-and-paste" the effluent limits verbatim into the SWPPP w/out providing additional documentation.		
- Minimize the potential for waste, garbage, and floatable debris to be discharged by keeping exposed areas free of such materials.		
• **Maintenance** (All industrial equipment, systems and control measures must be maintained in effective operating condition in order to minimize pollutant discharges).		
Perform inspections and preventive maintenance of stormwater drainage, source controls, treatment systems, and plant equipment and systems that could fail and result in contamination of stormwater.		
- Diligently maintain non-structural control measures (e.g., keep spill response supplies available, and personnel appropriately trained).		
- Inspect and maintain baghouses at least quarterly to prevent the escape of dust from the system and immediately removing any accumulated dust at the base of the exterior baghouse.*		
- Cleaning catch basins when the depth of debris reached two thirds (2/3) of the sump depth and keeping the debris surface at least six inches below the lowest outlet pipe.*		
Does the SWPPP contain language indicating immediate action must be taken to minimize pollutant discharges if control measures need routine maintenance?		
Is there language in the SWPPP indicating in instances where control measures need repair or replacement that the facility (or associated representatives thereof) must immediately take all		

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Attachment 2: *MSGP SWPPP Review Guidance Checklist* Example (cont.)

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MSGP SWPPP Review Guidance Checklist

REQUIREMENT	YES/NO	NOTES
reasonable steps (see Part 4.3.1 for definition) to prevent or minimize the discharge of pollutants until the final repair or replacement is implemented, including cleaning up any contaminated surfaces so that the material will not be discharged during subsequent storm events. Final repairs/replacement of stormwater controls should be completed as soon as feasible but must be no later than the timeframes established in Part 4.3 for corrective actions, i.e., within 14 days or, if that is infeasible, within 45 days.		
Is there language in the SWPPP indicating corrective action must be taken (in accordance with Part 4.0) if a control measure was never installed, was installed incorrectly or not in accordance with Parts 2 and/or 8, or isn't being properly operated or maintained?		
• **Spill Prevention and Response** - The potential for leaks, spills, and other release must be minimized by the development of plans for effective response to such spills if or when they occur in order to minimize pollutant discharges.		
- Plainly label containers (e.g., "Used Oil," "Spent Solvents," "Fertilizers and Pesticides") that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur:*		
- Implement procedures for material storage and handling including use of secondary containment and barriers between material storage and traffic areas.		
- Develop training on the procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases as soon as possible.		
- Keep spill kits on-site, located near areas where spills may occur or where a rapid response can be made		
- Notify appropriate facility personnel when a leak, spill, or other release occurs. Where a leak, spill or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR part 302, occurs during a 24-hour period, you must notify the National Response Center (NRC) at (800) 424-8802 in accordance with the above referenced requirements as soon as you have knowledge of the discharge.		
- In the event of a spill, does the SWPPP indicate where the contact information is so that it is readily accessible and available?		
• **Erosion and Sediment Controls**		
- Does the SWPPP identify how exposed soils will be stabilized to minimize pollutant discharges?		
- Does the SWPPP identify flow velocity dissipation devices placed at discharge locations to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points?		
- Does the SWPPP identify structural and non-structural control measure to minimize the discharge of sediment?		

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Attachment 2: *MSGP SWPPP Review Guidance Checklist* Example (cont.)

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MSGP SWPPP Review Guidance Checklist

REQUIREMENT	YES/NO	NOTES
- If polymers and/or other chemical treatments are used for dust control or stabilization, does the SWPPP must identify the polymers and/or chemicals used and the purpose?		
• **Management of Runoff** - Does the SWPPP identify how stormwater runoff is diverted, infiltrated, reused, contained, or otherwise reduced to minimize pollutants in the discharge?		
• **Salt Storage Piles or Piles Containing Salt** - Does the SWPPP identify how salt piles are enclosed or covered?		
- Are controls in place to minimize exposure to stormwater resulting from adding to or removing materials from the salt pile?		
• **Non-Stormwater Discharges** - Does the SWPPP indicate that personnel will evaluate the site for non-stormwater discharges not explicitly authorized in Part 1.1.3 or covered by another NPDES permit and eliminate the discharge?)		
• **Dust Generation and Vehicle Tracking of Industrial Materials** - Does the SWPPP indicate dust generation and off-site tracking of raw, final, or waste materials must be minimized in order to minimize pollutant discharges?)		
Control Measures to Meet Numeric Effluent Limitations Guidelines-Based Limits (see Part 2.1.3 and Part 8)		
Are effluent limitations identified for the Sector D facility (Asphalt Paving) (see Part 8.D.4)?		
Are effluent limitations identified for the Sector A facility (Timber Products) (see Part 8.A.7)?		
Control Measures to Meet Water Quality Based Effluent Limits (see Part 2 and Part 9.6.2)		
Are the benchmark values (i.e., the Lowest New Mexico Water Quality Standard) listed in MSGP Section 9.6.2.1 identified in the SWPPP?		
Schedules and Procedures - Control Measures		
Does the SWPPP contain a schedule or convention used for determining when pickup or disposal of waste materials occurs?		
Are preventative maintenance procedures (including regular inspections, testing, maintenance and repair) for all control measures included in the SWPPP to avoid situations that may result in leaks, spills, and other releases?		
Are backup practices in place should a runoff event occur while a control measure is off line?		
Is there a schedule or frequency for maintaining all control measures?		
Are procedures included in the SWPPP for preventing and responding to spills and leaks, including notification procedures?		
Are control measures for material handling and storage identified?		
Are clean-up equipment, procedures and spill logs (i.e., reportable and non-reportable spill reports and the MSGP Corrective Action Reporting database) identified?		
Schedules and Procedures - Employee Training		
Are the following employees identified as requiring training?		

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Attachment 2: *MSGP SWPPP Review Guidance Checklist* Example (cont.)

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MSGP SWPPP Review Guidance Checklist

REQUIREMENT	YES/NO	NOTES
• Personnel who are responsible for the design, installation, maintenance and/or repair of controls (including pollution prevention measures)		
• Personnel responsible for the storage and handling of chemicals and materials that could become contaminants in stormwater discharges		
• Personnel who are responsible for conducting and documenting monitoring and inspections		
• Personnel who are responsible for taking and documenting corrective actions.		
Are the following identified as elements of required training?		
• An overview of what is in the SWPPP		
• Spill response procedures, good housekeeping, maintenance requirements, and material management practices		
• 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		
• When and how to conduct inspections, record applicable findings, and take corrective actions		
Are the following elements of the training plan documented in the SWPPP?		
• Content of the training		
• Frequency/schedule of training		
Are records of completed training kept in the SWPPP?		
Schedules and Procedures – Inspections and Assessments		
Is the procedure identified for conducting routine facility inspections?		
Is the procedure identified for conducting visual assessments?		
For each type of inspection performed (i.e., routine inspection and visual assessments) does the SWPPP identify the person (s) or positions of person(s) responsible for the inspection?		
Does the SWPPP contain an alternative schedule for conducting visual assessments in climates with irregular stormwater runoff discharges (see Part 3.2.3)?		
Are specific items to be covered by the inspection, including schedules for specific outfalls identified in the SWPPP?		
Is the facility claiming an exception as an inactive and unstaffed site? If yes, the facility must include information in the SWPPP that supports this claim as required by Parts 3.1.1, 3.2.3, 6.2.1.3 and 6.2.4.2. That is, the SWPPP must contain a signed certification indicating that there are no industrial materials or activities exposed to precipitation at the site and the NOI must be modified and re-certified.		
Schedules and Procedures – Monitoring		
Does the SWPPP contain documentation of procedures used to conduct benchmark, effluent limitations guidelines and impaired waters monitoring?		
Are locations where samples are collected, including any determination that two or more outfalls are substantially identical, in the SWPPP?		
Are parameters for sampling and the frequency of sampling for each parameter listed?		

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Attachment 2: *MSGP SWPPP Review Guidance Checklist* Example (cont.)

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MSGP SWPPP Review Guidance Checklist

REQUIREMENT	YES/NO	NOTES
Does the SWPPP contain schedules for monitoring at the facility, including a schedule for alternate monitoring periods for climates with irregular stormwater runoff (see Part 6.1.6)?		
Are numeric control values (benchmark, effluent limitations guidelines, water quality standards) applicable to discharges from each outfall identified?		
Does the SWPPP list procedures for gathering storm event data (see Part 6.1)?		
Schedules and Procedures - Substantially Identical Outfalls (SIOs)		
Does the SWPPP contain the following relative to SIOs?		
• Location of each of the substantially identical outfalls		
• Description of the general industrial activities conducted in the drainage area of each outfall		
• Description of the control measures implemented in the drainage area of each outfall		
• Description of the exposed material located in the drainage area of each outfall that are likely to be significant contributors of pollutants to stormwater discharges		
• An estimate of the runoff coefficient of the drainage areas (low = under 40%, medium = 40% to 65%, high = above 65%		
• Justification as to why the outfalls are expected to discharge substantially identical effluents		
Do Substantially Identical Outfalls identified on the SWPPP map match those identified in MDMRs?		
Is there language indicating quarterly visual assessments of substantially identical outfalls will be performed on a rotating basis throughout the permit term?		
Is there language indicating quarterly visual assessment of the discharge at one SIO will also apply to the other SIOs?		
Corrective Action Documentation - If an event triggering corrective action is associated with an SIO, did the review of the need for action encompass all related substantially identical outfalls?		
Documentation		
Does the SWPPP contain the following up-to-date and complete inspection, monitoring, and certification records?		
• Copy of NOI submitted to EPA along with any correspondence exchanged between the facility and EPA specific to coverage under this permit.		
• Copy of the acknowledgement you receive from the EPA assigning your NPDES ID.		
• Copy of the MSGP Permit (an electronic copy easily available to SWPPP personnel is also acceptable).		
• Documentation of maintenance and repairs of control measures, including the date(s) of regular maintenance, date(s) of discovery of areas in need of repair/replacement, and for repairs, date(s) that the control measure(s) returned to full function, and the justification for any extended maintenance/repair schedules (See Part 2.1.2.3).		
• All inspection reports, including the Routine Facility Inspection Reports (see Part 3.1.2) and Quarterly Visual Assessment Reports (see Part 3.2.2).		

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Attachment 2: *MSGP SWPPP Review Guidance Checklist* Example (cont.)

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MSGP SWPPP Review Guidance Checklist

REQUIREMENT	YES/NO	NOTES
• Description of any deviations from the schedule for visual assessments and/or monitoring, and the reason for the deviations (e.g., adverse weather or it was impracticable to collect samples within the first 30 minutes of a measurable storm event) (see Parts 3.2.3 and 6.1.5)		
• Corrective action documentation (see Part 4.4)		
• Documentation of any benchmark exceedances and the type of response to the exceedance employed including the following:		
- The corrective action taken;		
- A finding that the exceedance was due to natural background pollutant levels;		
- A determination from EPA that benchmark monitoring can be discontinued because the exceedance was due to run-on; OR		
- A finding that no further pollutant reductions were technologically available and economically practicable and achievable in light of best industry practice consistent with Part 6.2.1.2.		
• Documentation to support any determination that pollutants of concern are not expected to be present above natural background levels if you discharge directly to impaired waters and that such pollutants were not detected in your discharge or were solely attributable to natural background sources. (see Part 6.2.4.1)		
• Documentation supporting that stormwater discharges, allowable non-stormwater discharges, and stormwater discharge-related activities are not likely to adversely affect any species that are federally listed as endangered or threatened ("listed") and are not likely to adversely affect habitat that is designated as "critical habitat" under the Endangered Species Act (see Part 1.1.4.5).		
• Documentation supporting the determination that stormwater discharges, allowable non-stormwater discharges, and stormwater discharge-related activities meet one of the eligibility criteria for historic property preservation (Criterion A, B, C or D) (see Part 1.1.4.6).		
• All Discharge Monitoring Reports and Annual Reports		
• Support for claim that facility has changed its status from active to inactive and is unstaffed with respect to the requirements to conduct routine facility inspections, quarterly visual assessments, benchmark monitoring, and/or impaired waters monitoring.		
Is the SWPPP signed and dated by a duly authorized representative (per Part B.11)?		
Is the Annual Report signed by a duly authorized representative (per Part B.11)?		
SWPPP Modifications		
Where a corrective action triggers a change in any of the control measures or procedures, has the SWPPP been updated within 14 calendar days of completing the corrective action (see Part 4.4)?		
Are SWPPP modifications signed and dated by a duly authorized representative?		
Has the SWPPP been reviewed and does documentation exist as to the modifications made or why none were needed under the following circumstances?		

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Attachment 2: *MSGP SWPPP Review Guidance Checklist* Example (cont.)

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MSGP SWPPP Review Guidance Checklist

REQUIREMENT	YES/NO	NOTES
• An unauthorized release or discharge (e.g., spill leak, or discharge of non-stormwater not authorized by this or another NPDES permit to a water of the U.S.) occurs at your facility.		
• A discharge violates a numeric effluent limit listed in Table 2-1 and in the sector specific requirements.		
• The control measures are not stringent enough for the discharge to meet applicable water quality standards or the non-numeric effluent limits in this permit.		
• A required control measure was never installed, was installed incorrectly, or not in accordance with Parts 2 and/or 8, or is not being properly operated or maintained.		
• Whenever a visual assessment shows evidence of stormwater pollution (e.g., color, odor, floating solids, settled solids, suspended solids, foam).		
• Construction or a change in design, operation, or maintenance at your facility that significantly changes the nature of pollutants discharged in stormwater from the facility, or significantly increases the quantity of pollutants discharged.		
• The average of four quarterly sampling results exceeds an applicable benchmark (see Part 6.2.1.2). If less than four benchmark samples have been taken, but the results are such that an exceedance of the four quarter average is mathematically certain (i.e., the sum of quarterly sample results to date is more than four times the benchmark level) this is considered a benchmark exceedance.		
Public Accessibility of SWPPP		
Is your SWPPP uploaded to the URL provided in the NOI?		
Are subsequent SWPPP modifications (updates), records and all other reporting elements required for the previous year updated no later than 45 days after conducting the final routine facility inspection for the year?		
If you did not upload your SWPPPs to a URL, was the following information provided in the NOI and documented in the SWPPP?		
• Onsite industrial activities exposed to stormwater, including potential spill and leak areas (see Parts 5.2.3.1, 5.2.3.3 and 5.2.3.5);		
• Pollutants or pollutant constituents associated with each industrial activity exposed to stormwater that could be discharged in stormwater and/or any authorized non-stormwater discharges listed in Part 1.1.3 (see Part 5.2.3.2)		
• Stormwater control measures employed 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. If polymers and/or other chemical treatments are used as controls, these must be identified and the purpose explained.		
• The schedule for good housekeeping, maintenance, and schedule for all inspections required in Part 3.		

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Attachment 2: *MSGP SWPPP Review Guidance Checklist* Example (cont.)

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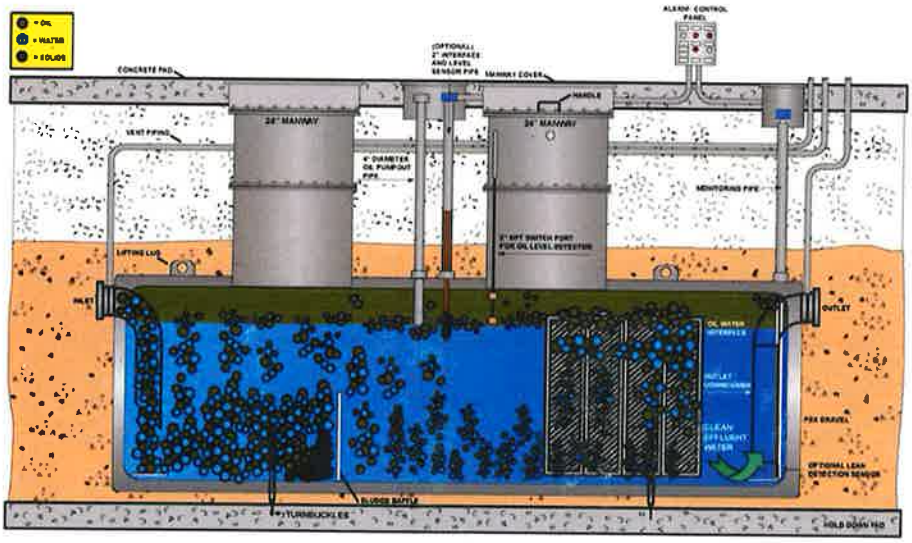
MSGP SWPPP Review Guidance Checklist

REQUIREMENT	YES/NO	NOTES
Are modifications to the SWPPP information required in the four bullets above submitted on a "Change NOI" form no later than 45 days after conducting the final routine facility inspection for the year?		
Corrective Actions		
Are corrective actions documented within 24 hours of becoming aware of such condition?		
Is the condition triggering the need for the corrective action identified?		
Is the date the corrective action was identified captured?		
Was immediate action taken to minimize or prevent the discharge of pollutants?		
In the case of leaks and spills, were response actions, date/time of clean up, notification, etc. documented?		

Attachment 24: **TA60-01 HEAVY EQUIPMENT SHOP OIL/WATER SEPARATOR (TA60-313) OPERATIONS AND MAINTENANE MANUAL**

Los Alamos
NATIONAL LABORATORY

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

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

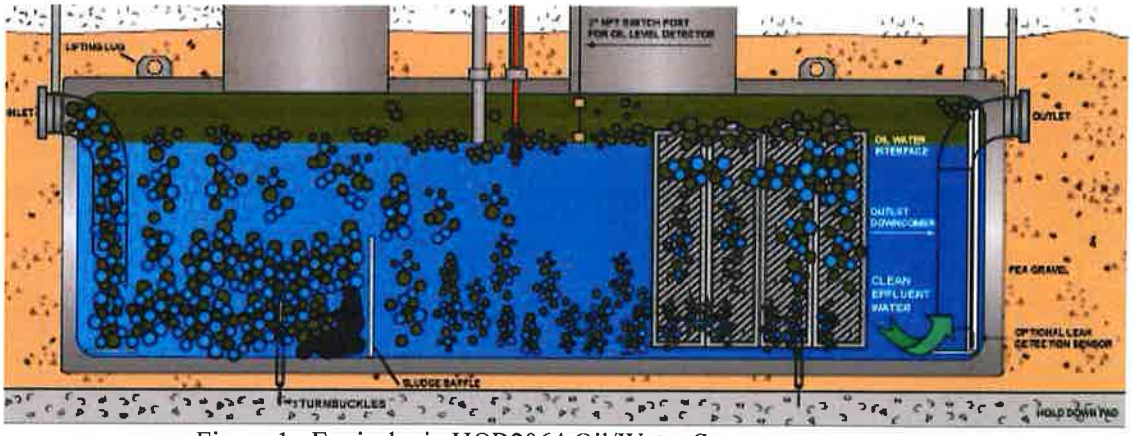


Figure 1. Envirologix HQB2064 Oil/Water Separator

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.

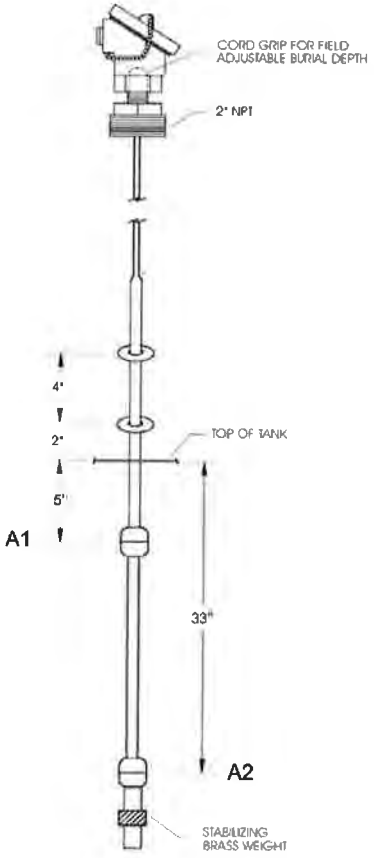


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Figure 3—Level Probe

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.

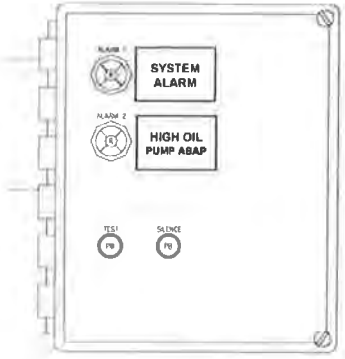

Figure 4—Alarm Panel

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

Air & Water Treatment Solutions
(888) 326-2020 / (678) 514-2100

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  - 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.

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

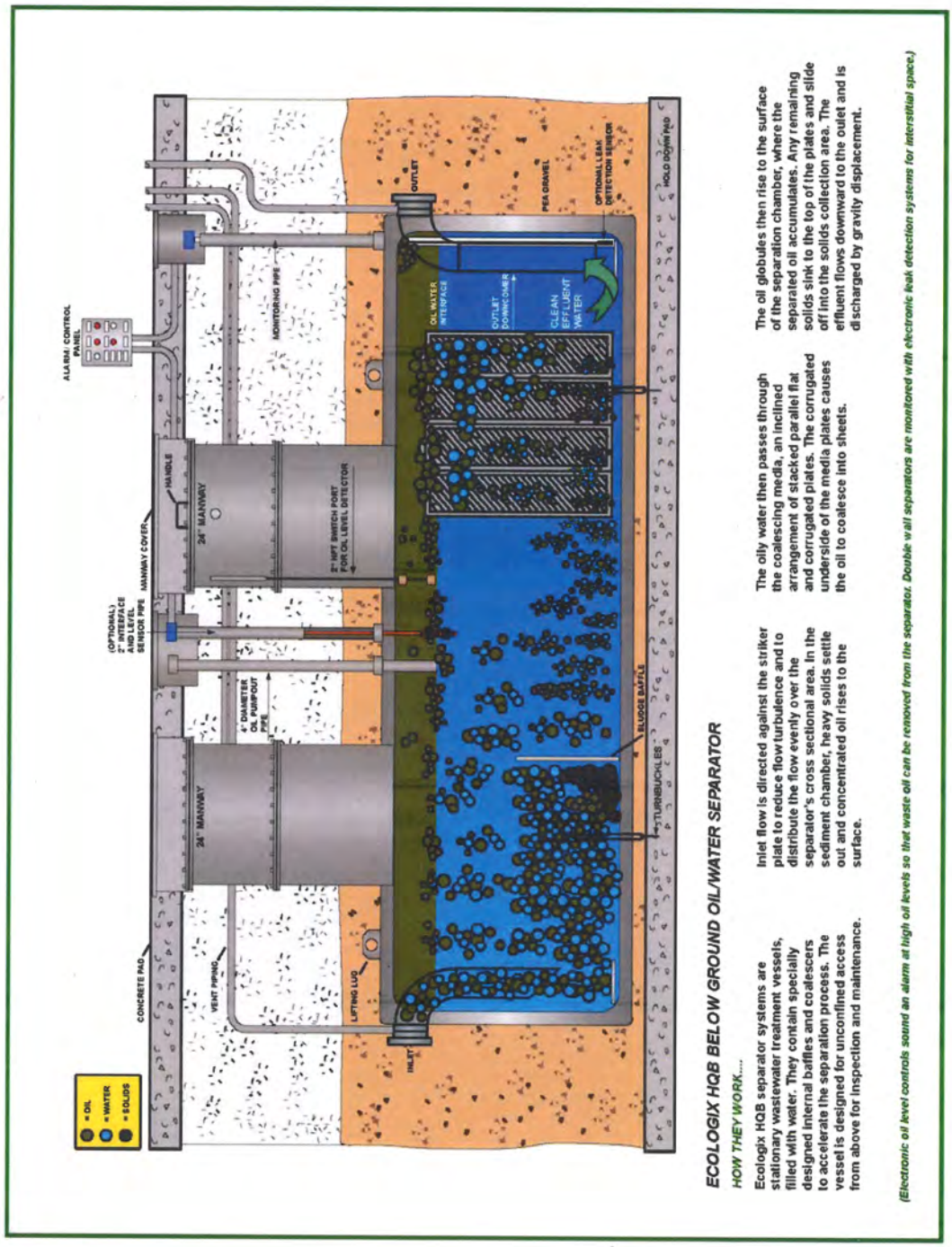
5.1. Collection system: The trench drain inlet should be cleaned of sludge and sediment on a twice yearly basis to prevent excess sediment from entering the OWS. If standing water is observed in the trench drain, the inlet pipe to the OWS should be checked for blockage and cleaned if necessary. The 6" 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



ECOLOGIX HQB BELOW GROUND OIL/WATER SEPARATOR

HOW THEY WORK....

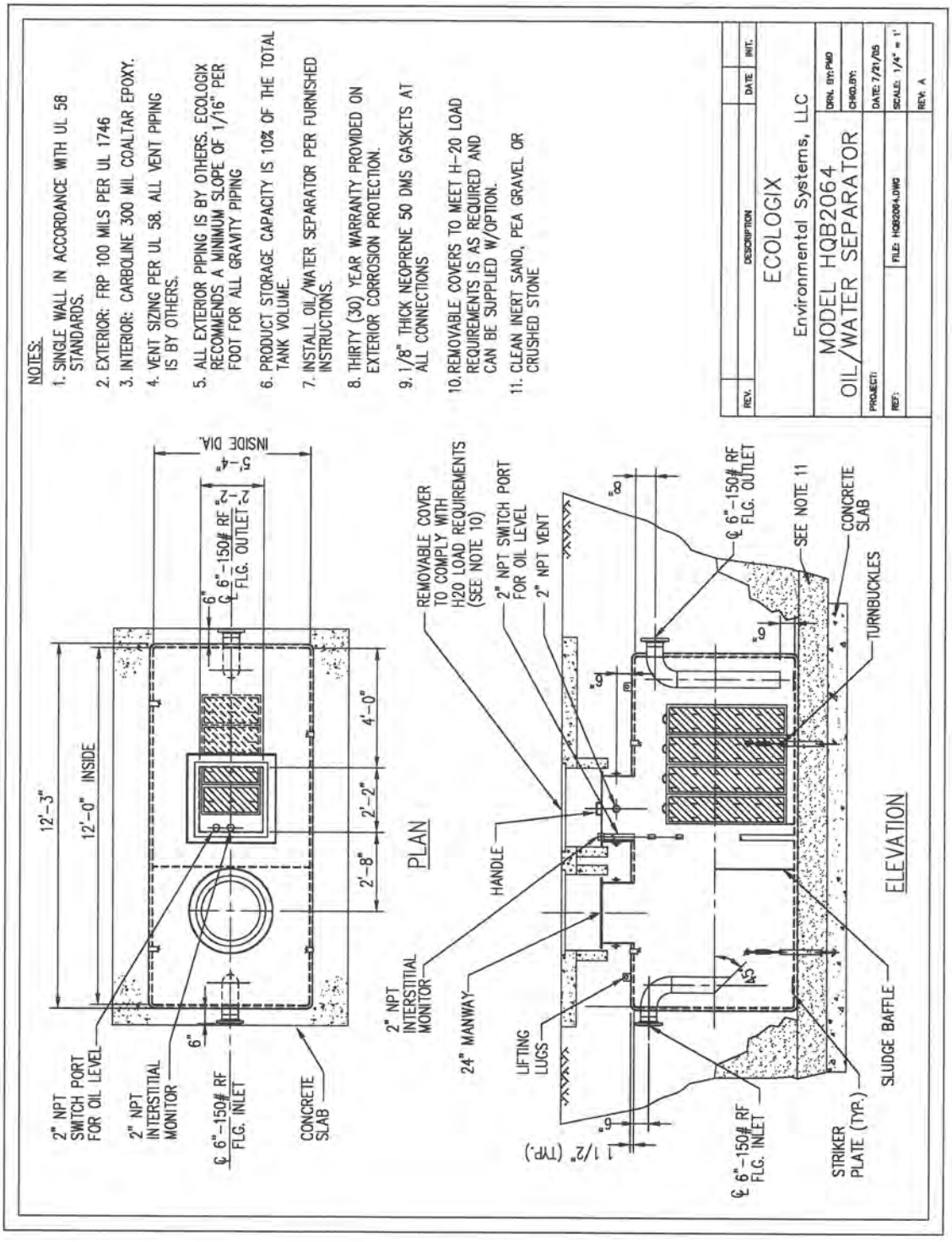
Ecologix HQB separator systems are stationary wastewater treatment vessels, filled with water. They contain specially designed internal baffles and coalescers to accelerate the separation process. The vessel is designed for unconfined access from above for inspection and maintenance.

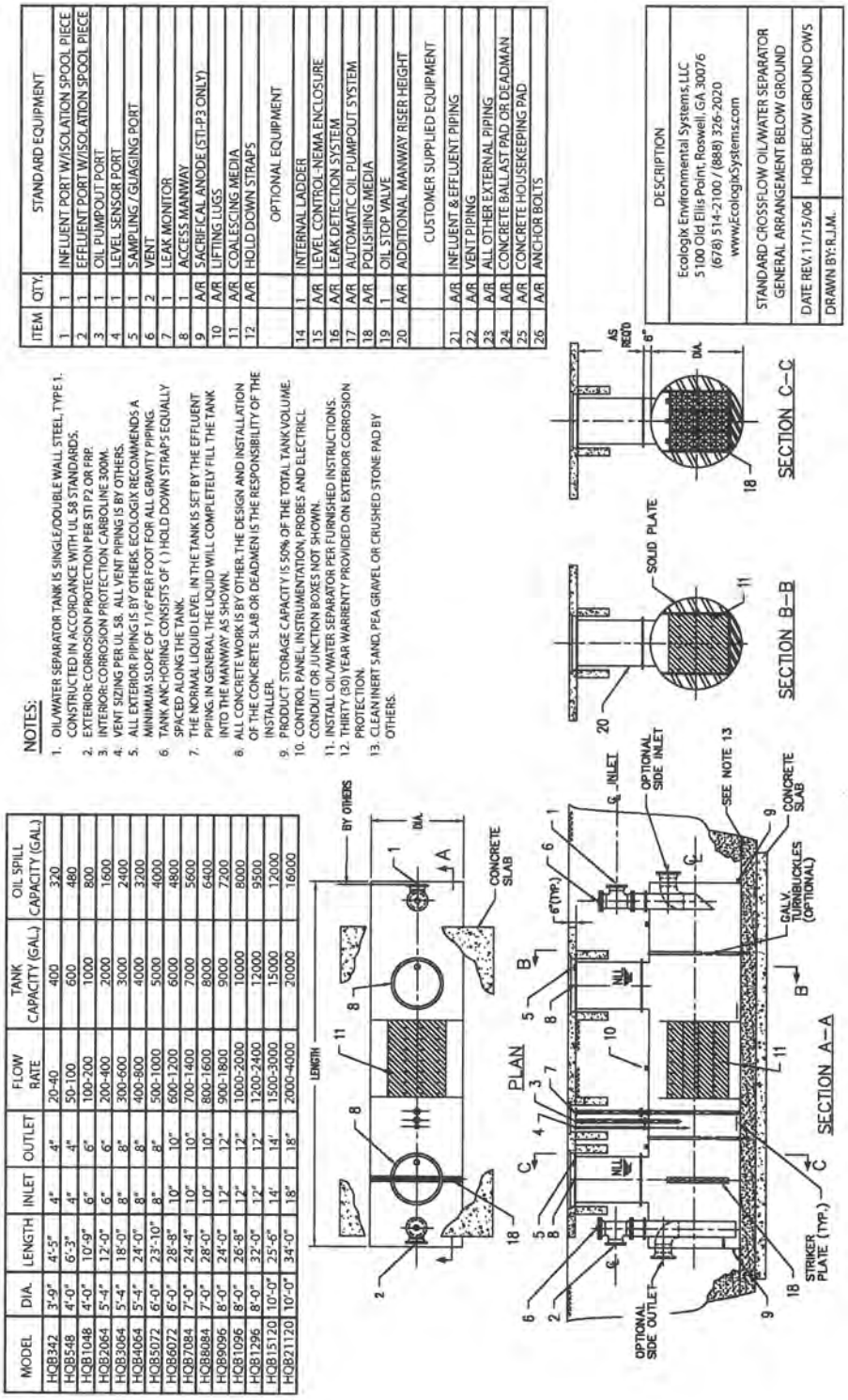
Inlet flow is directed against the striker plate to reduce flow turbulence and to distribute the flow evenly over the separator's cross sectional area. In the sediment chamber, heavy solids settle out and concentrated oil rises to the surface.

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
PROJECT:
REF:
FILE: HQB2064.DWG
SCALE: 1/4" = 1'
REV: A
INSIDE DIA.
5'-4"
6"
℄ 6"-150# RF FLG. OUTLET
12'-3"
12'-0" INSIDE
4'-0"
2'-2"
2'-8"
PLAN
2" NPT SWITCH PORT FOR OIL LEVEL
2" NPT INTERSTITIAL MONITOR
℄ 6"-150# RF FLG. INLET
CONCRETE SLAB
REMOVABLE COVER TO COMPLY WITH H20 LOAD REQUIREMENTS (SEE NOTE 10)
2" NPT SWITCH PORT FOR OIL LEVEL
2" NPT VENT
℄ 6"-150# RF FLG. OUTLET
SEE NOTE 11
CONCRETE SLAB
TURNBUCKLES
HANDLE
2" NPT INTERSTITIAL MONITOR
24" MANWAY
LIFTING LUGS
1 1/2" (TYP.)
℄ 6"-150# RF FLG. INLET
STRIKER PLATE (TYP.)
SLUDGE BAFFLE
ELEVATION



MODEL	DIA.	LENGTH	INLET	OUTLET	FLOW RATE	TANK CAPACITY (GAL.)	OIL SPILL CAPACITY (GAL.)
HOB342	3'-9"	4'-5"	4"	4"	20-40	400	320
HOB548	4'-0"	6'-3"	4"	4"	50-100	600	480
HOB1048	4'-0"	10'-9"	6"	6"	100-200	1000	800
HOB2064	5'-4"	12'-0"	6"	6"	200-400	2000	1600
HOB3064	5'-4"	18'-0"	8"	8"	300-600	3000	2400
HOB4064	5'-4"	24'-0"	8"	8"	400-800	4000	3200
HOB5072	6'-0"	23'-10"	8"	8"	500-1000	5000	4000
HOB6072	6'-0"	28'-8"	10"	10"	600-1200	6000	4800
HOB7084	7'-0"	24'-4"	10"	10"	700-1400	7000	5600
HOB8084	7'-0"	28'-0"	10"	10"	800-1600	8000	6400
HOB9096	8'-0"	24'-0"	12"	12"	900-1800	9000	7200
HOB1096	8'-0"	26'-8"	12"	12"	1000-2000	10000	8000
HOB1296	8'-0"	32'-0"	12"	12"	1200-2400	12000	9500
HOB15120	10'-0"	25'-6"	14"	14"	1500-3000	15000	12000
HOB21120	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

OIL WATER SEPARATOR OPERATION AND MAINTENANCE MANUAL

HQB2064

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.

Ecologix Environmental Systems, LLC www.ecologixsystems.com
Phone 678-514-2100 · Fax 678-514-2106

Table of Contents

Ecologix Environmental Systems, LLC www.ecologixsystems.com
Phone 678-514-2100 · Fax 678-514-2106

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.

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.*

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.

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.

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.

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.

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.

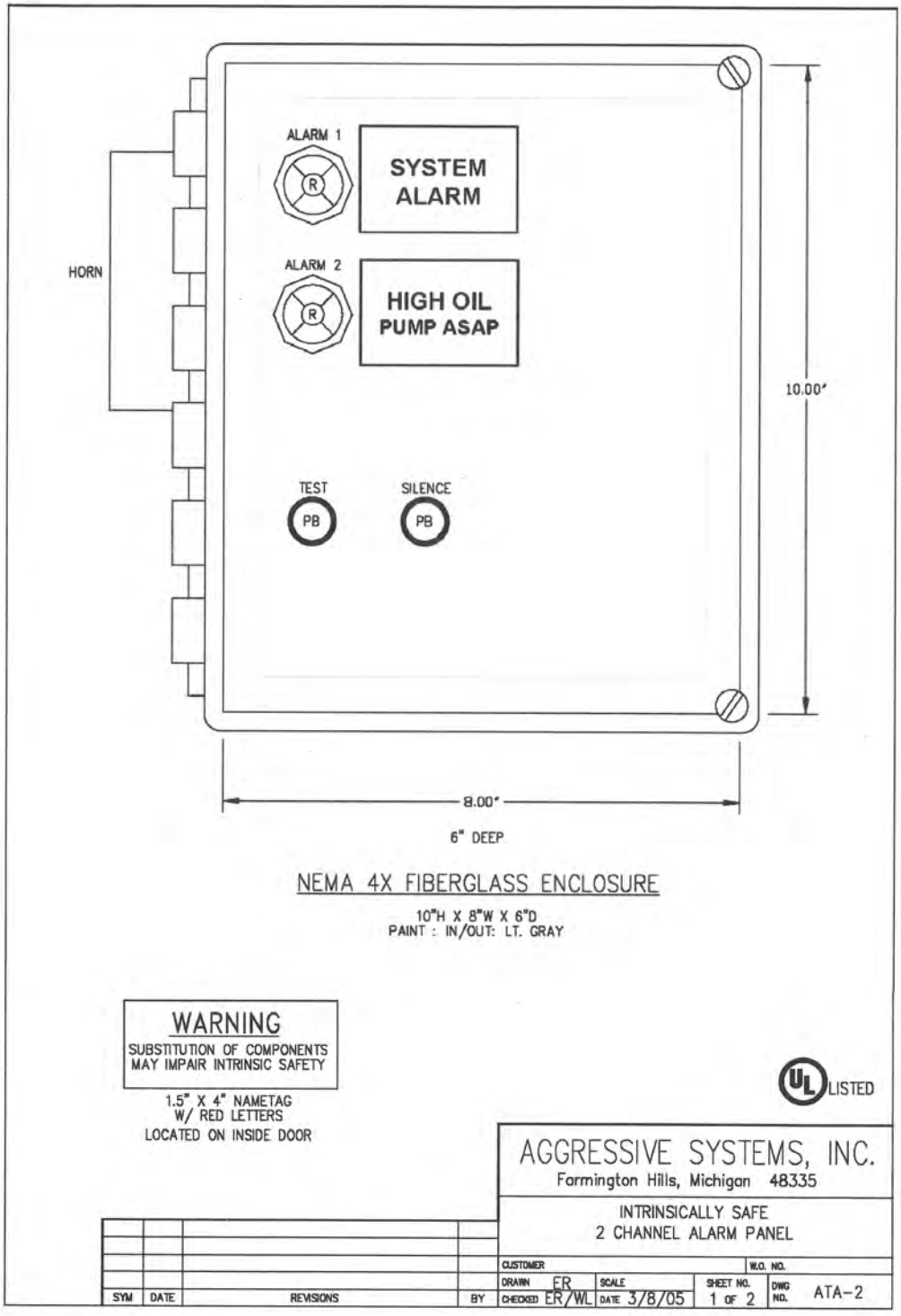
5. Check to make sure that the oil depth in the separator is not too great, a deep layer of product will reduce the efficiency of the separator. Free product should be removed and the separator put back in service.

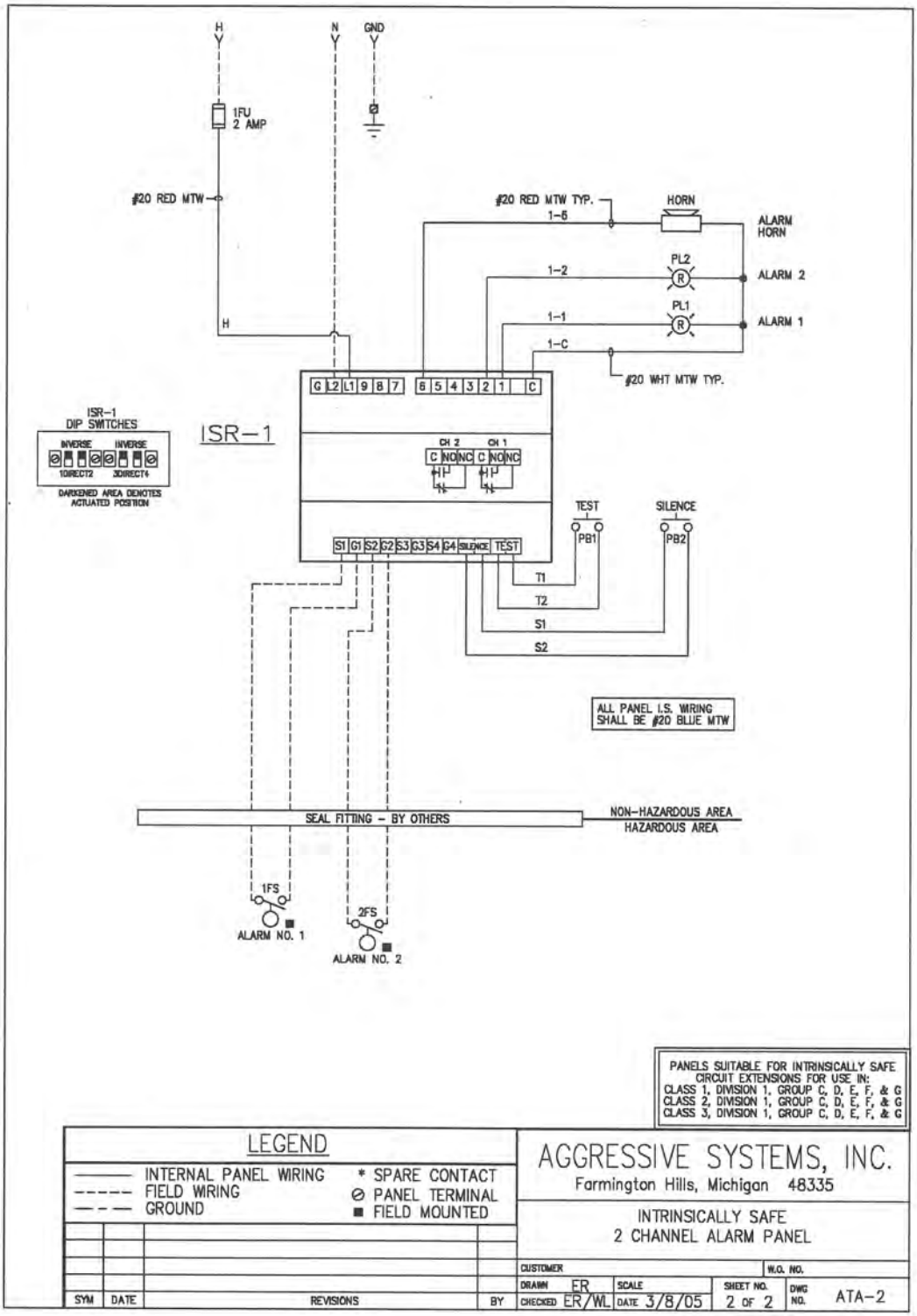
9.1 TROUBLESHOOTING GUIDELINE

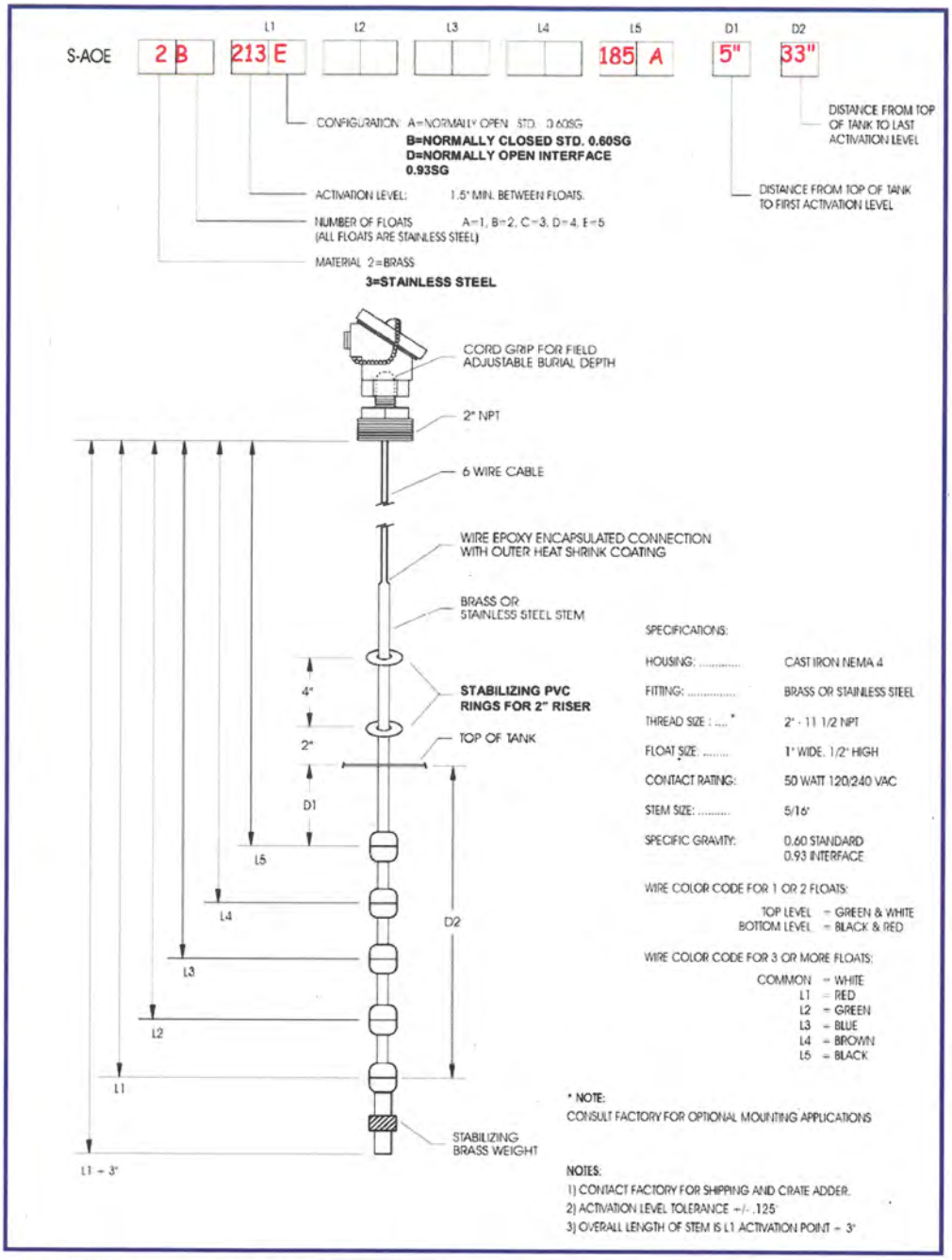
PROBLEM	POSSIBLE CAUSE	DIAGNOSTIC TECHNIQUE	CORRECTIVE ACTION
EFFLUENT CONCENTRATION TOO HIGH	Oil Concentration too Great for Design	Sample Influent	Decrease the Flow Rate
	Flow Too Great For Design	Check Flow	Decrease the Flow Rate
	Plates Blocked	Inspect, Remove Plates if Necessary	Clean Per Par. 8.4 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

AGGRESSIVE SYSTEMS LEVEL PROBE AND ALARM PANEL




H
N
GND
1FU
2 AMP
#20 RED MTW
#20 RED MTW TYP.
1-5
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
SYM DATE REVISIONS BY
AGGRESSIVE SYSTEMS, INC.
Farmington Hills, Michigan 48335
INTRINSICALLY SAFE
2 CHANNEL ALARM PANEL
CUSTOMER
W.O. NO.
DRAWN ER
CHECKED ER/WL
SCALE
DATE 3/8/05
SHEET NO. 2 OF 2
DWG NO. ATA-2



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.

Contact SMPI Technical Publications at the following address:
Technical Publications
Siemens Milltronics Process Instruments Inc.
1954 Technology Drive, P.O. Box 4225
Peterborough, Ontario, Canada, K9J 7B1
Email: **techpubs.smpi@siemens.com**

European Authorized Representative

Siemens AG
Industry Sector
76181 Karlsruhe
Deutschland

- 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.

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

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

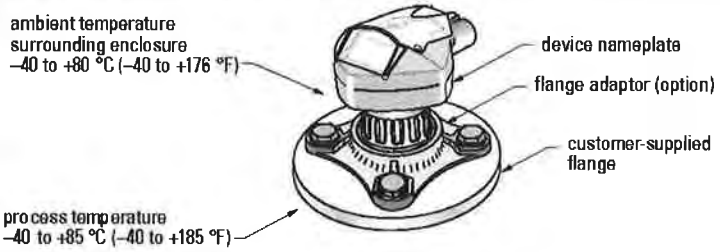
For a complete listing, see the SITRANS Probe LU (PROFIBUS PA) Instruction Manual. For Approvals information, please refer to the device nameplate[1].

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

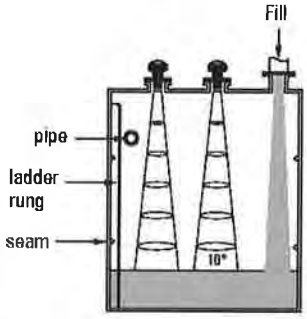
- Ambient temperature should be within –40 to +80 °C (–40 to +176 °F).
- Provide easy access for viewing the display and programming via the handheld programmer.
- Provide an environment suitable to the housing rating and materials of construction.
- Keep the sound path perpendicular to the material 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.**

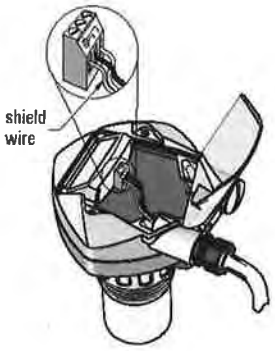
! **All field wiring must have insulation suitable for rated voltages.**

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

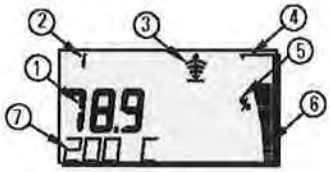
SITRANS Probe LU automatically starts up in **RUN** mode, and detects the material level. The LCD displays the material level referenced from the Low Level Point[2] (the output of Analog Input Function Block1/AIFB1). System status is displayed on the LCD, or on a remote communications terminal.

1. The instrument shield connection is internally connected to the external ground lug.
2. See *Quick Setup* on page 11 for an illustration.

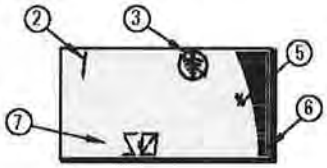
English

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)

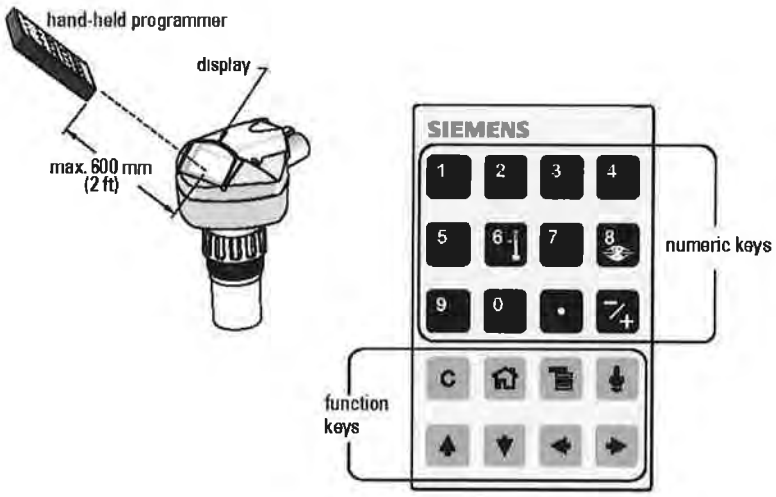
The parameters that control the operation of the Probe LU (PROFIBUS PA) are organized into function groups, and arranged in a 4-level menu structure that can be accessed either via the handheld programmer, or via PDM and PROFIBUS PA. (For charts showing the complete menu structure, refer to the full 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.

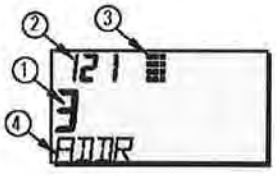


Within Program Mode, the handheld programmer has two modes of operation: Navigation and Edit.

- 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.

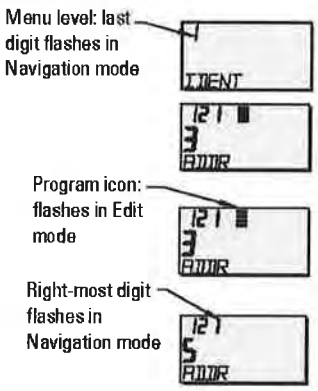
Network Address (default 126)

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** [M] 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 [M] 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

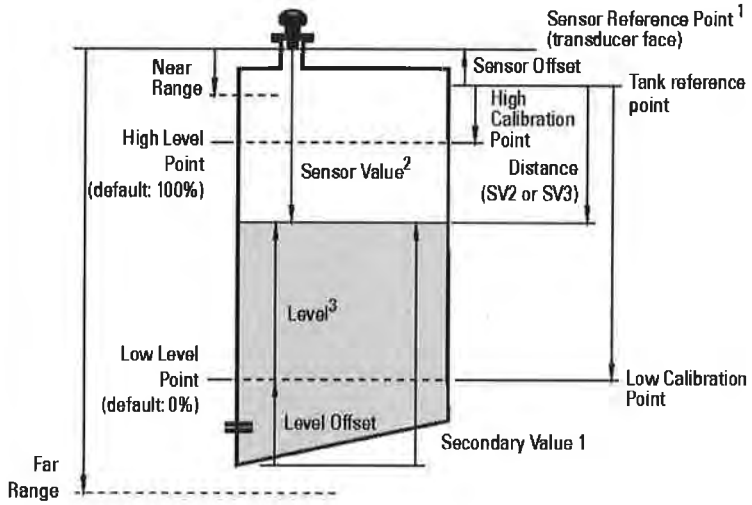
- First launch SIMATIC PDM, connect to SITRANS Probe LU (PROFIBUS PA), and upload data from the device.
- Adjust parameter values in the parameter view field (right side of screen).
- After adjusting the value, press **Enter** (the status fields read **Changed**).
- When you have completed the adjustments, 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)

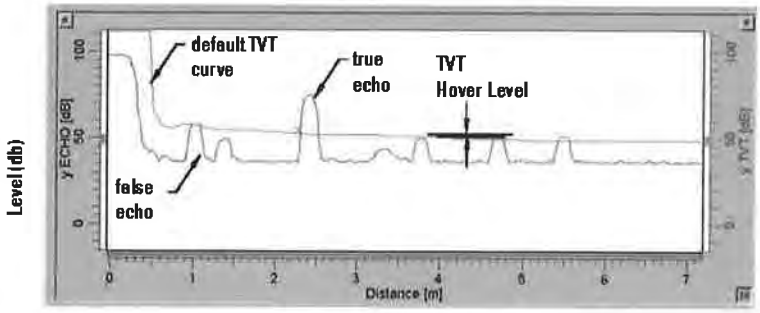
Defines the endpoint of the Learned TVT distance.

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.

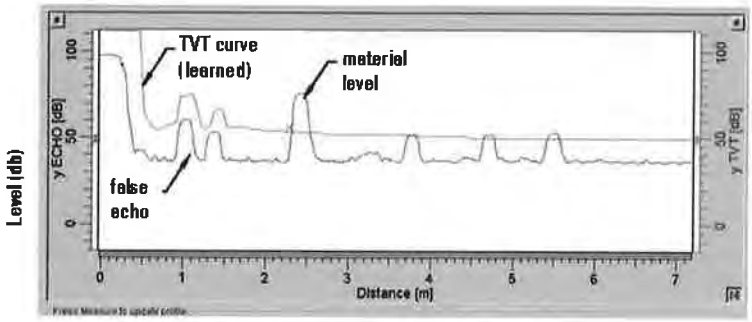
Display before Auto False Echo Suppression



[1] This parameter cannot be reset to the factory default.

English

Display after Auto False Echo Suppression



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.

English

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.

Attachment 25: **SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN FOR THE LOG-HERG REFUELING TRUCKS**

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

FOR THE

LOG-HERG REFUELING TRUCKS

Los Alamos National Laboratory

Prepared By:
Navarro Research & Engineering, LLC
190 Central Park Square Suite 203
Los Alamos, NM 87544
Phone: 505-661-4887

In Conjunction with:
Los Alamos National Laboratory
Water Quality (ENV-CP)

Revision 0: March 2010
Revision 1: April 2015

LA-UR-15-22845

TABLE OF CONTENTS

General Requirements Cross Reference

Final SPCC Rule 40 CFR	Description of Section	SPCC Section
§ 112.7	General requirements for SPCC Plans for all facilities and all oil types.	Introduction
§112.7(a.1, 2)	Discussion of facility's conformance with rule requirements; deviations from Plan requirements	1.1 Conformance
§112.7(a.3.i, iii)	Facility characteristics that must be described in the Plan; facility diagram	Section 2.0 Facility Description, Appendix E
§112.7(a.3.ii, iv, v, vi; a.4; a.5)	Spill prevention, response and reporting information in the Plan; emergency procedures.	Section 3. Spills and Appendix E
§ 112.7(b)	Fault analysis.	Section 3. Spills and Appendix E
§ 112.7(c)	Secondary containment.	2.1 Tank Trucks
§ 112.7(d)	Contingency planning.	N/A
§ 112.7(e)	Inspections, tests, and records.	1.3.1 Inspections and 1.3.2 Record keeping
§ 112.7(f)	Employee training and discharge prevention procedures.	1.3.3 Training
§ 112.7(g)	Security (excluding oil production facilities).	2.2 Security
§ 112.7(h)	Loading/unloading (excluding offshore facilities).	2.3 Transfer operations
§ 112.7(i)	Brittle fracture evaluation requirements.	1.3.1 Inspections
§ 112.7(j)	Conformance with State requirements.	1.1 Conformance
§ 112.8 § 112.12	Requirements for onshore facilities (excluding production facilities).	Throughout Plan
§ 112.8(a)§ 112.12(a)	General and specific requirements.	Throughout Plan
§ 112.8(b); (c.4, 5, & 11) § 112.12(b); (c.4, 5, & 11)	Facility drainage.	Section 2.0 Facility Description, 2.3 Transfer operations
§ 112.8(c.1, 2, 7) § 112.12(c.1, 2, & 7)	Bulk storage containers.	2.1 Tank Trucks
§ 112.8(c.3), § 112.12(c.3)	Bulk storage containers.	2.0 Facility Description
§ 112.8(c.6 & 10) § 112.12(c.6 & 10)	Bulk storage containers.	1.3.1 Inspections
§ 112.8(c.8) § 112.12(c.8)	Bulk storage container.	2.3 Transfer operations
§ 112.8(c.9) § 112.12(c.9)	Bulk storage container.	N/A
§ 112.8(d.1, 2 & 3) § 112.12(d.1, 2 & 3)	Facility transfer operations, pumping, and facility process.	2.3 Transfer operations
§ 112.8(d.5) § 112.12(d.5)	Facility transfer operations, pumping, and facility process.	2.4 Security
§ 112.8(d.4) § 112.12(c.4)	Facility transfer operations, pumping, and facility process.	1.3.1 Inspections
§ 112.9, § 112.13	Requirements for onshore production facilities.	N/A
§ 112.10 § 112.14	Requirements for onshore oil drilling and workover facilities.	N/A
§ 112.11 § 112.15	Requirements for offshore oil drilling, production, or workover facilities.	N/A

CERTIFICATION

This Plan was developed pursuant to provisions of the federal regulation for oil pollution prevention, 40 CFR Part 112. Its purpose is to provide spill prevention and response measures to prevent the pollution of navigable waters from oil related spills.

In accordance with 40 CFR Part 112.3 (d), this Plan has been reviewed and certified by a Registered Professional Engineer (PE). By means of this certification, the engineer, having examined the facility or having an agent examine the facility, and being familiar with the provisions of this regulation, attests that the Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of Part 112. Procedures for required inspections and testing have been established and this Plan is adequate for the facility.

Certified by:

Shellie Winsemius
Registered Professional Engineer
Navarro Research & Engineering, LLC

4-30-2015
Date:

Management Approval

This Plan has the full approval of management at a level with authority to commit the necessary resources. The owner/operator will fully implement this Plan in accordance with the requirements of 40 CFR Part 112.

Facility Owner/Operator

Approved By: _____ Date: _____
John F. Merhege, Logistics Division Leader

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN REVIEW PAGE

In accordance with 40 CFR 112.5(b), a review and evaluation of this SPCC Plan is conducted at least once every five years. As a result of this review and evaluation, the SPCC Plan will be amended within six months of the review to include more effective prevention and control technology if: (1) such technology will significantly reduce the likelihood of a spill event from the facility, and (2) if such technology has been field proven at the time of review. Any technical amendment to the SPCC Plan shall be certified by a Professional Engineer within six months after a change in the facility design, construction, operation, or maintenance occurs which materially affects the facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines. Non-technical amendments are not certified by a Professional Engineer.

I have completed review and evaluation of the SPCC Plan and will or will not amend the plan as indicated below

Review Dates	Signature	Name	Title	Amendment required (yes/no)
March 2015		Albert Dye	ENV-CP SPCC Program Lead	Yes

1. INTRODUCTION

The Spill Prevention Control and Countermeasure (SPCC) Plan is an Environmental Protection Agency (EPA) requirement of the Oil Pollution Prevention Regulation (40 CFR 112). 40 CFR 112.1(d)(2)(ii) requires that facilities that have an aggregate aboveground storage capacity of 1,320 gallons or greater of oil, including all containers and equipment 55 gallons or greater, maintain a SPCC Plan. The intent of the SPCC Plan is to prevent oil related spills from polluting navigable waters of the United States (U.S.) through the implementation of adequate prevention and response measures. With regard to Los Alamos National Laboratory (LANL), navigable waters of the U.S. include all canyons, arroyos, streams, and rivers within and surrounding LANL Technical Areas (TAs).

Due to LANL's diverse activities and changing conditions, a single Plan incorporating all LANL facilities subject to SPCC requirements is impractical. SPCC locations are addressed according to specific facility boundaries within LANL as determined by management and funding origination. The Facility Operations Director (FOD) or the facility tenant with approval from the FOD, develops, implements, and maintains SPCC Plans for the specific SPCC location(s) within their stewardship.

This SPCC Plan addresses the Heavy Equipment Shop and refueling trucks operated by the Logistics Heavy Equipment / Roads & Grounds (LOG-HERG) division at LANL.

1.1. Conformance

This SPCC Plan and facility conform to the requirements of 40 CFR Part 112 to the fullest extent possible. This facility has appropriate spill prevention, reporting, and response measures; tanks and secondary containment are appropriate for the materials stored (except as noted below); security is adequate; there are procedures for inspections, testing, and records; and annual training will occur.

Deviation from regulations for facility description:

- LOG may provide refueling services to construction vehicles and equipment located at construction sites that are regulated by 40 CFR 112 or 40 CFR 122. Such sites regulated by a SPCC Plan or Construction Storm Water Pollution Prevention Plan (SWPPP) are considered approved refueling sites based on regulatory requirements and will not be updated in this Plan. SPCC and SWPPP requirements include proper best management practices for ensuring that oil pollution prevention measures are administered during refueling activities. Facility maps and site specific pollution prevention requirements are available at the various SPCC and SWPPP regulated construction sites.

Future improvements to ensure compliance with regulations include:

- Train refueling personnel to respond to an incidental spill.
- Implement the use of the Remote Refueling Checklist form found in Appendix B.
- Train refueling personnel to identify adjacent storm drains and ditches and to choose and install temporary BMPs if needed.
- Perform refueling only at designated locations. If refueling must occur at an undesignated location, the location will be inspected for adjacent storm drains and ditches. Temporary BMPs will be installed if required.
- If temporary BMPs are specified for a location, fueling will not occur unless the temporary BMP has been installed by the facility or refueler team.
- Refueling will not occur during precipitation events in areas exposed to stormwater.
- Storage tanks will not be filled over 95%. The facility should determine the current level of fuel in the tank and request the specific amount to be delivered to not overfill their tank. It is strongly encouraged that all storage tanks be equipped with a level gage visible to refuelers. Vehicles can be filled until the dispensing nozzle shutoff is activated.
- Ensure drainage valve on outdoor portable container secondary containment is locked closed.

In addition to Federal regulations, this Plan complies with the New Mexico Environment Department (NMED) regulations for Ground and Surface Water Protection (NMAC 20.6.2). State water quality standards are considered when determining procedures for secondary containment drainage. These tanks do not fall under the NMED Petroleum Storage Tank Regulations (NMAC 20.5.1-17). The Certification of the Applicability of Substantial Harm Criteria is included in Appendix A.

1.2. Facility Owner & Operator

Refueling services at LANL are operated by Logistics Heavy Equipment / Roads & Grounds LOG-HERG Group for LANS.

Facility Owner and Operator.
Logistics (LOG) Division
Heavy Equipment / Roads & Grounds (LOG-HERG) Group
Los Alamos National Security LLC (LANS)

Contacts

Name	*Phone*	*Title*
Jillian Burgin	665-1893	DSESH-UIMS Deployed Environmental Professional
David Schrock	667- 6547	DSESH-EWMO Deployed Environmental Professional
Tim Walker-Foster	667 5177	LOG-HERG Group Leader
James Rabold	667- 5658	MSS-UI Operations & Maintenance Coordinator Lead

1.3. Management Responsibility

The owner/operator is responsible for preparing and implementing the requirements of the SPCC Plan. In addition to requirements specific to storage tanks and containment structures, 40 CFR Part 112 requires the development of procedures associated with inspections, record keeping, training, and Plan amendment. The following sections address implementation of these procedures at the facility.

This table shows the responsibilities that are further described in the SPCC Plan.

		ENV-CP	*Facility Owner/Operator*
General	*Prepare SPCC to meet regulatory requirements*	*X*	
	Approve SPCC		*X*
	Implement SPCC		*X*
	Approve physical changes needed to implement SPCC		*X*
	Provide oversight	*X*	*X*
	Leak and spill cleanup and disposal, provide spill information to ENV-CP, insert spill reports in Plan		*X*
	Spill reporting to state and federal regulators	*X*	
Inspections	*Provide qualified personnel to perform and write monthly SPCC walk around inspections*		*X*
	Provide annual DOT certification		*X*
	Provide qualified personnel to perform and write annual SPCC inspections	*X*	
	Implement corrective actions noted in inspections		*X*
Recordkeeping	*Maintain inspections in onsite SPCC*		*X*
	Maintain onsite training records for periodic briefings or Lessons Learned		*X*
	Review SPCC every five years	*X*	*X*
Training	*Provide annual training that meets SPCC regulatory requirements*	*X*	
	Ensure all oil handling personnel and designated persons accountable for discharge prevention attend annual training		*X*
Plan Amendment	*Provide information on changes to design, construction, operation or maintenance*	*X*	*X*
	Amend Plan when spill or other change in facility occurs	*X*	
	Implement changes to plan within 6 months of change to facility		*X*

1.3.1. Inspections

Inspections include monthly inspections, annual SPCC walk around inspections, and certified inspections. Procedures for each are detailed below. Records of each are kept in accordance with Section 1.3.2, Record Keeping. In the event of a problem, the deficiency is documented on the applicable inspection form and corrective action will be taken. Any identified leaks or problems associated with the system will be promptly corrected, and any oil accumulations will be removed.

Inspection Summary

Type	Frequency	Inspector
Periodic Inspections	Monthly	MSS-UI Deployed Environmental Professional EWMO Deployed Environmental Professional
Annual SPCC	Annual	Water Quality (ENV-CP)
Certified-DOT	Annual	Outside Contractor
Brittle Failure	Not applicable	n/a

Daily walk-around: Per DOT requirements the tanker trucks are inspected daily while in operation. Records are kept with the vehicles.

Periodic Inspections: Monthly periodic inspections are conducted by the Deployed Environmental Professional using the Periodic Inspection Checklist form in Appendix B. The inspections assess items recommended for periodic inspection in SP-001 including: condition of the tanks and portable containers, containment units, and tanker attachments and appurtenances.

Annual SPCC Walk-Around Inspections: SPCC inspections are performed by ENV-CP Water Quality personnel and assess compliance with the SPCC Plan including: recordkeeping, changes to the facility, the condition of the tanks and associated equipment. This inspection covers all areas required by SPCC regulations and are performed in accordance with the industry standard STI SP-001. SPCC inspections are performed using the SPCC Walk-Around Inspection Form located in Appendix B, and they identify the date the inspection was performed, facility/structure conditions, and identified deficiencies. Completed inspection forms contain the signature of the inspector. In addition, ENV-CP personnel will inspect the tank after a “Critical Situation” occurs such as a leak, exposure to fire, or a major storm.

Certified Inspections: The tanker trucks are inspected annually per DOT requirements. All of the other storage tanks and portable containers that are part of this plan are less than 1100 gallons and per STI SP001 only require a periodic inspection as described above.

Brittle Failure and Catastrophe Evaluation: Regulations require an evaluation for risk of discharge or failure due to brittle fracture or other catastrophe for field constructed ASTs that undergo a repair, alteration, reconstruction, or a change in service that might affect the risk of a discharge or failure. There are no field constructed oil storage ASTs at this facility, this evaluation does not apply.

1.3.2. Record Keeping

As required by 40 CFR 112.3(e), the SPCC Plan will be maintained at the facility at TA-60-1 Heavy Equipment Shop. The maintained plan includes inspection procedures, signed SPCC and certified inspections, drainage records, spill reports, and training records (as described below) that will be retained as part of this SPCC Plan at the facility for a minimum of three years. In addition, documents may be forwarded to the Records Management Team to be retained in accordance with Department of Energy requirements. Following is a summary of how record keeping requirements will be fulfilled at the facility:

- Completed AST Periodic Inspection Checklists, annual SPCC inspection reports, certified inspection reports, and Remote Refueling Checklist forms will be maintained as part of the SPCC in Appendix B.

- SPCC training records will be documented in the Employee Development System (EDS), in accordance with LANL's Institutional Program Conduct of Training ISD 781-1. Attendance records for Lessons Learned or periodic briefings are kept per facility requirements. Site Specific SPCC training records are retained in Appendix C.
- Amendments to the Plan will be recorded in the Amendment Log, Appendix D.
- A copy of spill reports will be retained in Appendix F.

1.3.3. Training

40 CFR Part 112.7(f)(1) states "Train your oil-handling personnel in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the facility SPCC Plan."

An online training program (Course: #30441) has been developed that covers spill procedure protocols; applicable pollution control laws, rules, and regulations; and lessons learned - information on known spill events or failures, SPCC Plan elements, and spill response procedures. This training program is required at least once a year for oil-handling personnel of SPCC facilities. Additional spill prevention briefings and information on known spill events or failures, malfunctioning equipment, and recently developed precautionary measures is provided to oil handling personnel through the LANL Institutional Program, Lessons Learned Notification and Feedback Program, or through periodic facility briefings on small spills. In addition to the above training, spill response personnel at LANL receive HAZWOPER training that covers spill prevention, control, and cleanup procedures. Site specific training is completed by required reading of this SPCC Plan and is documented in Appendix C.

Oil handling personnel and personnel that will have SPCC training at this facility include the Deployed Environmental Professionals identified in Section 1.2, the Resource Manager, Work Planners, and personnel who conduct fueling operations.

1.3.4. Plan Amendment

This SPCC Plan will be amended whenever there is a change in facility design, construction, operation or maintenance that materially affects the facility's potential for discharge of oil into or upon the navigable waters of the United States or adjoining shorelines. The Plan will also be amended as necessary if a spill causes a change in design, construction, operation, or maintenance. Such amendments shall be fully implemented as soon as possible, but not later than six months after such change occurs. Amendments to the Plan will be recorded in the Amendment Log, Appendix D.

In addition, in accordance with 40 CFR 112.5(b), a complete review and evaluation of this SPCC Plan will be conducted at least once every five years by the operating group and/or FOD and by ENV-CP. As a result of this review and evaluation, the SPCC Plan will be amended within six months of the review to include more effective spill prevention and control technology if:

1) Such technology will significantly reduce the likelihood of a spill event from the facility, and
2) If such technology has been field proven at the time of review.

Changes to the contact lists, as well as the addition of records to the Plan, do not require certification by a Professional Engineer. A Professional Engineer will certify all amendments that address technical changes such as a change in the facility's ability to discharge oil.

2. FACILITY DESCRIPTION

Logistics (LOG) is a multidisciplinary organization whose primary mission is to provide the Laboratory with safe, reliable, and efficient infrastructure maintenance and utilities support. LOG customers reside within 43 square miles involving approximately 1,400 building facilities.

This SPCC Plan addresses portable storage tanks used to refuel generators, fuel storage tanks, and vehicles around the Laboratory. It also addresses storage tanks and portable containers at the Heavy Equipment Shop, building TA-60-1, where the trucks are parked while not in service. At building TA-60-1 there is a 525 gallon used oil tank at the building used by the refuelers and the facility. There are also several drums stored outside the building and some drums and a tank located within the building.

LOG may provide refueling services to construction vehicles and equipment located at construction sites that are regulated by 40 CFR 112 or 40 CFR 122. Such sites regulated by a SPCC Plan or Construction Storm Water Pollution Prevention Plan (SWPPP) are considered approved refueling sites based on regulatory requirements and will not be updated in this Plan. SPCC and SWPPP requirements include proper best management practices for ensuring that oil pollution prevention measures are administered during refueling activities. Facility maps and site specific pollution prevention requirements are available at the various SPCC and SWPPP regulated construction sites.

A list of designated refueling locations is included in Section 2.4, and in addition, some refueling may occur in undesignated locations for emergency vehicles and portable emergency generators.

2.1. Tank Trucks

The SPCC amendments streamline requirements for mobile refuelers. Mobile refuelers are exempted from the sized secondary containment requirements. However, the general secondary containment requirements still apply. General secondary containment addresses the most likely discharge from the container and from oil transfers into and from the mobile refueler. General secondary requirements do not prescribe a size for a secondary containment structure but require that the containment system prevent the spilled oil from escaping the system prior to clean up occurring and that appropriate containment and/or diversionary structures or equipment to prevent a discharge to navigable waters or adjoining shorelines. Usage of the Remote Refueling Checklist found in Appendix B will identify the type of general secondary containment to be provided during refueling operations and to ensure that it is properly implemented.

The trucks are stored in the east side of TA-60-1 and the trucks pick up fuel offsite. The storage area is located about 1000’ feet via the drainage path from Sandia Canyon. Currently the area drains to a storm drain insert that filters for oil. Oil absorbing PetroBarriers™ units have been installed in the storm drain inlets at the northeast corner of the paved areas. The PetroBarriers™ are designed to allow to water to flow through while capturing small amounts of oil (oil sheens) from the water. They are also designed to completely stop the flow of all liquid if a release of oil or fuel were to flow into the storm drain.

Figure 1: TA-60-1 parking area storm drains equipped with PetroBarriers™

All of the refueling tanker trucks are in compliance with DOT standards and maintain current certifications. The tank truck fuel levels are checked by sticking the tanks once a week, the hoses are equipped with meters to track the amount dispensed. Each truck is equipped with a spill kit.

G82 0414A Fueling Truck

This truck has a 2000 gallon capacity diesel dispensing tank and a 1000 gallon gasoline dispensing tank. The dispensing hoses are equipped with automatic overfill shutoffs and a manual emergency shut off valve at the truck.

Figure 2: TA-60 G82 0414A Fueling Truck

G82 01079 Fueling Truck

This truck has a 2000 gallon capacity diesel dispensing tank and a 1000 gallon gasoline dispensing tank. The dispensing hoses are equipped with automatic overfill shutoffs and a manual emergency shut off valve at the truck.

Figure 3: TA-60 G82 01079 Fueling Truck

G82 01079 Replacement Truck

As of April 2015, a new fuel truck has been ordered to replace the G82 01079 vehicle. The specifications call for the replacement truck to be equipped with a DOT 406 certified, 4400 gallon tank, with four compartments: 2000 gallon diesel capacity; 1000 gallon unleaded gasoline capacity; 700 gallon E85 capacity; and 700 gallon B20 BIO diesel capacity. The fuel nozzles will be equipped with over-fill shutoffs

E29904 Fueling Truck

The 2800 gallon truck has a 2000 gallon E85 dispensing tank and an 800 gallon gasoline dispensing tank. The dispensing hoses are equipped with automatic overfill shutoffs and a manual emergency shut off valve at the truck.

Figure 4: TA-60 E29904 Fueling Truck

G82 0672D Service Truck

The service truck supplies oil, antifreeze, and grease on an on-call basis to undesignated areas via onboard pumps. The truck is equipped with skid mounted tanks with reel-mounted dispensing hoses that have automatic overfill shutoffs. There are four, 55 gallon polyethylene tanks and a 120 lb. grease container all of which are skid mounted on the truck bed. The truck has pumps for dispensing liquids and grease through hose reels located on a fixed shelf on a lube skid that allows them to be accessed from the rear of the load-bed area.

Figure 5: TA-60 G82 0672D Service Truck

TA-54 Tanker Truck

This truck has a 500 gallon fuel delivery tank, with 250 gallons of diesel and 250 gallons of gasoline. The tank is built to DOT 406 standards and is equipped with a pressure vent fill cap. The dispensing hoses are equipped with automatic overfill shutoffs. Due to access issues at TA-54, Area G, this truck is parked at TA-54, and does not leave the facility. The other tanker trucks deliver fuel to this tank for distribution within TA-54 by LOG staff. The TA-54 tanker truck is currently parked at the TA-54 Laydown Yard in a bermed earthen recessed catchment area.

Figure 6: TA-54 Tanker Truck

2.2. Heavy Equipment Shop

Building TA-60-1 is the Heavy Equipment Shop and is also covered under a MSGP Storm Water Pollution Prevention Plan. There is a 525 gallon plastic used oil tank at the building used by the refuelers and the Heavy Equipment Shop. It is located within a fiberglass containment unit that collects incidental spills for cleanup from when oil is poured in the manway top. There are several drums with oil and other chemicals stored outside the building within a secondary containment until that will have the drainage valve locked closed.

There are several oil drums and a 240 gallon LAFD listed oil tank located within the building. The building (and maintenance pits) acts as a secondary containment unit. .The northwest end of the facility drainage is captured by a trench drain that discharges into an oil-water separator.

2.3. Security

The TA-60-1 facility is locked when not staffed. There are no out of service pipelines. The storage tanks do not contain any master flow and drain valves that direct flow of the tanks' contents to the surface, the vehicles must be running to transfer fuel. TA-54 facility is fenced and access gates are lowered to prevent unauthorized entry into the area when the facility is not staffed. Both facilities have adequate lighting and security patrols to facilitate the discovery of a night spill and to deter vandals.

2.4. Facility Transfer Operations

There is no transfer piping associated with this plan. NFPA 385 Tank vehicles for Flammable and Combustible Liquids, Section 9.2.1, states that loading and unloading of tank vehicles shall be done only in approved locations. Filling of the tank trucks is performed offsite. The EOC tanks are fueled by an outside operator. Facilities with their own SPCC plans have developed site specific fueling procedures that must be followed. There are several facilities at LANL where refueling occurs but the oil capacity is under the threshold to require a SPCC. In general, at LANL, the areas where refueling operations will take place do not have dikes, oil catch basins, or a diversion system. General secondary containment requirements apply and active containment measures will be used. Specific spill prevention and containment measures for facility transfer operations are listed below, and the table shows the methods to be used at each site.

- The delivery system is equipped with an automatic overfill shutoff nozzle and a manual safety valve at the tank to shut off fuel flow.
- Utilize and properly follow the Remote Refueling Checklist (Appendix B).
- Refueling operations are monitored by personnel at all times and emergency spill absorbent materials are located on each truck in service for immediate use if needed.
- The refueling activity will occur in a designated area that would prevent a spill from entering a watercourse before the spill could be cleaned up. The area should be a flat gravel lot or asphalt area with temporary storm drain protection or temporary berms installed as needed. If temporary BMPs are specified for a location, fueling will not occur unless the temporary BMP has been installed by the facility or refueler team.
- If refueling must occur at an undesignated location, the location will be inspected for adjacent storm drains and ditches. Temporary BMPs will be installed if required.
- Refueling will not occur during precipitation events in areas exposed to stormwater.
- Storage tanks will not be filled over 90% unless the tank is equipped with a 95% overfill prevention valve. The facility must determine the current level of fuel in the tank and request the specific amount to be delivered to not overfill their tank.
    - Storage tanks should be equipped with a level gage visible to refuelers. It is recommended that tanks be equipped with failsafe devices to prevent overfilling.
    - Vehicles must not be filled past the point when the dispensing nozzle shutoff is activated, i.e., tanks must not be topped off with additional fuel.
- Future improvements may include installation of sight levels on tanks

SPCC regulated facilities at LANL with possible fuel transfer operations

Facilities with SPCC plans must describe facility transfer operations and appropriate procedures and containment. The table below describes where the procedures can be found.

Designated Fueling Locations **SPCC Regulated Facilities:** **Stationary Equipment**	**Site Specific Filling Procedure**	**General Secondary Containment Method (for refueling area) and Capacity**
TA-16 WETF Generator	described in facility SPCC Plan	• Temporary berms • Spill kit
TA-50 Artic generator	described in facility SPCC Plan	• Drain cover • Spill kit
TA-3 Power Plant emergency generator	described in facility SPCC Plan and UOI 66-20-170	• Spill container under refueling hose
TA-60 Emergency Generator trailer (stored at TA-60 Electrical yard but location will change when in use)	described in facility SPCC Plan	• If required at deployed location: Temporary berms • Spill kit
TA-33 Generator	described in facility SPCC Plan	• Spill kit
TA-3 SAS	described in facility SPCC Plan	• Spill kit
TA-48-270 generator	described in facility SPCC Plan	• Spill kit
TA-48-271 generator	described in facility SPCC Plan	• Spill kit
TA-55 PF8 Generator	described in facility SPCC Plan	• Spill kit
TA-55-362 CAS	described in facility SPCC Plan	• Spill kit
TA-55-364 facility Emergency generator	described in facility SPCC Plan	• Spill kit
TA-55 facility tanks in sumps	described in facility SPCC Plan	• Spill kit
TA-55-551 Utility Building	described in facility SPCC Plan	• Spill kit
TA-55-583, 584, 585 RLUOB Generators	described in facility SPCC Plan	• Spill kit
Designated Fueling Locations **SPCC Regulated Facilities:** **Vehicles and Mobile Equipment**	**Site Specific Filling Procedure**	**General Secondary Containment Method (for refueling area) and Capacity**
TA-55 Vehicle refueling	described in facility SPCC Plan	• Spill kit
TA-3 Power Plant vehicle refueling	described in this SPCC Plan	• Spill kit
TA-53 “orange box” vehicle fueling	described in this SPCC Plan	• Spill kit
Chromium Project Wells Construction Equipment	described in facility SPCC Plan (draft pending)	• Park uphill of berms when refueling • Spill kit

Other Designated fueling areas

Perform refueling only at designated locations. If on-call refueling of snowplows, lawnmowers etc is required, it must be done at one of the designated locations throughout the lab. If refueling must occur at an undesignated location, the location will be inspected for adjacent storm drains and ditches, and the Remote Refueling Checklist (Appendix B) will be followed prior to the required temporary BMPs. Procedures are discussed in Section 2.4.

Designated Fueling Locations: Vehicles and Mobile Equipment	General Secondary Containment Method
Heavy Equipment Shop TA-60-1	• Attended by two people • Spill kit
PTLA vehicle fueling TA-64	• Attended by two people • Spill kit
Utilities and Infrastructure Vehicles (TA-3-223, TA-46 SWSC)	• Attended by two people • Spill kit
TA-16 HE area	• Attended by two people • Spill kit
TA-54 fueling truck parking area TA-54 truck: (heavy equipment refueling area at end of Mesita del Buey road in Area G and at 54-315 access control to Area G)	• Spill kit
TA-60-250 Roads and Grounds	• Attended by two people • Spill kit
Unplanned locations: Emergency operations, etc.	• Attended by two people • Spill kit • Temporary BMPs will be installed if location requires.

Designated Fueling Locations: Stationary Equipment	General Secondary Containment Method
TA-3-1400 generator	• Attended by two people • Spill kit
TA-3-1498 LDCC generator	• Attended by two people • Spill kit
TA-35-88 generator	• Attended by two people • Spill kit
TA-35-27 generator	• Attended by two people • Spill kit
TA-3-40 generator	• Attended by two people • Spill kit
TA-16-218 generator	• Attended by two people • Spill kit
43-1 generator	• Attended by two people • Spill kit
59-1 generator	• Attended by two people • Spill kit
64-1 generator	• Attended by two people • Spill kit
73-1 generator	• Attended by two people • Spill kit
TA-33 portable generators	• Attended by two people • Spill kit

3. SPILLS

The following sections provide information on the potential for spill events at the facility and the established procedures to be implemented in the event of a spill. There have been no reportable oil spills, over reportable quantities, at the facility associated with the refueling operations. The Deployed Environmental Professional is the person accountable for discharge prevention and reporting to facility management.

3.1. Spill History

The following is a history of the spills related to the Refueler SPCC and documents spills that have occurred within the past three years. On December 12, 2012 at the TA-54 Laydown Yard within the Bermed Catchment Basin (truck storage area) approximately 16 oz.of fuel was spilled onto soil during refueling of the TA-54 Tanker Truck. The spill was properly cleaned up and waste was properly disposed of. On August 30, 2013, at TA-60-1, approximately 1.5 gallons of unleaded gasoline was spilled from G82 0414A due to overfilling of the tanker truck and then parking on an incline. Absorbent was used on the asphalt to absorb the fuel and several applications of micro-blaze occurred. On October 28, 2014 at TA-60-1, less than a quart of diesel was spilled from G82 01414A onto asphalt during replacement of the dispenser nozzle and subsequent leakage of residual fuel from the hose. Absorbent was applied and the area was sprayed with micro-blaze.

3.2. Potential Spill Predictions

Type	Type of failure (discharge scenario)	Potential Discharge volume (gallons)	Direction of flow for uncontained discharge	Secondary Containment Method and Capacity
Tank Trucks	Catastrophic	varies – max 2000	East to Sandia Canyon	PetroBarrier™ protected storm drain
Tank Truck	Catastrophic	Varies – max 500	North to Cañada del Buey	• Oil spill contingency plan and • Bermed containment area
Product transfer areas	Spills	a few gallons	depends on location- see maps in Appendix E	• oil spill contingency plan and • Temporary berms, depends on location, see table in Section 2.4

3.3. Spill Prevention

Spill prevention includes training employees on appropriate spill prevention and work procedures and performing inspections and maintenance activities to minimize the potential for equipment failure. Work is also to be performed using LANL's five step Integrated Safety Management approach, which evaluates a task and identifies potential hazards such as a spill event.

3.3. Oil Spill Contingency Plan

An oil spill contingency plan is a detailed oil spill response and removal plan that addresses controlling, containing, and recovering an oil discharge in quantities that may be harmful to navigable waters or adjoining shorelines. The LANL/Field Office Hazardous Materials Emergency Management Plan is available at https://adss.lanl.gov/emplans/100_r5-1_hmemp.pdf . Facility specific procedures are described below.

Definition of the authorities, responsibilities, and duties of all entities involved in oil removal operations:

Authorities	Contact Responsibilities	Response Duties
Onsite workers	Notify Deployed Environmental Professional and **contact EM at 7-6211 or 911** if necessary	Qualified workers may, but are not required to, clean up simple/small spills
Deployed Environmental Professional	Notify ENV-CP, document spill in SPCC Plan in accordance with Section 1.3.2	Contact the appropriate Waste Generator and Waste Management Coordinator for disposal.
EM	If EM is notified of a spill event, they will contact all additional applicable parties including ENV-CP	Respond per contingency plan
ENV-CP Water Quality	Completion of spill reports that are reportable to federal and state agencies. Provide information to federal and state agencies.	Provide oversight for spill mitigation activities.

Procedures for early detection and timely notification of an oil discharge;
Two personnel are present to monitor the refueling operations. The parking area is visited daily on work days. Notifications will occur as in the table above.

Assurance that full resource capability is known and can be committed following a discharge;
EM (Emergency Management) is a 24 hour fully trained and equipped team located onsite at LANL at TA-69. They maintain a mobile trailer capable of responding to an oil spill.
Each tank truck has a spill cleanup kit.

Actions for after discovery and notification of a discharge; *Procedures to facilitate recovery of damages and enforcement measures.*

LANLs EM team will respond to and clean up a spill per the LANL contingency plan available at http://rcra-permitapps.lanl.gov/General-Appendix%20E.pdf.

Disposal occurs by the Waste Management Coordinator (WMC) per LANL Procedure P409 Waste Management
http://policy.lanl.gov/pods/policies.nsf/MainFrameset?ReadForm&DocNum=P409&FileName=P409.pdf.
Oil stained soils are disposed of as NM special waste, plastic and spill absorbents are disposed of as used oil by the WMC.

ENV-CP will complete required state, federal, and DOE Order 232 ORPS reporting, including the federal reporting of spills in excess of 1,000 gallons or two combined spills greater than 42 gallons in 12 months in accordance with Laboratory and DOE policies and federal and state regulatory reporting requirements per P322-3 Performance Improvement from Abnormal Events
http://int.lanl.gov/policy/documents/P322-3.pdf.

Appendix A

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name: LOG-HERG Refueling Facility and MSS-EWMO TA-54 Refueling Truck

Facility Address: LANL, Los Alamos, NM

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

   Yes _____ No **X**

   Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?

   Yes _____ No **X**

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in accordance with EPA 40 CFR 112, App. C) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?

   For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments'' and the applicable Area Contingency Plan.

   Yes _____ No **X**

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in accordance with EPA 40 CFR 112, App. C) such that a discharge from the facility would shut down a public drinking water intake 2?

   Yes _____ No **X**

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a re-portable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?

   Yes _____ No **X**

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

John F. Merhege — Name (please type or print)

Logistics Division Leader — Title

Signature

Date

Appendix B

Inspection and Maintenance Records

1. **Blank monthly inspection form**
2. **Blank annual inspection form**
3. **Remote Refueling Checklist**
4. **Completed inspection and checklist records**

AST Periodic Inspection Checklist - Heavy Equipment Shop

Note any leaks, deficiencies, or changes. Repair any deficiencies found. If the tank or secondary containment has a leak, remove tank from service within 24 hours.

Frequency	Date	By	Item inspected	Comments
Monthly			Tanker trucks: G82 0414A G82 01079 E29904 G82 0672D Service Truck	
			Used Oil tank	
			Outdoor Drum storage and containment	
			Indoors Drum and tank storage and containment	
			Storm drain protection or secondary containment units	
Monthly			Tanker trucks: G82 0414A G82 01079 E29904 G82 0672D Service Truck	
			Used Oil tank	
			Outdoor Drum storage and containment	
			Indoors Drum and tank storage and containment	
			Storm drain protection or secondary containment units	
Monthly			Tanker trucks: G82 0414A G82 01079 E29904 G82 0672D Service Truck	
			Used Oil tank	
			Outdoor Drum storage and containment	
			Indoors Drum and tank storage and containment	
			Storm drain protection or secondary containment units	

AST Periodic Inspection Checklist- TA-54 Mobile Refueler

Note any leaks, deficiencies, or changes. Repair any deficiencies found. If the tank or secondary containment has a leak, remove tank from service within 24 hours.

Frequency	Date	By	Item inspected	Comments
Monthly			Tanker trucks: TA-54 tanker truck	
			Recessed earthen catchment (structurally intact, berms diverting run-on)	
Monthly			Tanker trucks: TA-54 tanker truck	
			Recessed earthen catchment (structurally intact, berms diverting run-on)	
Monthly			Tanker trucks: TA-54 tanker truck	
			Recessed earthen catchment (structurally intact, berms diverting run-on)	
Monthly			Tanker trucks: TA-54 tanker truck	
			Recessed earthen catchment (structurally intact, berms diverting run-on)	
Monthly			Tanker trucks: TA-54 tanker truck	
			Recessed earthen catchment (structurally intact, berms diverting run-on)	
Monthly			Tanker trucks: TA-54 tanker truck	
			Recessed earthen catchment (structurally intact, berms diverting run-on)	

REFUELING ANNUAL SPCC WALK-AROUND INSPECTION FORM

Inspection Date: _____ Certified Inspector:_____
Others Present: _____

General Information	Status	Comments
Last SPCC review/revision date		
Any changes to facility that impact ability to discharge oil? (new or removed tanks, oil filled equipment, or drums; changes to procedures):		
SPCC Records maintained?		
Training complete?		
Spill Control equipment		
Refueling areas (signs of spills, BMPs available for temporary drainage control)		
Security (lighting, fencing)		

Tanker Trucks	Status	Comments
Tank Shell and Coating Condition		
Piping, Pumps, Flanges, Valves, Vents, dispensers Condition		
General Condition of Containment Unit:		
Housekeeping		
Other Issues		

Results of annual tests by others

G82 0414A DOT Certified Date:_____

G82 01079 DOT Certified Date:_____

E29904 DOT Certified Date:_____

G82 0672D DOT Certified Date:_____
TA-54 Tanker DOT Certified Date:_____

Recycle Oil Tank	Status	Comments
Tank Shell and Coating Condition		
Piping, Pumps, Flanges, Valves, Vents Condition		
General Condition of Containment Unit:		
Housekeeping		
Other Issues		

Portable Container Storage Areas	Status	Comments
Spill Control equipment		
Housekeeping		
Security (lighting, fencing)		
Area drainage		
Condition of secondary containment (discharge valve closed (if any), accumulated water, etc)		
Condition of containers and containments (dents, bulging, leaks, etc.)		

Items Requiring Corrective Actions:_____

_____

Corrective actions taken (give dates):_____

_____

Other Comments:_____

_____

Inspector's signature: _____ Date:_____

Owner/Operator signature: _____ Date:_____

Los Alamos National Laboratory
Los Alamos National Security, LLC.
LOG-HERG Refueling Trucks SPCC Plan
Remote Refueling Checklist

Overview:
Pursuant to 40 CFR 112 of the Oil Pollution Prevention Regulations and this SPCC Plan, the check list of questions below must be fully evaluated to determine if the site is acceptable for refueling of construction equipment and off-road construction vehicles.

References:
The information in this document is based on and in compliance with the Technical Standards and Safety Act, 2000 and the Technical Standards and Safety Authority's (TSSA) Liquid Fuels Handling Code, 2007.

Refueling Criteria:

Dispensing of fuel shall not take place within

1) a building;
2) during a precipitation event (heavy raining, snowing, etc.);
3) within 90 feet of access to a storm drain, arroyo, drainage channel, or watercourse;
4) 5 feet from any opening in a building; or
5) 9 feet from any source of ignition.

BMP's for Refueling:

1) Perform regular preventative maintenance on tanks and fuel lines
2) Use dry cleanup methods for the fueling area as opposed to hosing it down; use dry sweeping compounds.
3) **Avoid topping** off fuel tanks in receiving equipment, which may cause spills by overfilling
4) Refuel in areas of impervious pavements. This allows for spill cleanup using dry absorbent materials before precipitation can wash spills away.
5) Use drip pan under hose and dispensing nozzle.
6) Use fueling hoses with check valves to prevent hose drainage.
7) Train personnel on remote fueling BMP's

The fueling truck is equipped with spill control equipment to address potential spills from fueling activities: Yes ❑ No ❑

If the refueling activity does not meet all of the items and spill control equipment is not available on the refueling vehicle, contact ENV-CP at (667-0666) to assess alternative and/or additional BMP requirements.

I certify that the above information is correct to the best of my knowledge:

_____ _____
Fueler's Signature Date:

insert DOT tanker inspection certifications for all tanker trucks

Appendix C
Training Records

SPCC Training Roster

Subject: SPCC Training
Instructor: self-study

Your signature certifies that you have read the **Refueling SPCC** and are familiar with the SPCC Program, operator observance procedures, and pollution control laws, rules, and regulations as outlined in the SPCC.

Name	Signature	Date

Appendix D

Plan Amendment Tracking Log

Date	Plan Section	Amendment	PE Certification needed?
4/2015	All	Update of SPCC Plan for changes to covered vehicles, fueling locations, storage site BMPs, and organizational changes	Yes

Appendix E

Facility Diagrams and Other Information

Tanker Truck Parking Area at TA-60-1

TA-54 Refueling Truck Parking Location

Typical Emergency Generator where refueling operations take place (TA-48-1)

Appendix F

Spill Reports