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STORMWATER POLLUTION PREVENTION PLAN

TA-60 Asphalt Batch Plant

Los Alamos National Laboratory

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

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PREFACE

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

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

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

SECTION 1: FACILITY DESCRIPTION AND CONTACT INFORMATION

1.1 Facility Description and Contact Information

The Asphalt Batch Plant is located in Technical Area 60 along Eniwetok Drive at the far East end of Sigma Mesa, within Los Alamos National Laboratory, in Los Alamos County, New Mexico.

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

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

Leonard F. Sandoval, MSGP SWPPP Inspector
Deployed Environmental Professional (DEP), CISEC
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lesandov@lanl.gov

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

1.2 Stormwater Pollution Prevention Teams

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

Designation of Pollution Prevention Teams

The Stormwater PPT for the TA-60-ABP consists of operations and management personnel from UI FOD and the facility, a representative from EPC-CP, and a DEP. The

EPC-CP representative is responsible for providing guidance to ensure compliance under the National Pollutant Discharge Elimination System (NPDES) permit regulations. The team members are selected on the basis of their familiarity with the activities at the facility and the potential impacts of those activities on stormwater runoff.

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

- **Pollution Prevention Team Leader:** The PPT Leader is identified in Appendix A of this SWPPP. The Team Leader or designated representative will assist EPC-CP and/or the DEP in performing routine inspections as described in Section 5.1 of this SWPPP. The Team Leader or designated representative will also ensure that appropriate facility and other LANS personnel receive the training specified in Section 4.5 of this SWPPP.
- **Team Members:** Other members of the team are responsible for the implementation of this SWPPP and the required periodic inspections, as described in Section 5 of this SWPPP. In the event of a spill or release, a team member will ensure that prompt clean up occurs and will incorporate documentation of the Spill Tacking Table located in Appendix G of this SWPPP. Team members will also be selected to assist/represent the Team Leader in performing routine, annual, and visual site inspections
- **EPC-CP Project Lead:** Supports the facility and provides guidance associated with the implementation of the compliance requirements identified in the 2015 MSGP. The EPC-CP Project Leader also acts as the institutional point of contact for all interactions with the regulatory authority (EPA) and supervises personnel implementing monitoring requirements for the facility.
- **DEP:** Responsible for the SWPPP updates and conducting the routine facility inspections and entering corrective actions into the CAR database. The DEP is also responsible for tracking and updating the status of corrective actions that cannot be implemented immediately.
- **All members:** All PPT members are responsible for being familiar with and implementing this SWPPP and for compliance with the 2015 MSGP.

1.3 Site Description/Industrial Activities

The industrial activities at this site are classified under **Sector D – Asphalt Paving and Roofing Material and Lubricant Manufacturing**. The facility is located within TA-60 of LANL at the eastern edge of Sigma Mesa. The facility primarily consists of an office trailer for the facility operator and a BDM Model TM2000 Asphalt Plant with associated oil tanks. A propane tank was also on site, but was removed during the summer of 2015. Locations of the activities and the major structures at the facility are shown on the Site Map in Appendix B, Figure B-2.

The primary function of the facility is to produce asphalt for the Laboratory by using a “batch” process (as needed per project). The asphalt batch is then transferred to trucks for delivery to project sites. An overview of the plant’s operational process is as follows:

- Aggregate material, used as feed stock for the asphalt production, is stockpiled on the west side of the property. There is at least one and sometimes more piles of material stored on the ground. The volume of stockpiled aggregate material on site at any given time is approximately 3,000 cubic yards.
- Front-end loaders transfer the aggregate material from stockpiles to a hopper/feeder unit and the material is then mechanically fed to the asphalt processing plant. The processing plant (a BDM Model TM2000 Asphalt Plant) includes a Hopper/Feeder Bin attached to a Conveyor Belt (Structure 60-234), and a Batch Tower with Drop and Dryer Unit (Structure 60-236).
- Asphalt emulsion oil and heated aggregate are mechanically mixed in the Batch Tower (Structure 236).
- Processed asphalt is transferred (dropped) from the Batch Tower into delivery trucks.
- Air emissions are controlled by Bag House (Structure 60-235). Air emissions from the facility (including NOx, SOx, particulate matter) are regulated and are currently in compliance with applicable air quality permits issued to LANL.

1.4 General Location Map

The general location map for the facility can be found as Figure B-1 in Appendix B. The map is a 2010 fly over that provides a general/regional location of the facility. Figure B-3 in Appendix B shows the Threatened and Endangered Habitat for the Mexican Spotted Owl.

1.5 Site Map

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

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

- **Site acreage.** The site covers approximately 2.3 acres
- **Significant structures and impervious surfaces.** Less than 0.1 acre of the site contains impervious surfaces such as structures, roofs, paved areas, base-course structures and other surfaces. The major structures on the site include:
 - An office trailer (60-233) and two portable trailers for storage

- Hopper/Feeder attached to Conveyor Belt (60-234)
- Asphalt Batch Tower (with Drop) & Dryer Unit (60-236)
- Above Ground Oil Storage Tanks - 15,000 gallon and 115 gallon (60-237)
- Bag House (60-235)
- ZEP truck spraying structure
- 16,000 gallon Liquid Propane Tank that was removed in 2015
- **Directions of stormwater flow and site drainage.** Direction of flow is indicated with arrows. The facility has a gentle downward grade toward the south-southeast and site drainage and stormwater flow is in that direction. Stormwater flow across the facility is directed towards the stormwater retention pond located at the southeast corner of the facility boundary.
- **Locations of structural stormwater controls; Locations of stormwater conveyances.**
 - An engineered stormwater retention pond is located in the southeast corner of the site. A Parshall Flume that is part of monitored Outfall 60-043 for the facility is located on the east side of the pond and serves as the only outlet structure. In 2015 the fabric liner that was installed in the bottom of the pond and layer of 3/4 inch river rock that was added in 2011 were removed. In order to help increase the holding capacity and retention time of storm water the depth of the pond was also increased by 2 feet.
 - A one-foot high berm (made of base-course and earthen materials) is located along the east, west and south boundaries of the site and serves to redirect stormwater flow toward the retention pond.
 - Two rock check dams made of angular rock were installed in 2014 at the west end of the retention pond that receives stormwater runoff to help reduce the sediment load in the stormwater collected in the pond.
 - A stormwater ditch is located along a portion of the east boundary and also conveys drainage to the detention pond.
 - Concrete containment pads with 3 inch curbs surround the oil storage tanks (Structure 60-237), providing containment for potential oil leaks.
- **Locations of receiving waters.** Receiving waters in the immediate vicinity of the facility are shown in Figure B-3, Appendix B. Impaired waters information is provided on the map and also in the paragraph below this section in the SWPPP.
- **Location of potential pollutant sources; Locations of activities that are exposed to precipitation and potential sources of pollutants.**
 - Processed asphalt is loaded/ transferred from the batch tower (Structure 60-236) into delivery trucks.
 - Liquid (asphalt emulsion oil and heating oil) is stored in two above ground storage tanks (Structure 60-237).
 - Oil loading/fueling operations take place at the oil storage tanks (60-237).
 - Bare soil and dirt roads on the site are potential sources of sediment and erosion.

- **Location of significant spills or leaks.** This is discussed in Section 2.2 of this SWPPP.
- **Location of all stormwater monitoring points.** Stormwater is monitored at Outfall 043.
- **Locations of stormwater inlets and outfalls, with a unique identification code for each outfall.** There is one outfall associated with this facility. It is identified as Outfall 043 and is shown in Appendix B-2.
- **Location of discharge/outfalls to municipal storm sewer systems.** The facility has no connections or outfalls to a sewer system or MS4.
- **Non-stormwater discharges.** No non-stormwater discharges have been identified for the facility. See Non-Stormwater Discharge Certification.
- **Locations of the following activities where such activities are exposed to precipitation:**
 - **Fueling stations** – none at the facility. Asphalt emulsion oil, heating coil oil and propane is delivered via trucks.
 - **Vehicle and equipment maintenance and/or cleaning areas** – none at the facility.
 - **Loading/Unloading areas.** Asphalt is dropped from the batch tower (Structure 60-236) into trucks parked directly below the tower. Aggregate is loaded into the hopper/feeder unit (Structure 60-234) by a front end loader.
 - **Liquid storage tanks.** There are 3 liquid storage tanks: 16,000 gallon propane tank that is empty and has been removed; 15,000 gallon and 115 gallon tanks for asphalt emulsion oil.
 - **Processing and storage areas.** Processing takes place within the BDM Asphalt Plant and two storage transportainers are located on the east side of the site. Aggregate storage is outdoors in multiple piles.
 - **Immediate access roads.** Sigma Mesa road (an extension of Eniwetok Road) is used by trucks and other vehicles accessing the site. Asphalt is picked up at the site by trucks and then transported to off-site locations.
 - **Transfer areas for substances in bulk.** See processing and storage areas above.
 - **Machinery.** Asphalt Plant – BDM TM2000 Model.
- **Locations and sources of run-on to site.** Sigma Mesa road is a paved road and run-on from this location is possible. This location on Sigma Mesa is considered to have a low erosion potential and low potential impact to receiving waters.

1.6 Outfalls

Outfall 043: Outlet to Parshall flume of monitored Outfall 043 is located at the east end of the retention pond. Stormwater throughout the site flows primarily southeast to the retention pond and due south from the east drainage ditch. Any overflow from the pond

is directed out of the flume to the east and then flows southeast towards Mortandad Canyon. No storm water is discharged to Tier 2, 2.5, or 3 waters.

Significantly Identical Outfalls (SIO)

There is only one outfall for this facility as listed above (Outfall 043). Monitoring requirements are discussed in Section 4.6.3 of this SWPPP.

SECTION 2: POTENTIAL POLLUTANT SOURCES

2.1 Potential Pollutants Associated with Industrial Activity

The following activities at the TA-60 ABP are potential pollutant sources to stormwater discharges; these sources and their potential pollutants are described below.

- Material loading and unloading operations
- Outdoor storage of material
- Waste handling and storage activities
- Earth/soil moving

Material loading/unloading operations: Material loading and unloading routinely occurs at the oil storage tanks (Structure 60-237), the hopper/feeder unit (Structure 60-233), the ZEP tank, and the batch tower (Structure 60-236).

- Asphalt emulsion oil and heating oil are delivered to the two oil storage tanks (15,000 gallon and 115 gallon) by tanker trucks and the oil product is pumped directly into the tanks. Oil in the 15,000 gallon tank is consumed during asphalt batch processing and the tank is refilled as needed throughout the year.
- The heating oil in the 115 gallon tank is non-destructively used. Potential sources of exposure from this operation include spills from the tanker truck, leaks from hose or valve connections, overfilling/overflow of product, and draining of hose lines after refilling; the potential pollutants of concern are asphalt emulsion oil and heating coil oil.
- Liquid propane is no longer delivered to the above-ground tank by tanker trucks. In 2013 a natural gas line was run down to the Asphalt Batch Plant and in 2014 process heating at the site began using natural gas. The liquid propane tank was removed during the summer of 2015.
- Front-end loaders are used to load and unload aggregate material from stockpiles to the batch plant's hopper/feeder unit (Structure 60-234). The pollutant of concern from this operation is the generation of dust during the unloading activities at the hopper/feeder bin. Overflow or spillage of the aggregate material is not considered a pollutant source since the material is generally picked up and re-fed into the process; the gravel material is not a significant

source of sediment or pollutants. Another potential pollutant of concern from this equipment is hydraulic fluids and diesel fuel should the equipment leak.

- Loading of asphalt takes place at the batch tower drop location (Structure 60-236) where processed asphalt is dropped into trucks for delivery to a job site. Sources of pollutants from operation are the overflow or spillage of processed asphalt including waste aggregate, tar slag and asphalt chunks; the material is semi-solid in form and after cooling becomes solid with no tendency to percolate. These wastes are scooped up and placed into a New Mexico Special Waste area offsite by Waste Management Coordinators. P 409 and an MSDS for ZEP *Asphalt Release Agent R-6690* can be found in the Referenced Documents.

Outdoor storage of material: Outdoor storage of materials includes two oil storage tanks and one propane tank (empty) and removed in 2015.

- Asphalt oil is stored in the 15,000 gallon tank (Structure 60-237) and heating coil oil is stored in an attached 115 gallon tank. The oil tanks are co-located in a concrete spill containment basin providing secondary containment. Potential sources of exposure from this location include spills and leaks from the oil tanks and associated piping that may leak into or overflow the containment basin; which could also potentially contaminate stormwater runoff in the area. The potential pollutants of concern are asphalt emulsion oil and heating coil oil.

Waste handling: Small amounts of waste generated from the truck-loading operations at the batch tower, which includes solid or semi-solid aggregate, tar slag and asphalt chunks, is scooped up and placed into a New Mexico Special Waste area offsite by Waste Management Coordinators. The potential source of exposure from this operation includes a breach of the drum that may release solid or semi solid waste material into the containment basin. The potential pollutant is waste aggregate, tar slag and asphalt chunks. The waste materials are properly characterized and disposed of off-site in accordance with procedure P409, *Waste Management* that can be found in Appendix L. (Referenced Documents)

Asphalt oil and heating oil

- Asphalt emulsion oil is stored in a 15,000 gallon above ground storage tank (Structure 60-237). The asphalt oil is heated and used in the production of the asphalt.
- A second oil storage tank, which is a 115 gallon tank (also Structure 60-237), is attached to the emulsion oil tank and stores heating oil that is used non-destructively for heating.
- The two oil storage tanks are co-located in a concrete spill containment basin, which is estimated at 350 square feet with a 3 inch curb, providing secondary containment for the tank contents. There is a 2-inch drainpipe with a locked valve to provide controlled drainage of the contents.

- Asphalt oil and heating oil are delivered to the facility by an off- site contractor via tanker trucks and pumped directly into the storage tanks.

Waste clean-up

- The process of dropping or transferring material into delivery trucks may result in overflow or spillage of tar slag and asphalt chunks. These waste materials (slag) is scooped up and placed into a New Mexico Special Waste area offsite by Waste Management Coordinators.

Liquid Propane is no longer stored at the site and used for process heating

- In 2013 a natural gas line was run down to the Asphalt Batch Plant and in 2014 process heating at the site began using natural gas. The liquid propane tank was removed during the summer of 2015.

Truck beds are sprayed with ZEP

- Prior to loading asphalt, truck beds are coated with ZEP, which is a non-hazardous, bio-degradable product that minimizes the sticking of asphalt to truck beds. The material is applied by a hand held spraying device to minimize potential release to the environment.

Other operations on site include a trailer used as the control center/office (Structure 60-233) and two portable trailers for storage. There are no buried tanks, piping or transfer stations at the facility.

Solid Waste Management Units (SWMUs)

There is one SWMU located within the TA-60 ABP facility boundary, 60-002. This area was previously used to store about 50 piles of broken cured-asphalt chunks until the material could be recycled. Since the materials have been removed from the site, and the site has since been graded for ABP operations, there is little potential for pollutants to be released from this SWMU into surface water runoff. Inorganic constituents including Aluminum, Arsenic, Barium, Cadmium, Calcium, Chromium, Cobalt, Iron, Magnesium, Nickel, Selenium, Vanadium, Magnesium, Lead, Iron, Copper, and Beryllium are present in the subsurface at depths ranging from 1.5 to 15 feet. Organic constituents including Acetone, Diesel Range Organics, Fluoranthene, Fluorene, Pyrene and Hexanone[2-] are present in the subsurface at depths ranging from 1.5 to 17 feet.

2.2 Spills and Leaks

Areas on site where potential spills/leaks could occur:

Location	Outfalls (See Site Map)
15,000 gallon & 115 gallon oil storage tanks (60-237)	043
Drum of tack oil (located east of 60-237)	043

Past Spills/Leaks

Completed spill reports and spill log can be found in Appendix G of the SWPPP. Spills and leaks that occurred prior to 2014 will be documented in previous SWPPP revisions. Records of spills are also entered into the EPC-CP MSGP CAR database. The information recorded includes the type of material spilled, quantity of spilled material, corrective actions taken, and the location and date of the spill event. This information is maintained for a period of three years from the date the permit expires or the date the permittee's authorization is terminated.

2.3 Non-Stormwater Discharges Documentation

There are no NPDES permitted non-stormwater discharges or unpermitted outfalls associated with the facility. One source of non-stormwater discharges at the facility is allowed under a Notice of Intent (NOI) to discharge from the New Mexico Environmental Department (NMED). Under the NOI residual potable water is allowed to discharge from a hose with a backflow preventer used to fill water trucks on the east side of TA-60 building 250 and potable water is also allowed for dust suppression at the far east end of Sigma Mesa when needed.

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

2.4 Salt Storage

No salt storage or piles containing salt are present at the facility.

2.5 Sampling Data Summary

Sampling of stormwater runoff from the facility is currently performed by the EPC-CP, Water Quality and Stormwater Group. Samples are collected at an automated monitoring station at Outfall 043.

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

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

For 2016 no stormwater discharges occurred at monitored outfall 043. Therefore, no samples were collected and no data is available.

For 2017 samples collected for Impaired Waters did not detect Total Aroclors and Adjusted Gross Alpha and annual monitoring for these constituents was discontinued per Section 6.2.4.1 of the 2015 MSGP. Impaired Waters sampling for 2017 detected Aluminum and Copper, but these constituents did not exceed New Mexico Water Quality Criterion. In 2017 Total Suspended Solids (TSS) exceeded the Effluent Limitations Guidelines daily limit. In 2017 oil and grease exceeded the Effluent Limitations Guidelines 30 day average limit.

SECTION 3: STORMWATER CONTROL MEASURES

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

Standard operating procedures and maintenance procedures at the facility are designed to stabilize exposed areas and contain runoff using structural and/or nonstructural control measures to minimize onsite erosion, sedimentation, and the resulting discharge of pollutants.

3.1 Minimize Exposure

Material loading/unloading operations: The loading and unloading operations at the oil storage tanks (Structure 60-237), the hopper/feeder unit (Structure 60-234), and the batch tower (Structure 60-236) are the most likely areas where potential pollutants may be released and exposed to runoff. BMPs used at these locations include the following:

- Spills from heavy equipment resulting in diesel or hydraulic fluid leaks are addressed in accordance with the *Spill Prevention Control and Countermeasures Plan for the Asphalt Batch Plant*. The plan specifies that the Principal Operator at

the Facility is the designated person responsible for spill prevention, reporting and maintenance of the spill control equipment at the Facility. All spills require response and several facility operations personnel are trained annually to the plan. Any spills that have the potential to enter a water course require immediate response and must be reported immediately to the Security and Emergency Operations (SEO), Emergency Response Group (SEO-1). In addition, appropriate cleanup procedures will be followed and the appropriate individuals or organizations responsible for the completion of appropriated spill reports will be notified.

- Bulk delivery of oil is supervised by the Facility Site Superintendent or other designated personnel.
- Prior to a fuel transfer, supervising personnel verify that the correct product is being delivered to the correct tank and that the volume of material to be transferred does not exceed the available space in the receiving container.
- Lines, hoses, and valve settings are inspected for leaks before and during transfers; dry disconnects or leak pans are used on hoses and connections when practical;
- Any spills or releases during oil loading/unloading operations are immediately responded to in accordance with the SPCC Plan and ENV-DO-QP 101.1, *Environmental Reporting Requirements for Releases or Events*.
- Containment structures are in-place for the above ground oil storage tanks.
- Spill control equipment is available in the Control Room trailer (60-233).
- Overflow of asphalt material (tar slag and asphalt chunks) during loading of delivery trucks is minimized by careful supervision during loading operations. Overflow material is cleaned up as it occurs on site and is scooped up and placed into a New Mexico Special Waste area offsite by Waste Management Coordinators. P 409 for this process is located in the Referenced Documents.
- Loading and unloading areas are kept clean and maintained to minimize collection of dust, debris, and potential pollutants.
- Fluids from unused heavy equipment, vehicles, and other equipment stored onsite for longer than 6 months will be drained.

Outdoor storage of materials: BMPs used to control pollutants from these sources include the following:

- The two oil storage tanks (Structure 60-237) are co-located in a concrete secondary containment unit. The concrete containment unit has a 3-inch curb that has a sufficient volume to contain the 115 gallon tank's contents with ample freeboard for storm flow. The full volume of the 15,000 gallon tank cannot be contained by the basin; however, it was not deemed necessary to provide full containment for this tank since the product will solidify on the surface with little to no soil penetration.
- Secondary containment will be provided for any materials containing liquids and stored on site

- Material or products that are stored in bags, boxes, or other perishable containers will be stored inside or under cover to prevent exposure.
- Whenever practical, materials and activities at the facility are protected to prevent exposure to rain, snow, snowmelt, or runoff.

Waste handling activities: BMPs used to control pollutants from these sources include the following.

- P409, *Waste Management*, specifies methods for handling waste containers to minimize leaks and exposure to stormwater. Inspections are conducted to ensure that procedures are properly followed and that no potential contaminants are present in exposed areas
- Small amounts of waste generated from the truck-loading operations at the batch tower, which includes solid or semi-solid aggregate, tar slag and asphalt chunks, is scooped up and placed into a New Mexico Special Waste area offsite by Waste Management Coordinators.

Earth/soil moving activities: Construction or other activities at the site that disturb more than 1-acre of land will be separately addressed in accordance with the NPDES Construction General Permit (CGP).

3.2 Good Housekeeping

Routine operations at the facility are geared toward keeping the site clean, avoiding spills, and immediately attending to any spilled material according to LANL response guidelines.

Good housekeeping practices used at the facility to prevent stormwater contamination include the following.

- Routine inspections are performed for leaks and to check the condition of the tanks.
- Operational areas are maintained in a clean and orderly state.
- Containers holding raw material or product are kept closed when not in use and containers are not stored in areas that are exposed to precipitation or run-on.
- Containers and materials are properly labeled.
- Stormwater containment structures are kept clean of debris and trash; the drainage ditch and berm around the site are kept clear of debris and trash.
- Access to the facility is controlled by a gate, which is located less than a quarter mile west of the Asphalt Batch Plant on Sigma Mesa Road. The facility is locked when unattended. A sign-in/out procedure is not required at the facility. However, visitors must notify the Facility Operator (upon arrival to the plant) that they are on site to perform specified work or inspections.
- Spills or leaks are cleaned as soon as possible.

- Activities that damage or destroy existing vegetation are kept to a minimum.
- Employees are trained about these and other good housekeeping practices and their impact on stormwater discharge.
- Non-hazardous waste (e.g. trash) generated at the site is collected in a dumpster, which is picked up for disposal when it becomes full.
- No vehicle maintenance or vehicle washing is performed on site.

3.3 Maintenance

Control measures at the facility will be kept in effective operating condition by the implementation of scheduled preventive maintenance, operating procedures, engineering guidance, and manufacturer's specifications as applicable. If control measures need to be replaced or repaired to maintain compliance with the 2015 MSGP, necessary modifications will be made according to the timelines specified in the Corrective Action requirements of Section 5.3 of this SWPPP.

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

3.4 Spill Prevention and Response

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

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

The facility operations shall report all spills or releases. All uncontrollable spills or releases must be reported to the SEO/EM&R Office or Facility Duty Officer by calling 667-6211 or, after hours, at 667-7080. If fire or explosion is present, or if the potential for such exists, the situation must be reported by dialing 911. In the event of a spill, the SEO/EM&R Office will determine appropriate cleanup procedures and will notify the

individuals or organizations responsible for completing spill reports or fulfilling regulatory reporting requirements.

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

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

- ENV-CP-QP-007, Spill Investigations: <http://int.lanl.gov/training/v-courses/41819/41819.pdf>; and
- ENV-DO-QP-101, Environmental Reporting Requirements for Releases or Events: <http://int.lanl.gov/training/env-courses/42415/env-do-qp-101.pdf>

3.5 Erosion and Sediment Controls

Structural controls that have been implemented at the facility are shown on the Site Map in Appendix B (Figure B-2) and include the following:

Stormwater retention pond: A stormwater retention pond, located at the southeast corner of the site, collects and manages stormwater run-off from the facility and provides an opportunity for sediments to settle out in the basin and not be transported off-site. Runoff from across the facility is directed toward the pond, and the water is held in the pond until it is released through the controlled outlet structure, evaporates, or infiltrates into the surrounding soil. In 2015 the fabric liner that was installed in the bottom of the pond and layer of 3/4 inch river rock that was added in 2011 were removed. In order to help increase the holding capacity and retention time of storm water the depth of the pond was also increased by 2 feet.

A Parshall Flume is located at the east side of the retention pond, which is part of stormwater monitored Outfall 043, and serves as the pond’s outlet structure. This structure is used for sampling runoff from the pond and also controls runoff releases from the pond to provide better erosion control at the discharge location. Riprap located

at the flume discharge location further slows down and disperses stormwater overflow from the pond.

Riprap: Riprap material has been placed at the east and west entrances of the stormwater retention pond, reducing erosion potential in these areas and minimizing sediment transport into the pond.

Site grading: The facility grounds have been graded to produce a gentle downward grade toward the south-southeast so that site drainage and stormwater flow is directed towards the stormwater retention pond. Most of the site is stabilized with gravel.

Berms: The site is bounded by base-course and earthen berms, which are installed along the west, south, and east facility boundaries. The berms serve to redirect storm flow and site drainage toward the retention pond, minimizing the sediment transport and runoff from the site. The berms also prevent run-on to the site from adjacent lots that are not part of the facility.

Check Dams: Two rock check dams made of angular rock were installed in 2014 at the west end of the retention pond that receives stormwater runoff to help reduce the sediment load in the stormwater collected in the pond.

Stormwater Conveyance Ditch: An earthen ditch is located along a portion of the site's east boundary to convey storm flow and site drainage to the stormwater retention pond. This ditch works in combination with the base-course berm (also along the eastern boundary) to prevent run-on from the adjacent east lot.

Secondary containment basin: The above-ground oil storage tanks (Structure 60-237) are located in a concrete basin with a 3-inch curb providing containment for potential oil leaks. The concrete basin is equipped with a 2-inch drainpipe and valve to allow drainage of the basin's contents. The valve is kept locked to prevent accidental or unauthorized drainage. While run-on and site drainage into the basin is minimized, precipitation and snowmelt may still accumulate in the basin. Stormwater accumulations are usually small and allowed to evaporate. However, it may occasionally be necessary to drain the basin to ensure sufficient storage capacity in the event of a tank leak or spill. This procedure requires visual inspection of the accumulated material and notification, approvals, and testing by EPC-CP. These structural controls have been selected, designed, and installed to work in-combination to reduce the potential for sediment transport and to manage stormwater runoff and run-on; thereby reducing the potential for pollutants in stormwater discharges.

Procedure number 41-20-001, *Asphalt Plant Operation* includes the regular inspection and maintenance of the facility's equipment, operational systems, and grounds. A copy is included in the Referenced Documents. Facility personnel at the TA-60 ABP conduct informal walk-around inspections daily to check the facility equipment and facility

grounds. During these informal inspections, facility personnel will take note of maintenance needs and appropriate corrective action will be initiated. These routine activities help minimize the chance for failures, shutdowns, or other abnormal conditions that could result in leaks, spills or other releases.

The following items are checked daily during the monthly inspections:

- Ensure that facility grounds are in an orderly condition
- Ensure that stormwater structures are free of debris, floating material or other obstructions
- Identify maintenance needs for equipment or stormwater BMPs
- Identify signs of new erosion
- Identify signs of leaks, spills, or other releases
- If a problem is found that cannot be immediately remedied, the inspection and the response are documented per facility procedures.

The facility's equipment, tanks, transfer piping and associated valves are all located above ground and easily available for inspection during the monthly inspections. Integrity tests and in-service inspections are not required to be performed on the TA-60 ABP oil tanks because they are "Flow-through process tanks" and are exempt per NMED Petroleum Storage Tank (PST) Regulations (Section 20.5.1.7 Definitions); however, observations of the tanks and berms for evidence of leaks or failure conditions are performed during the monthly SPCC and SWPPP inspections.

3.6 Management of Runoff

The facility has a gentle downward grade toward the south-southeast and site drainage and stormwater flow is in that direction. Stormwater flow across the facility is directed towards the stormwater retention pond located at the southeast corner of the facility boundary.

3.7 Salt Storage Piles or Piles Containing Salt

No salt storage or piles containing salt are present at the facility.

3.8 Dust Generation and Vehicle Tracking of Industrial Materials

The area at and surrounding the facility is covered by asphalt and/or gravel. Care should be taken to replenish the gravel layer as it gets thin from heavy equipment traffic. Dust suppression using potable water is performed as needed at this facility.

3.9 MSGP Sector-Specific Non-Numeric Effluent Limits

Part 8 of the 2015 MSGP identifies sector-specific requirements for **Sector D – Asphalt Paving and Roofing Material and Lubricant Manufacturing**. The facility must comply

with requirements associated with the primary industrial activities described in Section 1.3 of this SWPPP and any co-located industrial activities as defined in Appendix A of the 2015 MSGP. The sector specific requirements only apply to those areas of the facility where the sector-specific activities occur.

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

- **Production of asphalt using a “batch” process:** See sections 3.1 - 3.8 for specific controls in these areas.
- **Employee Training:** See section 4.5 for employee training requirements.

3.10 Numeric Effluent Limitations Based on Effluent Limitations Guidelines

The TA-60 Asphalt Batch Plant is classified under **Sector D – Asphalt Paving and Roofing Material and Lubricant Manufacturing** and meets the industrial category requirements for effluent monitoring as listed in Part 2.1.3 (*Table 2-1 Applicable Effluent Limitations Guidelines*) of the 2015 MSGP. Benchmark monitoring is also required once every quarter at the facility.

3.11 Water Quality Based Effluent Limitations and Water Quality Standards

Impaired Receiving Waters/TMDLs

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

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

SECTION 4: SCHEDULES AND PROCEDURES

4.1 Good Housekeeping

See Section 3.2 of this SWPPP.

4.2 Maintenance

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

4.3 Spill Prevention and Response Procedures

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

4.4 Erosion and Sediment Control

See Section 3.5 of this SWPPP.

4.5 Employee Training

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

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

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

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

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

4.6 Stormwater Monitoring

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

Monitoring will be conducted according to test procedures approved under 40 CFR Part 136. Runoff samples 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 to take samples within the first 30 minutes.

4.6.1 Monitoring Schedule

Impaired waters monitoring will be performed on an annual basis with a sample collected in the period between April 1 and November 30. Benchmark monitoring continues on a quarterly basis at least once in each of the following 2-month intervals: April 1 thru May 31; June 1 thru July 31; August 1 thru September 30; and October 1 thru November 30. Quarterly visual inspection/monitoring procedures are described in Section 5.2.

LANL is located in a high elevation, semi-arid climate where the majority of rainfall occurs during a period between July and September. Freezing conditions that would prevent runoff from occurring for extended periods may also occur during the winter

months. For these conditions if benchmark monitoring cannot be performed on the quarterly schedule above, monitoring events will be distributed during seasons when precipitation occurs, or when snowmelt results in a measurable discharge from the site. If adverse weather conditions prevent the collection of samples according to the relevant monitoring schedule, a substitute sample will be collected during the next qualifying storm event or as soon as practical.

4.6.2 Substantially Identical Outfalls

There is only one outfall location for this facility as listed below:

Outfall ID	Outfall Location	Activities/Potential Pollutants	Runoff Coefficient	Control Measures
043	Southeast facility boundary, discharge point of monitoring station flume. (Discharge to: Mortandad Canyon)	Any pollutants discharged from retention pond; asphalt emulsion oil, heating oil, tar, asphalt aggregate residues.	0.65	Retention pond with weir and rock check dams. Crushed rock at discharge point of monitoring station flume, vegetative buffer.

Outfall 043: Outlet to Parshall flume of monitored Outfall 043 is located at the east end of the retention pond. Stormwater throughout the site flows primarily southeast to the retention pond and due south from the east drainage ditch. Any overflow from the pond is directed east and out of the flume and then flows southeast towards Mortandad Canyon.

4.6.3 Monitoring Requirements

Benchmark and impaired waters monitoring will be conducted for this facility as required by the 2015 MSGP. A 2015 MSGP Sampling and Analysis Plan for LANL is provided in Appendix H of this SWPPP. The benchmark and impaired waters monitoring values have been modified to reflect New Mexico facility water quality standards; and are based on values from the *Standards for Interstate and Intrastate Surface Waters (as approved on June 5, 2013), 20.6.4.900 NMAC* as set forth in section 9.6.2.1 of the 2015 MSGP. The TA-60 ABP also meets 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.

Table 3 lists the Summary of Monitoring Requirements and LANL's applicable stormwater monitoring procedures (which also include procedures for gathering storm event data).

Table 3: Summary of Monitoring Requirements

Monitoring Type	Location	Parameters		Schedule
Benchmark	Outfall 043	Total Suspended Solids (TSS)	100 mg/L	Quarterly
Impaired Waters	Outfall 043	Aluminum	1699 ug/L	Annual *Copper parameter based on hardness value of 57 mg/L.
		Gross Alpha, adjusted	15 pCi/L	
		Copper	8 ug/L	
		PCB in Water Column	0.2 ug/L	
Effluent Limitations Guidelines	Outfall 043	Total Suspended Solids (TSS)	23 mg/L Daily Max	Annual
			15 mg/L 30 Day Avg	
		Oil and Grease	15 mg/L Daily Max	
			10 mg/L 30 Day Avg	
		PH	6-9 SU	

Procedures:

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

4.6.4 Monitoring Results

If the average of 4 monitoring values for any parameter exceeds benchmark, or if prior to completion of 4 quarterly samples, an exceedance of the 4 quarter average is mathematically certain, the Pollution Prevention Team and EPC-CP personnel will:

- Review the selection, design, installation, and implementation of control measures to determine if modifications are necessary to meet natural background of benchmark effluent limits,
- Implement the necessary modifications, and
- Continue quarterly monitoring until 4 additional quarters of monitoring have been completed for which the average does not exceed the benchmark.

If the average of the 4 monitoring values for any parameter does not exceed the benchmark, or natural background levels, monitoring for that particular parameter will no longer be performed.

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

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

4.6.5 Recordkeeping

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

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

- The analytical techniques or methods used; and
- The results of such analyses.

For snowmelt monitoring, all information except rainfall event durations, totals, and time since previous event is included. Additionally, 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.

SECTION 5: INSPECTIONS AND CORRECTIVE ACTIONS

5.1 Routine Facility Inspection Procedures

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

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

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

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

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

- Industrial materials, residue or trash that may have or could come into contact with stormwater;
- Leaks or spills from industrial equipment, drums, tanks and other containers;
- Offsite tracking of industrial waste or materials, or sediment where vehicles enter or exit the site;

- Tracking or blowing of raw, final or waste materials from areas of no exposure to exposed areas; and
- Control measures needing maintenance, repairs or replacement.

The Stormwater PPT member performing the inspection will document the inspection and will note potential storm water pollution problems that were encountered on the routine facility inspection form. Any required corrective actions identified during the inspection will be addressed in accordance with Section 5.3 *Corrective Actions Process* of this plan. Facility personnel or the DEP may also perform daily, weekly, or other periodic facility surveys in between monthly routine inspections to further ensure compliance with the SWPPP. The routine inspection form can be found in Appendix F of this SWPPP and meets the requirements listed in the 2015 MSGP (Section 3.1.2.).

5.2 Quarterly Visual Inspection Procedures

Visual inspections are conducted in accordance with ENV-RCRA-QP-064, MSGP Stormwater Visual Inspections: <http://int.lanl.gov/training/env-courses/50493/env-rcra-qp-064.pdf> (document provided in Appendix L).

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

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

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

Exceptions to visual assessments:

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

- Perform one quarterly assessment during snow melt discharge (taken during a measurable discharge from the site).

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

The Stormwater PPT member performing the visual assessment will document potential stormwater pollution problems that were observed during the assessment on the Quarterly Visual Assessment form (Appendix F). Any required corrective actions identified during the assessment will be addressed in accordance with Section 5.3 *Corrective Actions Process* of this plan.

5.3 Corrective Actions Process

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

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

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

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

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

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

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

5.4 Conditions Requiring Review to Determine if Modifications Are Necessary

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

- construction or a change in design, operation, or maintenance at the facility significantly changes the nature of pollutants discharged in stormwater from the facility, or significantly increases the quantity of pollutants discharged; or
- 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.

If a review identifies any necessary modifications, they will be performed following the corrective action process identified in Section 5.3 above.

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

6.1 Documentation Regarding Endangered Species

The Los Alamos National Laboratory (LANL) Threatened and Endangered Species Habitat Management Plan (HMP) was prepared to provide for the protection of federally listed threatened and endangered species and their habitats at LANL. The HMP was designed to be a comprehensive landscape-scale management plan that balances the current operations and future development needs of LANL with the habitat requirements of threatened and endangered species. It also facilitates DOE compliance with the

Endangered Species Act and related federal regulations. The HMP received concurrence from the U.S. Fish and Wildlife Service (USFWS) and was first implemented in 1999. All changes to the HMP, such as adding new species or changing requirements, are assessed in a new consultation with the USFWS before being implemented. The HMP provides guidance by species for different types of activities allowed without further review by the USFWS.

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

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

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

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

6.2 Documentation Regarding Historic Properties

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

- TA-3-22 Power and Steam Plant
- TA-3-38 Metals Fabrication Shop
- TA-3-38 Wood Shop
- TA-3-39 and 102 Metal Shop
- TA-3-66 Sigma Complex
- TA-60 Asphalt Batch Plant
- TA-60-1 Heavy Equipment Yard
- TA-60 Material Recycle Facility
- TA-60 Roads and Grounds
- TA-60-2 Warehouse
- TA-54 Area L
- TA-54 Area G
- TA-54 Maintenance Facility West
- TA-54 RANT

6.3 Documentation Regarding NEPA Review

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

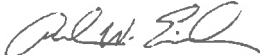
SECTION 7: SWPPP CERTIFICATION

**TA-60 ASPHALT BATCH PLANT
STORMWATER POLLUTION PREVENTION PLANT
Los Alamos National Laboratory**

CERTIFICATION STATEMENT

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

Signature: _____



Digitally signed by Andrew W. Erickson
DN: c=US, o=U.S. Government, ou=Department of
Energy, ou=Los Alamos National Laboratory,
ou=People, serialNumber=141880, cn=Andrew W.
Erickson
Date: 2018.01.25 11:32:02 -07'00'

Date: 1/25/2018

Andrew W. Erickson

Facility Operations Director
Utilities and Institutional Facilities, UI-DO

SECTION 8: SWPPP MODIFICATION

The SWPPP will be modified by the PPT and reviewed by the EPC-CP Technical Advisor(s) whenever necessary to address any of the triggering conditions for corrective actions listed in Section 5.3 of this SWPPP to ensure that they do not reoccur; or to reflect changes implemented when a review following the triggering conditions listed in Section 5.3 of this SWPPP indicates that changes to control measures are necessary to meet the effluent limits described in this SWPPP. Changes to this SWPPP document must be made in accordance with the corrective action deadlines defined in Section 5.3 and must be signed and dated in accordance with the signatory requirements listed in Appendix B Subsection 11 (Signatory Requirements) of the 2015 MSGP. A record of amendments to the SWPPP will be tracked in the amendment log located in Appendix E of this SWPPP.

APPENDIX A

Pollution Prevention Team Members

Stormwater Pollution Prevention Team Members

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

APPENDIX B

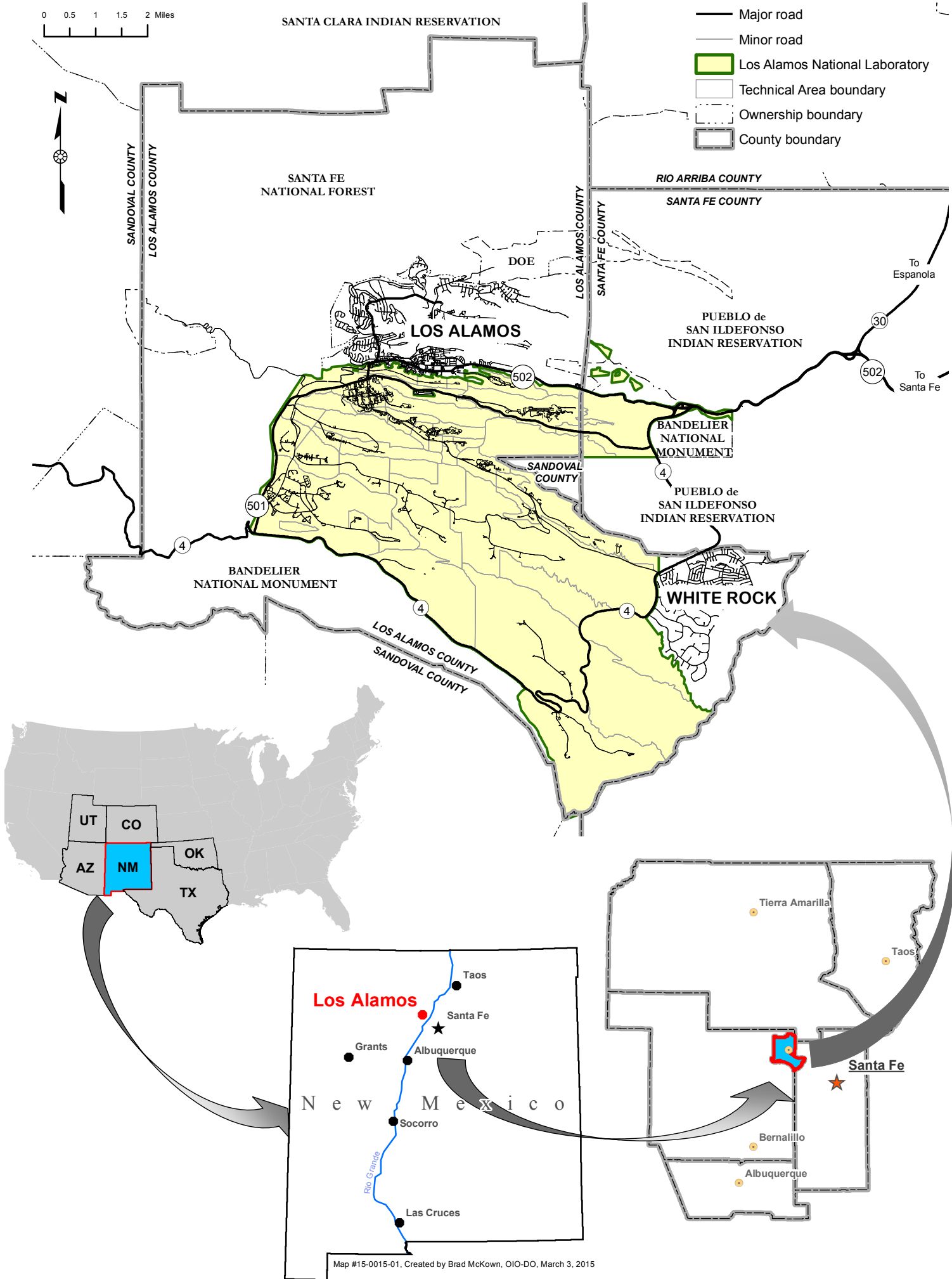
Site Maps

Figure B-1, Regional Location Map

Figure B-2, General Location Map (Includes nearby surface waters and receiving waters)

Figure B-3, Facility Site Map

Figure B-4, Endangered Species Habitat Within LANL



TA-60
ASPHALT BATCH PLANT
FIGURE C2 SITE MAP

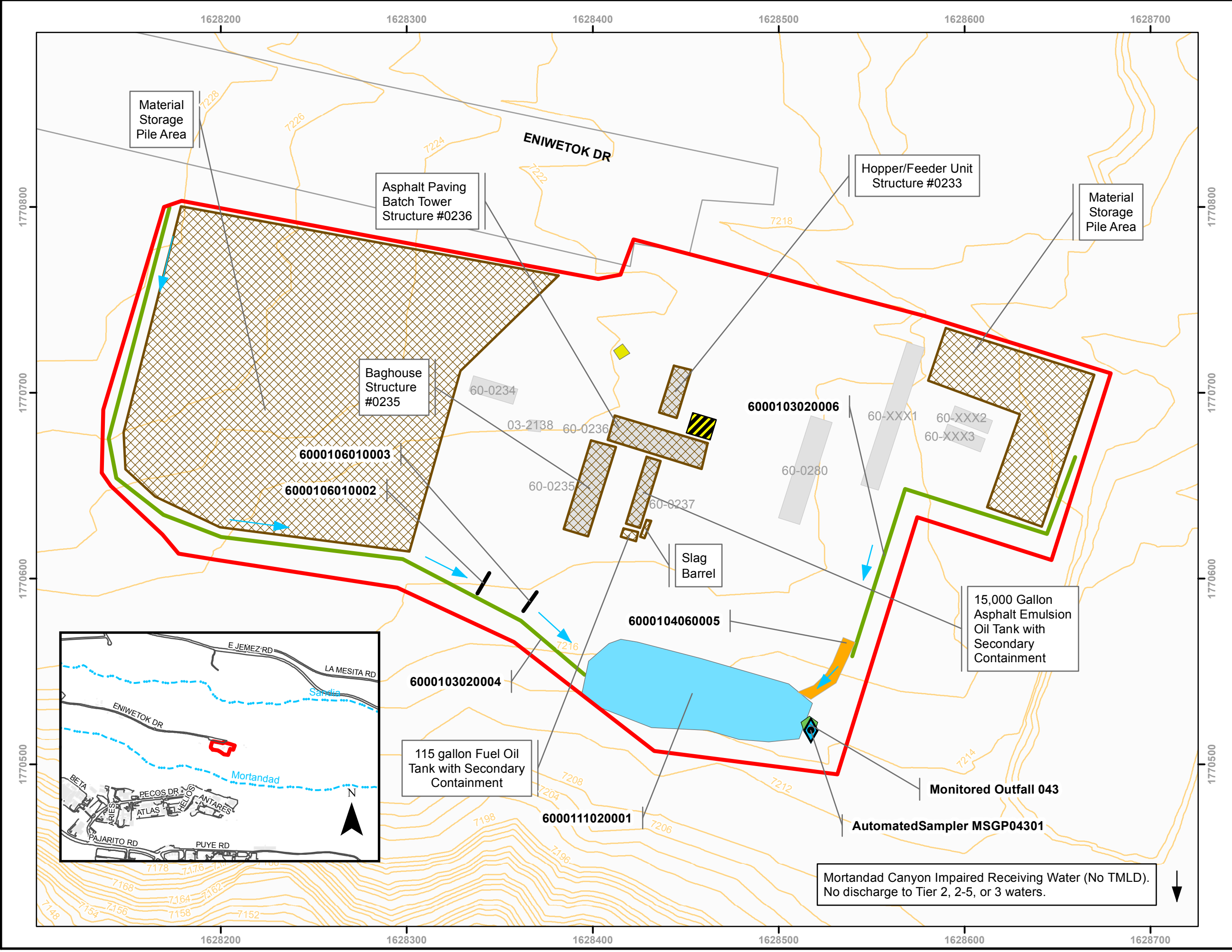
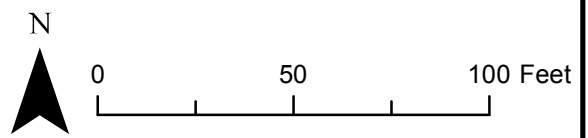
- Automated Sampler
- Monitored Outfall
- Base Course Berm
- Rock Check Dam
- Drainage
- Paved Roads
- 2 ft Contour
- Boundary of Industrial Activity
- Detention Pond
- Rip Rap
- Industrial Activity Areas
- Loading/Unloading Areas
- Dumpster
- LANL Structures
- Paved Parking Lot
- Flow Direction

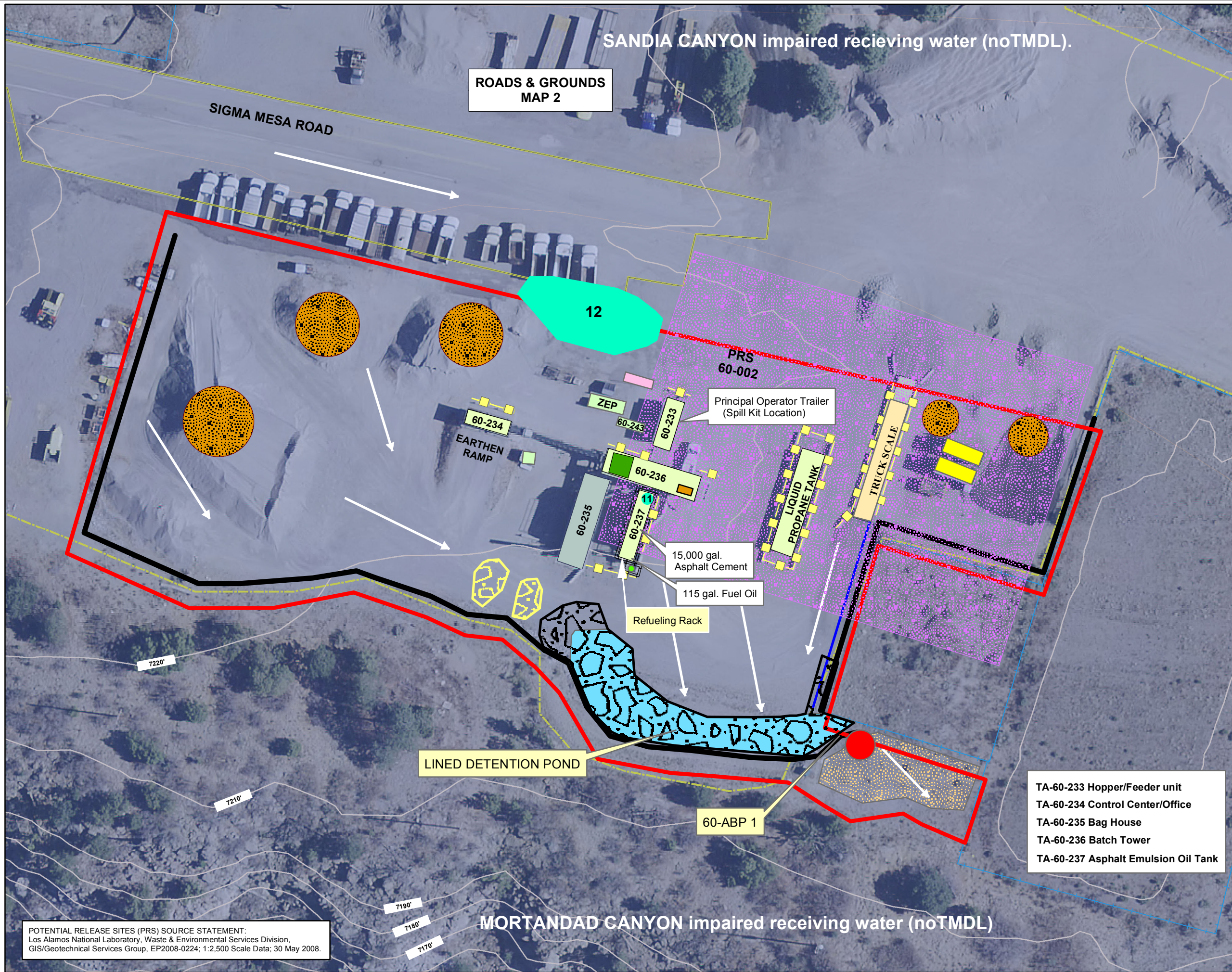
2.3 Acres, 4% Impervious Surface.
Note - No Critical Habitat Areas.

Map number: 16-0015-TA-60 Asphalt Batch Plant
Map created by: Ben Sutter, ADBI-SI-DO
Date: June, 8, 2016
Version 1

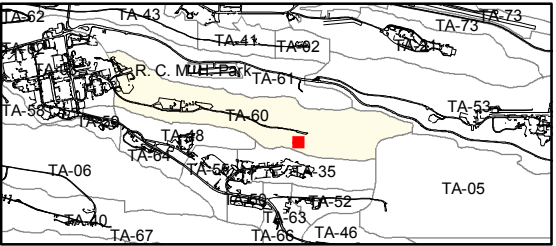
New Mexico State Plane Coordinate System Central Zone (3002)
North American Datum, 1983 (NAD 83)
US Survey Ft

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.








ASPHALT BATCH PLANT
OPERATIONAL SWPPP
2.3 acres, <1% impervious surface
TA-60





LEGEND


 CONSTRUCTION MATERIAL PILE


 SPILL (YEAR)


 MSGP SAMPLER E200.5


 SLAG BARREL


 DRAINAGE PATTERN


 DIRECTION OF FLOW


 BASE COURSE BERM


 BOUNDARY


 PAVED ROADS


 DIRT ROADS


 FENCES


 CONTOUR LINES


 DITCH


 JERSEY BARRIER


 SECONDARY CONTAINMENT


 LOADING AREA


 PRS/SWMU


 CHECK DAM


 RIPRAP


 STORAGE TRAILER

 STRUCTURES


 DUMPSTER

 BASE COURSE

 PROCESSED ASPHALT AREA

 DEVELOPED BUFFER MEXICAN SPOTTED OWL HABITAT

50 25 0 50 Feet

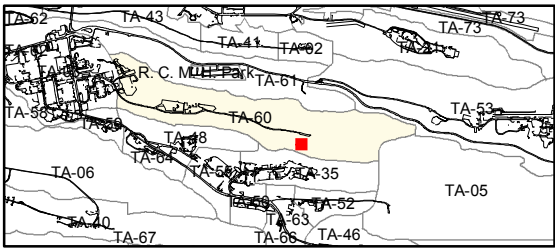


U12031

Classification: U Reviewer: H. Salazar Date: 15-MAR-2012

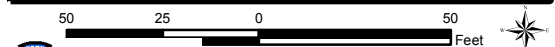
SANDIA CANYON impaired receiving water (noTMDL).
Does not discharge to Tier 2, 2.5, or 3 waters.

**ASPHALT BATCH PLANT
OPERATIONAL SWPPP
2.3 acres, <4% impervious surface
TA-60**



LEGEND

- CONSTRUCTION MATERIAL PILE
- SPILL (YEAR)
- MSGP SAMPLER E200.5
- SLAG BARREL
- DRAINAGE PATTERN
- DIRECTION OF FLOW
- BASE COURSE BERM
- BOUNDARY
- PAVED ROADS
- DIRT ROADS
- FENCES
- CONTOUR LINES
- DITCH
- JERSEY BARRIER
- SECONDARY CONTAINMENT
- LOADING AREA
- PRS/SWMU
- CHECK DAM
- RIPRAP
- STORAGE TRAILER
- STRUCTURES
- DUMPSTER
- BASE COURSE
- PROCESSED ASPHALT AREA
- DEVELOPED BUFFER
- MEXICAN SPOTTED OWL HABITAT



SIGMA MESA ROAD

12

PRS
60-002

Principal Operator Trailer
(Spill Kit Location)

EARTHEN
RAMP

60-234

ZEP

60-243

60-233

60-236

60-235

60-237

15,000 gal.
Asphalt Cement

115 gal. Heating Oil

Refueling Rack

LIQUID
PROPANE TANK

TRUCK SCALE

LINED RETENTION POND

60-ABP 1
ID# 043

Significant Structure

- TA-60-233 Hopper/Feeder unit
- TA-60-234 Control Center/Office
- TA-60-235 Bag House
- TA-60-236 Batch Tower
- TA-60-237 Asphalt Emulsion Oil Tank

MORTANDAD CANYON impaired receiving water (noTMDL)

POTENTIAL RELEASE SITES (PRS) SOURCE STATEMENT:
Los Alamos National Laboratory, Waste & Environmental Services Division,
GIS/Geotechnical Services Group, EP2008-0224; 1:2,500 Scale Data; 30 May 2008.

Endangered Species Habitat Within Los Alamos National Laboratory

SANTA FE NATIONAL FOREST

LOS ALAMOS TOWNSITE

PUEBLO de SAN ILDEFONSO

BANDELIER NATIONAL MONUMENT

PAJARITO ROAD

EAST JEMEZ ROAD

WHITE ROCK

SANTA FE NATIONAL FOREST

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.

Scale

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: OIO-DO-GIS Team

Date: February 21, 2014

Map Document Reference: X:\Projects\14-Projects\14-0020\14-0020

Map Produced by OIO-DO-GIS Team
Date: February 21, 2014,
Map Document Reference: X:\Projects\14-Projects\14-0020\14-0020

APPENDIX C

NOI and LANS Delegation of Authority Letter



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

Date: **OCT 29 2015**
Symbol: ENV-DO-15-0309
LA-UR: 15-28383
Locates Action No.: N/A

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

Dear Mr. Larsen:

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

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

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

- As data was entered into each data field on the NOI form, the Tool was very slow in processing the data and allowing entry into the next field. This created a significant waiting time.
- Upon reaching the fields on the NOI form where outfall attribute data was entered the Tool began to randomly crash, repeatedly deleting all unsaved data.
- Tuesday, September 1, 2015
 - Tool continued to be very slow and randomly crash, repeatedly deleting all unsaved data.
 - For each outfall, when listing the constituents associated with impaired waters, the Tool's auto population feature initially displayed incorrect data which required additional editing and then eventually stopped functioning and caused the Tool to crash.
 - Much of the outfall attribute data had to be reentered multiple times before it was possible to successfully save it to the system.
 - After each save or Tool crash the eReporting Tool would close the NOI form. The time required for the Tool to repeatedly reopen the form made data entry very time consuming.
 - LANS staff contacted the EPA NOI Processing Center on the afternoon of Sept 1 for technical support:
 - NOI Processing Center staff stated that they had been "flooded" with calls over the past week on Tool problems.
 - LANS staff expressed their concern about the length of time being required to enter data and the potential inability to complete the NOI form by the Sept 2 deadline. No solution was available.
 - LANS staff explained the difficulty with entering outfall information for 73 outfalls and NOI Processing Center staff stated that they had received numerous calls on problems with entering outfall data and that some permittees couldn't even enter 20 outfalls.
 - NOI Processing Center staff recommended contacting Regional personnel to notify them of the situation and to seek additional guidance.
 - The eReporting Tool went down at approximately 3:30 pm MDT and remained down until after 9 pm MDT. This eliminated the opportunity to input data during normal business hours.
- Wednesday, September 2, 2015
 - Continued decrease in the performance of the eReporting Tool.
 - Increase in the time for the Tool to process information after entry of each item of data.
 - Increased frequency in the Tool crashing.
 - For each outfall, when listing the constituents associated with impaired waters, the form had to be saved after entry of each individual constituent. Entry of more than one constituent without saving would cause the Tool to crash.

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

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

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

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

Sincerely,



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

ARG:MTS:TWL:HLW/lm

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

From: [Lemke, Terrill W](#)
To: [Wheeler, Holly Lynn](#); [Grieggs, Tony](#)
Subject: FW: EPA Multi-Sector General Permit (MSGP) Authorization is Active – Los Alamos National Laboratory, NPDES ID: NMR053195, NeT Submission ID: MSGP-3095
Date: Monday, October 05, 2015 8:22:15 AM
Attachments: [AcceptedNewNOIReceipt.pdf](#)

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

From: NeT@epa.gov [mailto:NeT@epa.gov]
Sent: Saturday, October 03, 2015 5:48 PM
To: Dorries, Alison Marie
Cc: Lemke, Terrill W; lee.won@epa.gov; lescure.nasrin@epa.gov; emily@avanticorporation.com; farris.erika@epa.gov; Christiane@avanticorporation.com; bius.catherine@epa.gov
Subject: EPA Multi-Sector General Permit (MSGP) Authorization is Active – Los Alamos National Laboratory, NPDES ID: NMR053195, NeT Submission ID: MSGP-3095

2015-10-03

Your Notice of Intent (NOI) requesting coverage for Los Alamos National Laboratory, PO Box 1663 MS K490 Los Alamos NM 87545 under EPA's Multi-Sector General Permit (MSGP) has been accepted and authorization to discharge under the MSGP became effective at the conclusion of your 30-day waiting period, on 2015-10-03.

For tracking purposes, the following NPDES ID has been assigned to your NOI: NMR053195. Attached to this email, you will find a copy of your completed NOI form. To access your NOI in NeT, please visit: https://cdx.epa.gov/epa_home.asp.

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 <http://water.epa.gov/polwaste/npdes/stormwater/EPA-Multi-Sector-General-Permit-MSGP.cfm>). 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. Annual Reports must be submitted to EPA through NeT.

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 <http://www.epa.gov/netdmr/>. 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:

<http://water.epa.gov/polwaste/npdes/stormwater/Stormwater-eNOI-System-for-EPAs-MultiSector-General-Permit.cfm>.

Please note that this email does not represent a determination by EPA regarding the validity of the information you provided in your NOI. Your eligibility for coverage under this permit is based on the validity of the certification you provided. Your electronic signature on the NOI form certifies that you have read, understood, and are implementing all of the applicable requirements. An important aspect of this certification requires that you have correctly determined whether you are eligible for coverage under this permit.

The 2014 MSGP and additional guidance are available at:

<http://water.epa.gov/polwaste/npdes/stormwater/EPA-Multi-Sector-General-Permit-MSGP.cfm>. Please contact your EPA Regional permitting authority at lee.won@epa.gov; lescure.nasrin@epa.gov; emily@avanticorporation.com; farris.erika@epa.gov; Christiane@avanticorporation.com; bius.catherine@epa.gov for more information.

This is an automated response; please do not reply to this email.



2015 NPDES Multi-Sector General Permit For Stormwater Discharges Associated With Industrial Activity (MSGP) Forms

United States Environmental Protection Agency
1200 Pennsylvania Ave, NW Washington, DC 20460

Note: This is a "smart form"; as you fill out the form, additional questions will appear that you will need to answer.

Permit Information

1. What action would you like to take? *

File a New Notice of Intent Form

Submission of this Notice of Intent (NOI) constitutes notice that the operator identified in the Facility Operator Information section of this form requests authorization to discharge pursuant to the NPDES Stormwater Multi-Sector General Permit (MSGP) permit number identified in the Permit Information section of this form. Submission of this NOI also constitutes notice that the operator identified in the Facility Operator Information section of this form meets the eligibility conditions of Part 1.1 of the MSGP for the facility identified in the Facility Information section 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.

Operator Name (Organization Name) *

LOS ALAMOS NATIONAL LABORATORY

Operator Name as Noted by the NOI Preparer

Los Alamos National Security, LLC

2. Select the state/territory where your facility is located *

NM

3. Is your facility located on Indian Country lands? *

☐ Yes

☒ No

4. Are you requesting coverage as a "federal operator" as defined in Appendix A? *

☒ Yes

☐ No

5. Are you a new discharger or a new source as defined in Appendix A? *

☐ Yes ☒ No

5a. Have stormwater discharges from your facility been covered previously under an NPDES permit? *

☒ Yes ☐ No

5aa. Provide your most current NPDES ID (i.e., permit tracking number) if you had coverage under EPA's MSGP 2008 or the NPDES permit number if you had coverage under an EPA individual permit *

NMR05GB21

6. Do you directly 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 3 water (Outstanding Natural Resource Water) (See Appendix L)? Your project will be considered to discharge to a Tier 3 water if the first water of the US to which you discharge is identified by a state, tribe, or EPA as a Tier 3 water. For discharges that enter a storm sewer system prior to discharge, the first water of the US to which you discharge is the waterbody that receives the stormwater discharge from the storm sewer system. *

☐ Yes ☒ No

7. Does your facility directly discharge to a Federal CERCLA site listed in Appendix P? For the purposes of this permit, a permittee discharges to a Federal CERCLA site if the discharge flows directly into the site through its own conveyance, or through a conveyance owned by others, such as a municipal separate storm sewer system. *

☐ Yes ☒ No

8. Has the Stormwater Pollution Prevention Plan (SWPPP) been prepared in advance of filing this NOI, as required? *

☒ Yes ☐ No

9. By indicating "Yes", 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 in Part 1.1.3. Any discharges not expressly authorized under the MSGP are not covered by the MSGP and they cannot become authorized by disclosure to EPA and/or a state via this Notice of Intent to be covered by the permit or by any other means (e.g., in the Stormwater Pollution Prevention Plan or during an inspection). If any discharges requiring NPDES permit coverage other than the allowable stormwater and non-stormwater discharges listed in Parts 1.1.2 and 1.1.3 will be discharged, they must be covered under another NPDES permit. *

☒ Yes ☐ No

10. Master Permit Number

NMR050000

A: Facility Operator Information

1. Operator Name (Organization Name) *

LOS ALAMOS NATIONAL LABORATORY

2. Street *

PO Box 1663

3. Supplemental Address

MS K490

4. City *

Los Alamos

5. State *

NM

6. Zip Code *

87545

7. Facility County or Similar Govt. Subdivision *

Los Alamos

8. Phone (10-digits, No dashes) *

5056671312

9. Extension

10. E-Mail *

hbenson@lanl.gov

Operator point of contact information

11. First Name *

Holly

12. Middle Initial

13. Last Name *

Wheeler

14. Professional Title *

Environmental Professional

B: Facility Information

1. Facility Name *

Los Alamos National Laboratory

☒ Facility address same as facility operator address

2. Street/Location *

PO Box 1663

3. Supplemental Address

MS K490

4. City *

Los Alamos

5. State *

NM

6. Zip Code *

87545

7. Facility County or Similar Govt. Subdivision *

Los Alamos

Latitude/Longitude for the facility:

8. Latitude (Decimal Degrees) *

+

35.872777

9. Longitude (Decimal Degrees) *

-

106.321127

10. Latitude/Longitude Data Source *

Other

11. Horizontal Reference Datum

WGS84

12. What is the ownership type of the facility *

Federal Facility (U.S. Government)

13. Estimated area of industrial activity at your facility exposed to stormwater (to the nearest quarter acre) *

126

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

15. Sector *

SECTOR AA: FABRICATED METAL PRODUCTS

16. Primary SIC Code *

3449: Miscellaneous Metal Work

17. Subsector

AA1: Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services.

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

Sector	Subsector *	
SECTOR P: LAND TRANSPORTATION AND WAREHOUSING	P1: Motor Freight Transportation and Warehousing	Delete Sector
Sector	Subsector *	
SECTOR K: HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL FACILITIES	K1: Hazardous Waste Treatment, Storage, or Disposal Facilities, including those that are operati	Delete Sector
Sector	Subsector *	
SECTOR A: TIMBER PRODUCTS	A4: Wood Products, Not Elsewhere Classified	Delete Sector
Sector	Subsector *	
SECTOR D: ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1: Asphalt Paving and Roofing Materials	Delete Sector
Sector	Subsector *	
SECTOR O: STEAM ELECTRIC GENERATING FACILITIES	O1: Steam Electric Generating Facilities, including coal handling sites	Delete Sector
Sector	Subsector *	
SECTOR F: PRIMARY METALS	F4: Nonferrous Foundries (Castings)	Delete Sector
Sector	Subsector *	
SECTOR N: SCRAP RECYCLING FACILITIES	N2: Source-separated Recycling Facility	Delete Sector
Add Sector		

22. Is your facility presently inactive and unstaffed? *

☐ Yes ☒ No

C: Discharge Information

1. Does your facility discharge into any saltwater receiving waters? *

☐ Yes ☒ No

2. What is the hardness of your receiving water(s) (see Appendix J) *

50-74.99 mg/L

3. Identify if the following Effluent Limitation Guideline(s) apply to any of your discharges

40 CFR Part/Subpart: Part 423	Eligible Discharges: Coal pile runoff at steam electric generating facilities	Affected MSGP Sector: O	New Source Date: 11/19/1982, 10/8/1974 ¹	Does your facility have any discharges subject to this effluent limitation guideline? *
				<input type="radio"/> Yes <input checked="" type="radio"/> No
40 CFR Part/Subpart: Part 429, Subpart I	Eligible Discharges: Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	Affected MSGP Sector: A	New Source Date: 1/26/1981	Does your facility have any discharges subject to this effluent limitation guideline? *
				<input type="radio"/> Yes <input checked="" type="radio"/> No
40 CFR Part/Subpart: Part 443, Subpart A	Eligible Discharges: Runoff from asphalt emulsion facilities	Affected MSGP Sector: D	New Source Date: 7/28/1975	Does your facility have any discharges subject to this effluent limitation guideline? *
				<input checked="" type="radio"/> Yes <input type="radio"/> No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *

002

+

B. Latitude (Decimal Degrees) *

35.875801

-

C. Longitude (Decimal Degrees) *

106.327538

Lookup Receiving Waters Information

(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)

Delete Outfall

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

Outfall Section

1. 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.
(You may edit the name of the water of the U.S. that was returned if incorrect.) *

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *



Yes



No

4. List the pollutants that are causing the impairment:

Pollutant

Aluminum, total [as Al]

Delete Pollutant

Pollutant

Copper, total [as Cu]

Delete Pollutant

Pollutant

Alpha, total

Delete Pollutant

Pollutant

PCB IN WATER COLUMN

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Thallium, total [as Tl]

Delete Pollutant

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐ Yes ☒ No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *

003

+

B. Latitude (Decimal Degrees) *

35.876369

-

C. Longitude (Decimal Degrees) *

106.326492

Lookup Receiving Waters Information

Delete Outfall

(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)

D. Substantially Identical to Any Outfalls Listed Above? *

☒ Yes ☐ No

E. Substantially identical to outfall ID *

002

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

5. Multiple Receiving Waters were returned for your outfall. Please select the receiving water that is associated with your outfall from this list: *

LOS ALAMOS CANYON (DP CANYON TO UPPER LANL BND)

Outfall Section

1. 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. (You may edit the name of the water of the U.S. that was returned if incorrect.) *

LOS ALAMOS CANYON (DP CANYON TO UPPER LANL BND)

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *

☒ Yes ☐ No

4. List the pollutants that are causing the impairment:

Pollutant

Aluminum, total [as Al]

Delete Pollutant

Pollutant

Alpha, total

Delete Pollutant

Pollutant

PCB IN WATER COLUMN

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

MERCURY

Pollutant *

Mercury, total [as Hg]

Delete Pollutant

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐

Yes

☒

No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *

005

+

B. Latitude (Decimal Degrees) *

35.873908

-

C. Longitude (Decimal Degrees) *

106.320709

Lookup Receiving Waters Information

(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)

Delete Outfall

D. Substantially Identical to Any Outfalls Listed Above? *

☐

Yes

☒

No

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

Outfall Section

1. 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.
(You may edit the name of the water of the U.S. that was returned if incorrect.) *

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *

☒

Yes

☐

No

4. List the pollutants that are causing the impairment:

Pollutant

Aluminum, total [as Al]

Delete Pollutant

Pollutant

Copper, total [as Cu]

Delete Pollutant

Pollutant

Alpha, total

Delete Pollutant

Pollutant

PCB IN WATER COLUMN

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Thallium, total [as TI]

Delete Pollutant

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐

Yes

☒

No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *

006

+

B. Latitude (Decimal Degrees) *

35.874002

-

C. Longitude (Decimal Degrees) *

106.319825

Lookup Receiving Waters Information

Delete Outfall

(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)

D. Substantially Identical to Any Outfalls Listed Above? *

☒

Yes

☐

No

E. Substantially identical to outfall ID *

005

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

Outfall Section

1. 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.
(You may edit the name of the water of the U.S. that was returned if incorrect.) *

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *

☒

Yes

☐

No

4. List the pollutants that are causing the impairment:

Pollutant

Aluminum, total [as Al]

Delete Pollutant

Pollutant

Copper, total [as Cu]

Delete Pollutant

Pollutant

Alpha, total

Delete Pollutant

Pollutant

PCB IN WATER COLUMN

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Thallium, total [as Tl]

Delete Pollutant

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐

Yes

☒

No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *

009

+

B. Latitude (Decimal Degrees) *

35.874951

-

C. Longitude (Decimal Degrees) *

106.319263

Lookup Receiving Waters Information

Delete Outfall

(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)

D. Substantially Identical to Any Outfalls Listed Above? *

☐

Yes

☒

No

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

Outfall Section

1. 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.
(You may edit the name of the water of the U.S. that was returned if incorrect.) *

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *

☒ Yes ☐ No

4. List the pollutants that are causing the impairment:

Pollutant

Aluminum, total [as Al]

Delete Pollutant

Pollutant

Copper, total [as Cu]

Delete Pollutant

Pollutant

Alpha, total

Delete Pollutant

Pollutant

PCB IN WATER COLUMN

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Thallium, total [as Tl]

Delete Pollutant

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐ Yes ☒ No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *

007

B. Latitude (Decimal Degrees) *		C. Longitude (Decimal Degrees) *		Lookup Receiving Waters Information <small>(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)</small>	Delete Outfall
+	35.874095	-	106.319009		

D. Substantially Identical to Any Outfalls Listed Above? * E. Substantially identical to outfall ID *

☒ Yes ☐ No

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

Outfall Section

1. 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.
(You may edit the name of the water of the U.S. that was returned if incorrect.) *

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *

☒ Yes ☐ No

4. List the pollutants that are causing the impairment:

Pollutant

Delete Pollutant

Pollutant

Delete Pollutant

Pollutant

Delete Pollutant

Pollutant

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *	Pollutant *	Delete Pollutant
METALS (OTHER THAN MERCURY)	Thallium, total [as Tl]	

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐ Yes ☒ No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *

008

+

B. Latitude (Decimal Degrees) *

35.874306

-

C. Longitude (Decimal Degrees) *

106.318891

Lookup Receiving Waters Information

Delete Outfall

(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)

D. Substantially Identical to Any Outfalls Listed Above? *

☒ Yes ☐ No

E. Substantially identical to outfall ID *

009

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

Outfall Section

1. 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.
(You may edit the name of the water of the U.S. that was returned if incorrect.) *

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *

☒ Yes ☐ No

4. List the pollutants that are causing the impairment:

Pollutant

Aluminum, total [as Al]

Delete Pollutant

Pollutant

Copper, total [as Cu]

Delete Pollutant

Pollutant

Alpha, total

Delete Pollutant

Pollutant

PCB IN WATER COLUMN

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Thallium, total [as TI]

Delete Pollutant

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐

Yes

☒

No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *

010

+

B. Latitude (Decimal Degrees) *

35.874014

-

C. Longitude (Decimal Degrees) *

106.318428

Lookup Receiving Waters Information

Delete Outfall

(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)

D. Substantially Identical to Any Outfalls Listed Above? *

☒

Yes

☐

No

E. Substantially identical to outfall ID *

009

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

Outfall Section

1. 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.
(You may edit the name of the water of the U.S. that was returned if incorrect.) *

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *

☒

Yes

☐

No

4. List the pollutants that are causing the impairment:

Pollutant

Aluminum, total [as Al]

Delete Pollutant

Pollutant

Copper, total [as Cu]

Delete Pollutant

Pollutant

Alpha, total

Delete Pollutant

Pollutant

PCB IN WATER COLUMN

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Thallium, total [as Tl]

Delete Pollutant

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐

Yes

☒

No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *

011

+

B. Latitude (Decimal Degrees) *

35.875560

-

C. Longitude (Decimal Degrees) *

106.320764

Lookup Receiving Waters Information

(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)

Delete Outfall

D. Substantially Identical to Any Outfalls Listed Above? *

☒

Yes

☐

No

E. Substantially identical to outfall ID *

012

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

Outfall Section

1. 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. (You may edit the name of the water of the U.S. that was returned if incorrect.) *

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *

☒

Yes

☐

No

4. List the pollutants that are causing the impairment:

Pollutant

Aluminum, total [as Al]

Delete Pollutant

Pollutant

Copper, total [as Cu]

Delete Pollutant

Pollutant

Alpha, total

Delete Pollutant

Pollutant

PCB IN WATER COLUMN

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Thallium, total [as Tl]

Delete Pollutant

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐ Yes ☒ No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *

012

+

B. Latitude (Decimal Degrees) *

35.875506

-

C. Longitude (Decimal Degrees) *

106.320842

Lookup Receiving Waters Information

Delete Outfall

(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)

D. Substantially Identical to Any Outfalls Listed Above? *

☐ Yes ☒ No

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

Outfall Section

1. 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.
(You may edit the name of the water of the U.S. that was returned if incorrect.) *

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *

☒ Yes ☐ No

4. List the pollutants that are causing the impairment:

Pollutant

Aluminum, total [as Al]

Delete Pollutant

Pollutant

Copper, total [as Cu]

Delete Pollutant

Pollutant

Alpha, total

Delete Pollutant

Pollutant

PCB IN WATER COLUMN

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Thallium, total [as Tl]

Delete Pollutant

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐ Yes ☒ No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *		B. Latitude (Decimal Degrees) *		C. Longitude (Decimal Degrees) *		Lookup Receiving Waters Information <small>(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)</small>	Delete Outfall
004	+	35.871465	-	106.323844			

D. Substantially Identical to Any Outfalls Listed Above? *

☐ Yes ☒ No

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

Outfall Section

1. 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.
(You may edit the name of the water of the U.S. that was returned if incorrect.) *

TWO MILE CANYON (PAJARITO TO HEADWATERS)

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *

☒ Yes ☐ No

4. List the pollutants that are causing the impairment:

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *	Pollutant *	Delete Pollutant
METALS (OTHER THAN MERCURY)	Aluminum, total [as Al]	

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *	Pollutant *	Delete Pollutant
RADIATION	Alpha, total	

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *	Pollutant *	Delete Pollutant
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐ Yes ☒ No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *		B. Latitude (Decimal Degrees) *		C. Longitude (Decimal Degrees) *		Lookup Receiving Waters Information <small>(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)</small>	Delete Outfall
018	+	35.872781	-	106.317616			

D. Substantially Identical to Any Outfalls Listed Above? *

☐ Yes ☒ No

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

Outfall Section

1. 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.
(You may edit the name of the water of the U.S. that was returned if incorrect.) *

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *

☒ Yes ☐ No

4. List the pollutants that are causing the impairment:

Pollutant

Aluminum, total [as Al]

Delete Pollutant

Pollutant

Copper, total [as Cu]

Delete Pollutant

Pollutant

Alpha, total

Delete Pollutant

Pollutant

PCB IN WATER COLUMN

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Thallium, total [as Tl]

Delete Pollutant

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐ Yes ☒ No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *

014

+

B. Latitude (Decimal Degrees) *

35.870641

-

C. Longitude (Decimal Degrees) *

106.316865

Lookup Receiving Waters Information

(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)

Delete Outfall

D. Substantially Identical to Any Outfalls Listed Above? *

☒ Yes ☐ No

E. Substantially identical to outfall ID *

018

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

Outfall Section

1. 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. (You may edit the name of the water of the U.S. that was returned if incorrect.) *

MORTANDAD CANYON (WITHIN LANL)

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *

☒ Yes ☐ No

4. List the pollutants that are causing the impairment:

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Aluminum, total [as Al]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Copper, total [as Cu]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

POLYCHLORINATED BIPHENYLS (PCBS)

Pollutant *

Polychlorinated biphenyls [PCBs]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

RADIATION

Pollutant *

Alpha, total

Delete Pollutant

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐ Yes ☒ No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *

013

+

B. Latitude (Decimal Degrees) *

35.870783

-

C. Longitude (Decimal Degrees) *

106.317349

Lookup Receiving Waters Information

(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)

Delete Outfall

D. Substantially Identical to Any Outfalls Listed Above? *

☒ Yes ☐ No

E. Substantially identical to outfall ID *

018

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

Outfall Section

1. 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. (You may edit the name of the water of the U.S. that was returned if incorrect.) *

MORTANDAD CANYON (WITHIN LANL)

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *

☒ Yes ☐ No

4. List the pollutants that are causing the impairment:

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Aluminum, total [as Al]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Copper, total [as Cu]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

RADIATION

Pollutant *

Alpha, total

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

POLYCHLORINATED BIPHENYLS (PCBS)

Pollutant *

Polychlorinated biphenyls [PCBs]

Delete Pollutant

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐ Yes ☒ No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *

015

+

B. Latitude (Decimal Degrees) *

35.871403

-

C. Longitude (Decimal Degrees) *

106.316276

Lookup Receiving Waters Information

(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)

Delete Outfall

D. Substantially Identical to Any Outfalls Listed Above? *

☒ Yes ☐ No

E. Substantially identical to outfall ID *

018

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

Outfall Section

1. 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. (You may edit the name of the water of the U.S. that was returned if incorrect.) *

MORTANDAD CANYON (WITHIN LANL)

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *

☒ Yes ☐ No

4. List the pollutants that are causing the impairment:

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Aluminum, total [as Al]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Copper, total [as Cu]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

RADIATION

Pollutant *

Alpha, total

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

POLYCHLORINATED BIPHENYLS (PCBS)

Pollutant *

Polychlorinated biphenyls [PCBs]

Delete Pollutant

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐ Yes ☒ No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *

016

+

B. Latitude (Decimal Degrees) *

35.872553

-

C. Longitude (Decimal Degrees) *

106.316810

Lookup Receiving Waters Information

(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)

Delete Outfall

D. Substantially Identical to Any Outfalls Listed Above? *

☒ Yes ☐ No

E. Substantially identical to outfall ID *

018

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

Outfall Section

1. 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. (You may edit the name of the water of the U.S. that was returned if incorrect.) *

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *

☒ Yes ☐ No

4. List the pollutants that are causing the impairment:

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Aluminum, total [as Al]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Copper, total [as Cu]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Thallium, total [as Tl]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

POLYCHLORINATED BIPHENYLS (PCBS)

Pollutant *

Polychlorinated biphenyls [PCBs]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

RADIATION

Pollutant *

Alpha, total

Delete Pollutant

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐ Yes ☒ No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *

017

+

B. Latitude (Decimal Degrees) *

35.872752

-

C. Longitude (Decimal Degrees) *

106.317329

Lookup Receiving Waters Information

Delete Outfall

(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)

D. Substantially Identical to Any Outfalls Listed Above? *

☒ Yes ☐ No

E. Substantially identical to outfall ID *

018

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

Outfall Section

1. 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. (You may edit the name of the water of the U.S. that was returned if incorrect.) *

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *

☒ Yes ☐ No

4. List the pollutants that are causing the impairment:

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Aluminum, total [as Al]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Copper, total [as Cu]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Thallium, total [as Tl]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

POLYCHLORINATED BIPHENYLS (PCBS)

Pollutant *

Polychlorinated biphenyls [PCBs]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

RADIATION

Pollutant *

Alpha, total

Delete Pollutant

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐

Yes

☒

No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *

019

+

B. Latitude (Decimal Degrees) *

35.872668

-

C. Longitude (Decimal Degrees) *

106.318428

Lookup Receiving Waters Information

Delete Outfall

(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)

D. Substantially Identical to Any Outfalls Listed Above? *

☒

Yes

☐

No

E. Substantially identical to outfall ID *

018

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

Outfall Section

1. 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. (You may edit the name of the water of the U.S. that was returned if incorrect.) *

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *

☒

Yes

☐

No

4. List the pollutants that are causing the impairment:

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Aluminum, total [as Al]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Copper, total [as Cu]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

POLYCHLORINATED BIPHENYLS (PCBS)

Pollutant *

Polychlorinated biphenyls [PCBs]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Thallium, total [as Tl]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

RADIATION

Pollutant *

Alpha, total

Delete Pollutant

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐ Yes

☒ No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *

051

+

B. Latitude (Decimal Degrees) *

35.830145

-

C. Longitude (Decimal Degrees) *

106.242675

Lookup Receiving Waters Information

Delete Outfall

(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)

D. Substantially Identical to Any Outfalls Listed Above? *

☐ Yes

☒ No

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

Outfall Section

1. 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.
(You may edit the name of the water of the U.S. that was returned if incorrect.) *

PAJARITO CANYON (IN LANL BELOW ARROYO DE LA DELFE)

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *

☒ Yes

☐ No

4. List the pollutants that are causing the impairment:

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Aluminum, total [as Al]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Copper, total [as Cu]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

POLYCHLORINATED BIPHENYLS (PCBS)

Pollutant *

Polychlorinated biphenyls [PCBs]

Delete Pollutant

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐ Yes ☒ No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *

072

+

B. Latitude (Decimal Degrees) *

35.832885

-

C. Longitude (Decimal Degrees) *

106.239443

Lookup Receiving Waters Information

Delete Outfall

(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)

D. Substantially Identical to Any Outfalls Listed Above? *

☐ Yes ☒ No

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

Outfall Section

1. 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. (You may edit the name of the water of the U.S. that was returned if incorrect.) *

CANADA DEL BUEY (WITHIN LANL)

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *

☒ Yes ☐ No

4. List the pollutants that are causing the impairment:

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Aluminum, total [as Al]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

POLYCHLORINATED BIPHENYLS (PCBS)

Pollutant *

Polychlorinated biphenyls [PCBs]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

RADIATION

Pollutant *

Alpha, total

Delete Pollutant

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐ Yes ☒ No

Outfalls

4. List all of the stormwater outfalls from your facility. Each outfall must be identified by a unique 3-digit ID (e.g., 001, 002) or a 4-digit ID. Also provide the latitude and longitude in decimal degrees for each outfall.

A. Outfall ID *

020

+

B. Latitude (Decimal Degrees) *

35.872251

-

C. Longitude (Decimal Degrees) *

106.316273

Lookup Receiving Waters Information

Delete Outfall

(This button will prepopulate the receiving water information associated with your outfall on your form. You may edit the information that is returned if you believe it is incorrect)

D. Substantially Identical to Any Outfalls Listed Above? *

☐ Yes ☒ No

If for any reason the Lookup Receiving Water Information button does not prepopulate your form with receiving waters information, you must manually enter the information on your form.

Outfall Section

1. 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. (You may edit the name of the water of the U.S. that was returned if incorrect.) *

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

2. Is the receiving water listed as impaired on the 303(d) list and in need of a TMDL? *

☒ Yes ☐ No

4. List the pollutants that are causing the impairment:

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Aluminum, total [as Al]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Copper, total [as Cu]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

METALS (OTHER THAN MERCURY)

Pollutant *

Thallium, total [as Tl]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

POLYCHLORINATED BIPHENYLS (PCBS)

Pollutant *

Polychlorinated biphenyls [PCBs]

Delete Pollutant

Please select the cause group and pollutant for which the waterbody is impaired:

Cause Group *

RADIATION

Pollutant *

Alpha, total

Delete Pollutant

Add Impairment Pollutant Associated with this Waterbody

3. Has a TMDL been completed for this receiving waterbody? *

☐

Yes

☒

No

Add Another Outfall

Provide the following information about your outfall latitude longitude.

5. Latitude/Longitude Data Source *

GPS

6. Horizontal Reference Datum

NAD83

7. Does your facility discharge into a Municipal Separate Storm Sewer System (MS4)? *

☐

Yes

☒

No

8. Do 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) (See Appendix L)? *

☐

Yes

☒

No

D: Stormwater Pollution Prevention Plan (SWPPP) Information

SWPPP Contact Information

1. First Name *

Holly

2. Middle Initial

3. Last Name *

Wheeler

4. Professional Title *

Environmental Professional

5. Phone (10-digits, No dashes) *

5056671312

6. Extension

7. E-Mail *

hbenson@lanl.gov

8. 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 *

epr.lanl.gov

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

E: 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? *

Criterion D – A separate ESA section 7 consultation has been completed

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.

You must attach copies of any letters or other communications with the U.S. Fish and Wildlife Service or National Marine Fisheries Service on the attachments screen after you click "Submit Now"

F: Historic Preservation

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

☒ Yes ☐ No

1a. 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 1.1.4.7 are you eligible for coverage under this permit *

Criterion B - Subsurface stormwater controls will not affect historic properties

Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. 40 CFR 122.22 (d)

Certifier E-Mail *

ADORRIES@LANL.GOV

Form Action *

Approve



Environment Safety & Health

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

Date: MAR 22 2016
Symbol: ADESH-16-045
LA-UR: 16-21721
Locates Action No.: N/A

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

To Whom It May Concern:

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

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

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

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

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

April 1 through May 31

June 1 through July 31

August 1 through September 30

October 1 through November 30

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

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

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

Sincerely,



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

MTB:TWL:HLW/lm

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

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

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

ENCLOSURE 1

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

ADESH-16-045

LA-UR-16-21721

Date: MAR 22 2016



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 Form1. 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:

N a s i m J a h a n

Date approval obtained:

0 2 / 0 9 / 2 0 1 6

* 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-EPA-MultiSector-General-Permit.cfm>

B. Permit Information

NPDES ID (EPA Use Only):

N M R 0 5 3 1 9 5

1. Master Permit Number: N M R 0 5 0 0 0 0

(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:

N M R 0 5 G B 2 1

C. Facility Operator Information

1. Operator Information:

Operator Name: L o s A l a m o s N a t i o n a l S e c u r i t y L L C

Mailing Address:

Street: P O B o x 1 6 6 3

City: L o s A l a m o s State: N M ZIP Code: 8 7 5 4 5 -

County or Similar Government Subdivision: L o s A l a m o s

Phone: 5 0 5 - 6 6 5 - 2 3 9 7 Ext.

E-mail: t l e m k e @ l a n l . g o v

2. Operator Point of Contact Information:

First Name, Middle Initial, Last Name: T e r r i l l W L e m k e

Title: E n v i r o n m e n t a l M a n a g e r

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

First Name, Middle Initial, Last Name: H o l l y L W h e e l e r

Organization: L o s A l a m o s N a t i o n a l S e c u r i t y L L C

Phone: 5 0 5 - 6 6 7 - 1 3 1 2 Ext.

E-mail: h b e n s o n @ l a n l . g o v

D. Facility Information1. Facility Name: L o s A l a m o s N a t i o n a l L a b o r a t o r y

2. Facility Address:

Street/Location: P o B o x 1 6 6 3City: L o s A l a m o s State: N M ZIP Code: 8 7 5 4 5County or Similar Government Subdivision: L o s A l a m o s

3. Latitude/Longitude for the facility:

Latitude: 3 5 8 7 2 7 7 ° N (decimal degrees) Longitude: 1 0 6 3 2 1 2 7 ° 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 844. 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 ☐ NO6. 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
District7. Estimated area of industrial activity at your facility exposed to stormwater: 131.36 (to the nearest quarter acre)

8. Sector-Specific Information

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

Primary SIC Code: 3 4 4 9 OR Primary Activity Code: Sector: A A Subsector: A A 1

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

Sector: P Subsector: P 1 Sector: K Subsector: K 1 Sector: A Subsector: A 4 Sector: D Subsector: D 1Sector: O Subsector: O 1 Sector: F Subsector: F 4 Sector: N Subsector: N 2 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 ☐ NOIf you are a Sector G (Metal Mining) facility, do you have discharges from waste rock and overburden piles? ☐ YES ☐ NOCheck 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 Ore9. 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 Information1. 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	<input type="checkbox"/>
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	<input type="checkbox"/>
Part 423	Coal pile runoff at steam electric generating facilities	O	11/19/1982 10/8/1974 ¹	<input type="checkbox"/>
Part 429, Subpart I	Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	A	1/26/1981	<input type="checkbox"/>
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	<input type="checkbox"/>
Part 443, Subpart A	Runoff from asphalt emulsion facilities	D	7/28/1975	<input checked="" type="checkbox"/>
Part 445, Subparts A & B	Runoff from hazardous waste and non-hazardous waste landfills	K, L	2/2/2000	<input type="checkbox"/>
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	<input type="checkbox"/>

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

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

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

Outfall ID	005	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A
Latitude	35.873919			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.320746			
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID	006	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A
Latitude	35.874011			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.319858			
If substantially identical to other outfall, list identical outfall ID: 005 _____				
Outfall ID	009	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A
Latitude	35.874843			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.319412			
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID	007	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A
Latitude	35.874014			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.319203			
If substantially identical to other outfall, list identical outfall ID: 009 _____				

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

Outfall ID	018	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A
Latitude	35.872834			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.317653			
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID	013	Mortandad Canyon (Within LANL)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A
Latitude	35.870797			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.317867			
If substantially identical to other outfall, list identical outfall ID: 018 _____				
Outfall ID	014	Mortandad Canyon (Within LANL)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A
Latitude	35.870890			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.317393			
If substantially identical to other outfall, list identical outfall ID: 018 _____				
Outfall ID	015	Mortandad Canyon (Within LANL)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A
Latitude	35.871389			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.316397			
If substantially identical to other outfall, list identical outfall ID: 018 _____				

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

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

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

Outfall ID	029	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A
Latitude	35.873969			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.313281			

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

Outfall ID	031	Mortandad Canyon (within LANL)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A
Latitude	35.869227			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.305685			

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

Outfall ID	030	Mortandad Canyon (within LANL)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A
Latitude	35.869325			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.306926			

If substantially identical to other outfall, list identical outfall ID: 031

Outfall ID	032	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A
Latitude	35.870741			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.306812			

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

Outfall ID	033	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A
Latitude	35.870712			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.306443			
If substantially identical to other outfall, list identical outfall ID: 032				
Outfall ID	034	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A
Latitude	35.870603			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.306055			
If substantially identical to other outfall, list identical outfall ID: 032				
Outfall ID	035	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A
Latitude	35.870474			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.305432			
If substantially identical to other outfall, list identical outfall ID: 032				
Outfall ID	036	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A
Latitude	35.867825			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	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A
Latitude	35.867859			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.292992			
If substantially identical to other outfall, list identical outfall ID: 036				
Outfall ID	039	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A
Latitude	35.867826			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.291726			
If substantially identical to other outfall, list identical outfall ID:				
Outfall ID	038	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A
Latitude	35.867855			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.292211			
If substantially identical to other outfall, list identical outfall ID: 039				
Outfall ID	040	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A
Latitude	35.867839			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.291955			
If substantially identical to other outfall, list identical outfall ID: 039				

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

Outfall ID	044	Canada del Buey (within LANL)	Aluminum, total Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A
Latitude	35.845868			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.265279			
If substantially identical to other outfall, list identical outfall ID: 047				
Outfall ID	045	Canada del Buey (within LANL)	Aluminum, total Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A
Latitude	35.845586			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.265214			
If substantially identical to other outfall, list identical outfall ID: 047				
Outfall ID	046	Canada del Buey (within LANL)	Aluminum, total Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A
Latitude	35.845200			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.264844			
If substantially identical to other outfall, list identical outfall ID: 047				
Outfall ID	048	Canada del Buey (within LANL)	Aluminum, total Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A
Latitude	35.844590			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.265044			
If substantially identical to other outfall, list identical outfall ID: 047				

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

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

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

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

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

Outfall ID	068	Pajarito Canyon (within LANL below Arroyo de la Delfe)	Aluminum, total PCBs	TMDL Name and ID: N/A
Latitude	35.830051			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.235103			
If substantially identical to other outfall, list identical outfall ID: <u>069</u>				
Outfall ID	072	Canada del Buey (within LANL)	Aluminum, total Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A
Latitude	35.832885			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.239444			
If substantially identical to other outfall, list identical outfall ID: _____				
Outfall ID	070	Canada del Buey (within LANL)	Aluminum, total Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A
Latitude	35.832404			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.240510			
If substantially identical to other outfall, list identical outfall ID: <u>072</u>				
Outfall ID	071	Canada del Buey (within LANL)	Aluminum, total Gross Alpha, adjusted PCBs	TMDL Name and ID: N/A
Latitude	35.832701			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.240994			
If substantially identical to other outfall, list identical outfall ID: <u>072</u>				

Outfall ID	073	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A
Latitude	35.874819			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.324283			

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

Outfall ID	074	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A
Latitude	35.875034			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.327328			

If substantially identical to other outfall, list identical outfall ID: 073 _____

Outfall ID	075	Sandia Canyon (Sigma Canyon to NPDES outfall 001)	Aluminum, total Copper, dissolved Gross Alpha, adjusted PCBs Thallium, dissolved	TMDL Name and ID: N/A
Latitude	35.871154			Pollutant(s) for which there is a TMDL: N/A
Longitude	-106.312940			

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: _____

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 effects 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:

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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 effects on listed species and critical habitat.

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

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

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

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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: J o h n P M c C a n n

Title: D i v i s i o n L e a d e r

Signature: 

Date: 03 / 22 / 2016

E-mail: j m c c a n n @ i a n i . g o v

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

NPDES Form Date (06/15)

This Form Replaces Form 3510-6 (09/08)

Form Approved OMB No. 2040-0004

Who Must File an NOI Form

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

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

Completing the Form

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

Section A. Approval to Use Paper NOI Form

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

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

Section B. Permit Information

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

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

Section C. Facility Operator Information

Provide the legal name of the person, firm, public organization, or any other entity that operates the facility described in this NOI. An operator of a facility is the legal entity that controls the operation of the facility. Refer to Appendix A of the permit for the definition of "operator". Provide the operator's mailing address, phone number,

and e-mail. Correspondence for the NOI will be sent to this address. Also provide the name and title for the operator point of contact (note that the point of contact name may be the same as the operator name).

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

Section D. Facility Information

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

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

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

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

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

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

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

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

NPDES Form Date (06/15)

This Form Replaces Form 3510-6 (09/08)

Form Approved OMB No. 2040-0004

For Sector S facilities (Air Transportation), indicate whether you anticipate that the entire airport facility will use more than 100,000 gallons of pure glycol in glycol-based deicing fluids and/or 100 tons or more of urea on an average annual basis. If so, additional effluent limits and monitoring conditions apply to your discharge (see Part 8.5 of the permit).

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

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

Section E. Discharge Information

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

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

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

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

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

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

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

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

Section F. Stormwater Pollution Prevention Plan (SWPPP) Information

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

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

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

Section G. Endangered Species Protection

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

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

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

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

Section H. Historic Preservation

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

Instructions for Completing EPA Form 3510-6

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

NPDES Form Date (06/15)

This Form Replaces Form 3510-6 (09/08)

Form Approved OMB No. 2040-0004

Section I. Certification

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

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

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

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

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

Modifying Your NOI

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

Paperwork Reduction Act Notice

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

Submitting Your Form

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

For Regular U.S. Mail Delivery:

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

For Overnight/Express Mail Delivery:

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

Visit this website for instructions on how to submit electronically:

<http://water.epa.gov/polwaste/npdes/stormwater/Stormwater-eNOI-System-for-EPA's-MultiSector-General-Permit.cfm>

ENCLOSURE 2

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

ADESH-16-045

LA-UR-16-21721

Date: MAR 22 2016



United States Department of the Interior

FISH AND WILDLIFE SERVICE

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

February 12, 1999

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

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

Dear Mr. Gurule:

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

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

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

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

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

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

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

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

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

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

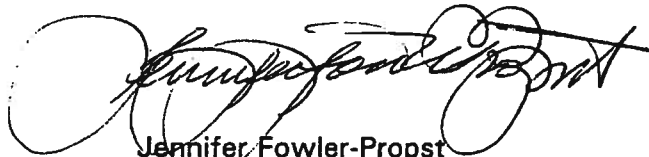
David A. Gurule, Acting Area Manager

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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-l-336. If we can be of further assistance, please contact Carol Torrez of my staff at (505) 346-2525, ext. 115.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jennifer Fowler-Propst', is written over a circular stamp or seal.

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.

Kimberly Davis Lebak, Manager

2

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

Sincerely,

ERIC
HEIN

Digitally signed by Eric Hein
DN: cn=Eric Hein, o=New Mexico Department of Game and Fish,
ou=New Mexico Department of Game and Fish, email=eric.hein@dmr.state.nm.us,
c=US

for Wally Murphy
Field Supervisor

cc:

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

ENCLOSURE 3

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

ADESH-16-045

LA-UR-16-21721

Date: MAR 22 2016



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

Date: **OCT 29 2015**
Symbol: ENV-DO-15-0309
LA-UR: 15-28383
Locates Action No.: N/A

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

Dear Mr. Larsen:

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

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

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

Mr. Brent Larsen
ENV-DO-15-0309

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- As data was entered into each data field on the NOI form, the Tool was very slow in processing the data and allowing entry into the next field. This created a significant waiting time.
- Upon reaching the fields on the NOI form where outfall attribute data was entered the Tool began to randomly crash, repeatedly deleting all unsaved data.
- Tuesday, September 1, 2015
 - Tool continued to be very slow and randomly crash, repeatedly deleting all unsaved data.
 - For each outfall, when listing the constituents associated with impaired waters, the Tool's auto population feature initially displayed incorrect data which required additional editing and then eventually stopped functioning and caused the Tool to crash.
 - Much of the outfall attribute data had to be reentered multiple times before it was possible to successfully save it to the system.
 - After each save or Tool crash the eReporting Tool would close the NOI form. The time required for the Tool to repeatedly reopen the form made data entry very time consuming.
 - LANS staff contacted the EPA NOI Processing Center on the afternoon of Sept 1 for technical support:
 - NOI Processing Center staff stated that they had been "flooded" with calls over the past week on Tool problems.
 - LANS staff expressed their concern about the length of time being required to enter data and the potential inability to complete the NOI form by the Sept 2 deadline. No solution was available.
 - LANS staff explained the difficulty with entering outfall information for 73 outfalls and NOI Processing Center staff stated that they had received numerous calls on problems with entering outfall data and that some permittees couldn't even enter 20 outfalls.
 - NOI Processing Center staff recommended contacting Regional personnel to notify them of the situation and to seek additional guidance.
 - The eReporting Tool went down at approximately 3:30 pm MDT and remained down until after 9 pm MDT. This eliminated the opportunity to input data during normal business hours.
- Wednesday, September 2, 2015
 - Continued decrease in the performance of the eReporting Tool.
 - Increase in the time for the Tool to process information after entry of each item of data.
 - Increased frequency in the Tool crashing.
 - For each outfall, when listing the constituents associated with impaired waters, the form had to be saved after entry of each individual constituent. Entry of more than one constituent without saving would cause the Tool to crash.

Mr. Brent Larsen
ENV-DO-15-0309

- 3 -

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

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

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

Mr. Brent Larsen
ENV-DO-15-0309

- 4 -

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

Sincerely,



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

ARG:MTS:TWL:HLW/lm

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

ENCLOSURE 4

Industrial Sites and Outfalls by Sector

ADESH-16-045

LA-UR-16-21721

Date: MAR 22 2016

Industrial Sites and Outfalls by Sector

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

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

N/A = Not Applicable


APPENDIX D

Non Storm Water Discharge Certification

NON-STORMWATER DISCHARGE ASSESSMENT AND CERTIFICATION					Completed by: <u>Leonard F. Sandoval</u> Title: <u>Deployed Environmental Professional</u> Date: <u>8/5/2015</u>	
Date of Evaluation	Outfall Directly Observed During the Test (Location)	Identify Potential Significant Sources of Non- Stormwater	Method Used to Test or Evaluate Discharge	Is Non-Storm Water Present?	How Often?	Describe Results from Test for the Presence of Non-Storm Water Discharge
8/5/2015	Outfall 60-ABP-1 ID # 043	None	Visual evaluation of outfall at retention pond	No	NA	None

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

Name & Title: DSESH - UT E&M Manager Russell Stone

Signature:  Date Signed: 8/24/2015

APPENDIX E

SWPPP Amendment Log

SWPPP AMENDMENT TRACKING LOG

[illegible]

APPENDIX F

Facility Inspections

Routine Facility Inspection Reports

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	Insert Name		
NPDES Tracking No.	Insert Tracking No.		
Date of Inspection	Insert Date	Start/End Time	Insert Start/End Time
Inspector's Name(s)	Insert Name		
Inspector's Title(s)	Insert Title		
Inspector's Contact Information	Insert Contact Info		
Inspector's Qualifications	Insert qualifications or add reference to the SWPPP		
Weather Information			
Weather at time of this inspection? <input type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snow <input type="checkbox"/> High Winds <input type="checkbox"/> Other: _____ Temperature: _____			
Have any previously unidentified discharges of pollutants occurred since the last inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: Describe			
Are there any discharges occurring at the time of inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: Describe			

Control Measures

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

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
1	Insert Control Measure Name	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	Describe Corrective Actions
2	Insert Control Measure Name	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	Describe Corrective Actions
3	Insert Control Measure Name	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	Describe Corrective Actions
4	Insert Control Measure Name	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	Describe Corrective Actions
5	Insert Control Measure Name	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	Describe Corrective Actions
6	Insert Control Measure Name	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	Describe Corrective Actions
7	Insert Control Measure	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair	Describe Corrective Actions

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
	Name		<input type="checkbox"/> Replacement	
8	Insert Control Measure Name	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	Describe Corrective Actions
9	Insert Control Measure Name	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	Describe Corrective Actions
10	Insert Control Measure Name	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	Describe Corrective Actions

Areas of Industrial Materials or Activities exposed to stormwater

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

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

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
12	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	Describe Corrective Actions

Non-Compliance

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

[Describe Non-compliance](#)

Additional Control Measures

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

[Describe Additional Controls Needed](#)

Notes

Use this space for any additional notes or observations from the inspection:

[Additional Notes](#)

CERTIFICATION STATEMENT

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

Print name and title: _____

Signature: _____ **Date:** _____

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	TA-60 Asphalt Batch Plant		
NPDES Tracking No.	NMR05000		
Date of Inspection	10/19/2015	Start/End Time	8:25 a.m. to 8:46 a.m.
Inspector's Name(s)	Leonard F. Sandoval		
Inspector's Title(s)	Deployed Environmental Professional		
Inspector's Contact Information	667-3557 or 231-1235		
Inspector's Qualifications	CISEC		
Weather Information			
Weather at time of this inspection? <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snow <input type="checkbox"/> High Winds <input checked="" type="checkbox"/> Other: Wind less than 5 mph Temperature: 49°F with a high of 65°F 100% chance of precipitation			
Have any previously unidentified discharges of pollutants occurred since the last inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:			
Are there any discharges occurring at the time of inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:			

Control Measures

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

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
1	Retention Pond	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
2	Riprap	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
3	Angular Rock Check Dams	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
4	Secondary Containment Basin	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
5	Dust Control Southeast of Tank	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
6	Base course/ Earthen Berm	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
7	Outfall 60 ABP-1 ID # 43	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair	

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
			<input type="checkbox"/> Replacement	
8		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
9		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
10		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

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

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

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
12	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Non-Compliance

Describe any incidents of non-compliance observed and not described above: *None*

Additional Control Measures

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

Notes

Use this space for any additional notes or observations from the inspection: During this inspection the secondary containment basin & retention pond both had rain water in them with no visible oily sheen.

CERTIFICATION STATEMENT

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

Print name and title: Leonard F. Sandval Deployed Environmental Professional

Signature: Leonard F. Sandval Date: 10/19/2015

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	TA-60 Asphalt Batch Plant		
NPDES Tracking No.	NMR05000		
Date of Inspection	11/13/2015	Start/End Time	9:28 a.m. to 9:50 a.m.
Inspector's Name(s)	Leonard F. Sandoval		
Inspector's Title(s)	Deployed Environmental Professional		
Inspector's Contact Information	667-3557 or 231-1235		
Inspector's Qualifications	CISEC		
Weather Information			
Weather at time of this inspection?			
<input type="checkbox"/> Clear <input checked="" type="checkbox"/> Scattered Clouds <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snow <input type="checkbox"/> High Winds <input checked="" type="checkbox"/> Other: Wind less than 5 mph Temperature: 31°F with a high of 53°F			
Have any previously unidentified discharges of pollutants occurred since the last inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
If yes, describe:			
Are there any discharges occurring at the time of inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
If yes, describe:			

Control Measures

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

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
1	Retention Pond	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
2	Riprap	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
3	Angular Rock Check Dams	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
4	Secondary Containment Basin	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
5	Dust Control Southeast of Tank	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
6	Base course/ Earthen Berm	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
7	Outfall 60 ABP-1 ID # 43	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair	

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
			<input type="checkbox"/> Replacement	
8		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
9		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
10		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

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

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

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
12	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Non-Compliance

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

None

Additional Control Measures

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

None

Notes

Use this space for any additional notes or observations from the inspection: There was rain water in the secondary containment basin & retention pond during this inspection with no visible oily sheen.

CERTIFICATION STATEMENT

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

Print name and title: Leonard F. Sandval Depled Environmental Professional

Signature: Leonard F. Sandval Date: 11/13/2015

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	TA-60 Asphalt Batch Plant		
NPDES Tracking No.	NMR05000		
Date of Inspection	12/3/2015	Start/End Time	10:44 a.m. to 11:05 a.m.
Inspector's Name(s)	Leonard F. Sandoval		
Inspector's Title(s)	Deployed Environmental Professional		
Inspector's Contact Information	667-3557 or 231-1235		
Inspector's Qualifications	CISEC		
Weather Information			
Weather at time of this inspection? <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snow <input type="checkbox"/> High Winds <input checked="" type="checkbox"/> Other: <i>Wind less than 5mph</i> Temperature: <i>27°F with a high of 50°F</i>			
Have any previously unidentified discharges of pollutants occurred since the last inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:			
Are there any discharges occurring at the time of inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:			

Control Measures

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

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
1	Retention Pond	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
2	Riprap	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
3	Angular Rock Check Dams	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
4	Secondary Containment Basin	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
5	Dust Control Southeast of Tank	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
6	Base course/ Earthen Berm	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
7	Outfall 60 ABP-1 ID # 43	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair	

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
			<input type="checkbox"/> Replacement	
8		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
9		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
10		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

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

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

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
12	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Non-Compliance

Describe any incidents of non-compliance observed and not described above: *None*

Additional Control Measures

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

Notes

Use this space for any additional notes or observations from the inspection:

None

CERTIFICATION STATEMENT

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

Print name and title: Leonard F. Sandakal Deployed Environmental Professional

Signature: Leonard F. Sandakal Date: 12/3/2015

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	TA-60 Asphalt Batch Plant		
NPDES Tracking No.	NMR03195		
Date of Inspection	1/21/2016	Start/End Time	8:32 a.m. to 8:55 a.m.
Inspector's Name(s)	Leonard F. Sandoval		
Inspector's Title(s)	Deployed Environmental Professional		
Inspector's Contact Information	667-3557 or 231-1235		
Inspector's Qualifications	CISEC		
Weather Information			
Weather at time of this inspection? <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snow <input type="checkbox"/> High Winds <input checked="" type="checkbox"/> Other: <u>No Wind</u> Temperature: <u>24°F with a high of 39°F</u>			
Have any previously unidentified discharges of pollutants occurred since the last inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:			
Are there any discharges occurring at the time of inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:			

Control Measures

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

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
1	Retention Pond	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
2	Riprap	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
3	Angular Rock Check Dams	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
4	Secondary Containment Basin	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
5	Dust Control Southeast of Tank	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
6	Base course/ Earthen Berm	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
7	Outfall 60 ABP-1 ID # 43	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair	

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
			<input type="checkbox"/> Replacement	
8		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
9		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
10		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

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

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

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
12	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Non-Compliance

Describe any incidents of non-compliance observed and not described above: *None*

Additional Control Measures

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

Notes

Use this space for any additional notes or observations from the inspection:

With frozen snow.

Majority of site covered

CERTIFICATION STATEMENT

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

Print name and title: Leonard F. Sandakal Deployed Environmental Professional

Signature: Leonard F. Sandakal

Date: 1/21/2016

Russell Stone DESN-UTS GL

Russell Stone 2/2/2016

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	TA-60 Asphalt Batch Plant		
NPDES Tracking No.	NMR03195		
Date of Inspection	2/8/2016	Start/End Time	9:19 a.m. to 9:40 a.m.
Inspector's Name(s)	Leonard F. Sandoval		
Inspector's Title(s)	Deployed Environmental Professional		
Inspector's Contact Information	667-3557 or 231-1235		
Inspector's Qualifications	CISEC		
Weather Information			
Weather at time of this inspection?			
<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snow <input type="checkbox"/> High Winds <input checked="" type="checkbox"/> Other: Wind less than 5mph Temperature: 27°F with a high of 37°F			
Have any previously unidentified discharges of pollutants occurred since the last inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
If yes, describe:			
Are there any discharges occurring at the time of inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
If yes, describe:			

Control Measures

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

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
1	Retention Pond	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
2	Riprap	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
3	Angular Rock Check Dams	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
4	Secondary Containment Basin	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
5	Dust Control Southeast of Tank	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
6	Base course/ Earthen Berm	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
7	Outfall 60 ABP-1 ID # 43	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair	

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
			<input type="checkbox"/> Replacement	
8		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
9		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
10		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

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

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

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
12	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Non-Compliance

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

Additional Control Measures

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

Notes

Use this space for any additional notes or observations from the inspection:

BMP covered with frozen snow.

Majority of stormwater

CERTIFICATION STATEMENT

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

Print name and title:

Russell Stone

US EPA Manager

Signature:

Russell Stone

Date:

2/8/2016

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	TA-60 Asphalt Batch Plant		
NPDES Tracking No.	NMR03195		
Date of Inspection	3/7/2016	Start/End Time	10:09 a.m. to 10:30 a.m.
Inspector's Name(s)	Leonard F. Sandoval		
Inspector's Title(s)	Deployed Environmental Professional		
Inspector's Contact Information	667-3557 or 231-1235		
Inspector's Qualifications	CISEC		
Weather Information			
Weather at time of this inspection? <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snow <input type="checkbox"/> High Winds <input checked="" type="checkbox"/> Other: <i>Wind 10 to 15 mph</i> Temperature: <i>35°F with a high of 54°F</i>			
Have any previously unidentified discharges of pollutants occurred since the last inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:			
Are there any discharges occurring at the time of inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:			

Control Measures

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

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
1	Retention Pond	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
2	Riprap	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
3	Angular Rock Check Dams	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
4	Secondary Containment Basin	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
5	Dust Control Southeast of Tank	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
6	Base course/ Earthen Berm	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
7	Outfall 60 ABP-1 ID # 43	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair	

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
			<input type="checkbox"/> Replacement	
8		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
9		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
10		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

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

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

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
12	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Non-Compliance

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

None

Additional Control Measures

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

None

Notes

Use this space for any additional notes or observations from the inspection:

None

CERTIFICATION STATEMENT

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

Print name and title:

Russell Stone

DSSH5-UIS Group Leader

Signature:

Russell Stone

Date:

3/8/2024

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	TA-60 Asphalt Batch Plant		
NPDES Tracking No.	NMR03195		
Date of Inspection	4/11/2016	Start/End Time	10:41 a.m. to 11:06 a.m.
Inspector's Name(s)	Leonard F. Sandoval		
Inspector's Title(s)	Deployed Environmental Professional		
Inspector's Contact Information	667-3557 or 231-1235		
Inspector's Qualifications	CISEC		
Weather Information			
Weather at time of this inspection? <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snow <input type="checkbox"/> High Winds <input checked="" type="checkbox"/> Other: <i>Light breeze</i> Temperature: <i>41°F with a high of 57°F</i> <i>50% Chance of precipitation</i>			
Have any previously unidentified discharges of pollutants occurred since the last inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:			
Are there any discharges occurring at the time of inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:			

Control Measures

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

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
1	Retention Pond	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
2	Riprap	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
3	Angular Rock Check Dams	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
4	Secondary Containment Basin	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
5	Dust Control Southeast of Tank	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
6	Base course/ Earthen Berm	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
7	Outfall 60 ABP-1 ID # 43	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair	

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
			<input type="checkbox"/> Replacement	
8		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
9		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
10		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

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

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

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
12	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Non-Compliance

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

Additional Control Measures

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

Notes

Use this space for any additional notes or observations from the inspection:

Recent rain over the weekend with no stormwater accumulation in either the retention pond or secondary containment basin.

CERTIFICATION STATEMENT

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

Print name and title: Russell Stone DESHS-UTS GL

Signature: Russell Stone Date: 4/12/2016

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	TA-60 Asphalt Batch Plant		
NPDES Tracking No.	NMR03195		
Date of Inspection	5/11/2016	Start/End Time	1:30 p.m. to 2:07 p.m.
Inspector's Name(s)	Leonard F. Sandoval		
Inspector's Title(s)	Deployed Environmental Professional		
Inspector's Contact Information	667-3557 or 231-1235		
Inspector's Qualifications	CISEC		
Weather Information			
Weather at time of this inspection? <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Partly Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snow <input type="checkbox"/> High Winds <input checked="" type="checkbox"/> Other: <u>Wind less than 10 mph</u> Temperature: <u>72°F</u>			
Have any previously unidentified discharges of pollutants occurred since the last inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:			
Are there any discharges occurring at the time of inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:			

Control Measures

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

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
1	Retention Pond	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
2	Riprap	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
3	Angular Rock Check Dams	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
4	Secondary Containment Basin	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
5	Dust Control Southeast of Tank	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
6	Base course/ Earthen Berm	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
7	Outfall 60 ABP-1 ID # 43	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair	

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
			<input type="checkbox"/> Replacement	
8		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
9		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
10		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

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

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

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
12	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Non-Compliance

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

None

Additional Control Measures

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

None

Notes


Use this space for any additional notes or observations from the inspection:

None

CERTIFICATION STATEMENT

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

Print name and title: Russell Stone, Group Leader DSSH-UTS

Signature:  Date: 5/11/2016

Stormwater Industrial Routine Facility Inspection Report

[illegible]

Control Measures

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

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
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2	Riprap	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
3	Angular Rock Check Dams	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
4	Secondary Containment Basin	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
5	Dust Control Southeast of Tank	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
6	Base course/ Earthen Berm	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
7	Outfall 60 ABP-1 ID # 43	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair	

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
			<input type="checkbox"/> Replacement	
8		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
9		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
10		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

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2	Equipment operations and maintenance areas	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
3	Fueling areas	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	Outdoor vehicle and equipment washing areas	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	Waste handling and disposal areas	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	Erodible areas/construction	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	Non-stormwater/ illicit connections	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	Salt storage piles or pile containing salt	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
9	Dust generation and vehicle tracking	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
10	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
11	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
12	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Non-Compliance

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

Additional Control Measures

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

Notes

Use this space for any additional notes or observations from the inspection:

During the inspection the pipefitters were working on getting a new pump installed for the 115 gallon heating oil tank.

CERTIFICATION STATEMENT

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

Print name and title: Russell Stone GC DSHS-UTS

Signature: Russell Stone Date: 6/15/2016

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	TA-60 Asphalt Batch Plant		
NPDES Tracking No.	NMR03195		
Date of Inspection	7/5/2016	Start/End Time	9:42 a.m. to 10:25 a.m.
Inspector's Name(s)	Leonard F. Sandoval		
Inspector's Title(s)	Deployed Environmental Professional		
Inspector's Contact Information	667-3557 or 231-1235		
Inspector's Qualifications	CISEC		
Weather Information			
Weather at time of this inspection? <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snow <input type="checkbox"/> High Winds <input checked="" type="checkbox"/> Other: <i>Wind less than 5 mph</i> Temperature: <i>68°F with a high of 88°F</i> <i>20% Chance of precipitation</i>			
Have any previously unidentified discharges of pollutants occurred since the last inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:			
Are there any discharges occurring at the time of inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:			

Control Measures

- Number the structural stormwater control measures identified in your SWPPP on your site map and list them below (add as many control measures as are implemented on-site). Carry a copy of the numbered site map with you during your inspections. This list will ensure that you are inspecting all required control measures at your facility.
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1	Retention Pond	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
2	Riprap	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
3	Angular Rock Check Dams	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
4	Secondary Containment Basin	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
5	Dust Control Southeast of Tank	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
6	Base course/ Earthen Berm	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
7	Outfall 60 ABP-1 ID # 43	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair	

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
			<input type="checkbox"/> Replacement	
8		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
9		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
10		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

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

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

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
12	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Non-Compliance

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

Just to the West of the TA-60 Asphalt Batch Plant there's staining on base course from a hydraulic fluid leak. A 5 gallon bucket of contaminated soil was collected as N.M. Special Waste & the affected area was sprayed with micro-blaze. A spill report was filled out and sent to ENV-CP & entered into the MSGP tracking database as CAR# 923.

Additional Control Measures

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

Notes

Use this space for any additional notes or observations from the inspection:

CERTIFICATION STATEMENT

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Print name and title: Russell Stone GL DESHS-UTS

Signature:  Date: 7/11/2016

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	TA-60 Asphalt Batch Plant		
NPDES Tracking No.	NMR03195		
Date of Inspection	8/2/2016	Start/End Time	10:10 a.m. to 10:38 a.m.
Inspector's Name(s)	Leonard F. Sandoval		
Inspector's Title(s)	Deployed Environmental Professional		
Inspector's Contact Information	667-3557 or 231-1235		
Inspector's Qualifications	CISEC		
Weather Information			
Weather at time of this inspection? <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Mostly Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snow <input type="checkbox"/> High Winds <input checked="" type="checkbox"/> Other: <u>No Wind</u> Temperature: <u>59°F With a high of 71°F</u> <u>50% Chance of precipitation</u>			
Have any previously unidentified discharges of pollutants occurred since the last inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:			
Are there any discharges occurring at the time of inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:			

Control Measures

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4	Secondary Containment Basin	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
5	Dust Control Southeast of Tank	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
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7	Outfall 60 ABP-1 ID # 43	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair	

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			<input type="checkbox"/> Replacement	
8		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
9		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
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Areas of Industrial Materials or Activities exposed to stormwater

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	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
12	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Non-Compliance

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

Additional Control Measures

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

Notes

Use this space for any additional notes or observations from the inspection:

The retention pond has
vain water & has an increased retention time which is allowing
sediment to settle. The concrete secondary containment also has
vain water with no visible oily sheen.

CERTIFICATION STATEMENT

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Print name and title: Russell Stone GC DESH-UES

Signature: Russell Stone Date: 8/3/2016

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	TA-60 Asphalt Batch Plant		
NPDES Tracking No.	NMR03195		
Date of Inspection	9/1/2016	Start/End Time	8:15 a.m. to 8:45 a.m.
Inspector's Name(s)	Leonard F. Sandoval		
Inspector's Title(s)	Deployed Environmental Professional		
Inspector's Contact Information	667-3557 or 231-1235		
Inspector's Qualifications	CISEC		
Weather Information			
Weather at time of this inspection? <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Mostly Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snow <input type="checkbox"/> High Winds <input checked="" type="checkbox"/> Other: <i>Wind less than 5mph</i> Temperature: <i>54°F with a high of 74°F</i> <i>20% Chance of precipitation</i>			
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Are there any discharges occurring at the time of inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:			

Control Measures

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

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
1	Retention Pond	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
2	Riprap	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
3	Angular Rock Check Dams	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
4	Secondary Containment Basin	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
5	Dust Control Southeast of Tank	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
6	Base course/ Earthen Berm	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
7	Outfall 60 ABP-1 ID # 43	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair	

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
			<input type="checkbox"/> Replacement	
8		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
9		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
10		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

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

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

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
12	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Non-Compliance

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

Additional Control Measures

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

Notes

Use this space for any additional notes or observations from the inspection:

No storm water in the retention pond & concrete secondary basin. WSST MOV on 8/31/2016 with no health, safety, or environmental issues.




CERTIFICATION STATEMENT

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

Print name and title: Russell Stone, GC DESHS-LIS

Signature: Russell Stone Date: 9/2/2016

Maintenance Details

Requested By: Banar, Alethea on
9/19/2016 10:59:00
AM**Target:** 9/30/2016
Priority/Type: / Routine
Department: Utilities and
Infrastructure MSGP Program
 RG200.5
 TA-60 Asphalt Batch Plant**Taken By:** Banar, Alethea
Procedure: MSGP Stormwater
Industrial Routine
Facility Inspection
(EPC-CP-Form-
1020.1)**Contact:** Banar, Alethea
Phone: 699-5836**Last PM:** N/A
Project: Monthly Routine
Inspections 9-6-16
(P-MSGP-RI-5119)**Reason:** MSGP Routine Facility Inspection at TA-60 Asphalt Batch Plant**Weather at inspection:****Special Instructions:** NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
Weather Information							
20	Describe the weather at time of inspection in the Weather lookup table. If "Other" is chosen, provide description in task comments of this line. Document the temperature (F°) in the "Reading" field of this line.			Clear/Sunny Wind Smp			10:55 a.m. 10/4/2016 Temp @ 60°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:				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	If "Failed" has a CAR been previously initiated for this new discharge? (Range: 0 - 0)				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Is the facility free of discharge of pollutants at the time of inspection? If "Failed" describe: (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "Failed" describe: (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Outfall Inspection needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)							
90	Monitored Outfall [043] Free of Evidence of Erosion? (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100	Monitored Outfall [043] Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110	Monitored Outfall [043] Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Control Measures (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comments).							
130	Rip Rap [6000104060005] Control Measure is operating effectively? (Range: 0 - 0)				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
140					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Rip Rap [6000104060005] If "Failed", is control measure in need of maintenance, Repair, or Replacement?			
150	Detention Pond [6000111020001] Control Measure is operating effectively?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160	Detention Pond [6000111020001] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
170	Rock Check Dam [6000106010002] Control Measure is operating effectively? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Rock Check Dam [6000106010002] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
190	Rock Check Dam [6000106010003] Control Measure is operating effectively? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
200	Rock Check Dam [6000106010003] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
210	Base Course Berm [6000103020004] Control Measure is operating effectively? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
220	Base Course Berm [6000103020004] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
230	Base Course Berm [6000103020006] Control Measure is operating effectively? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
240	Base Course Berm [6000103020006] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Area/Activity exposed to stormwater (identify needed maintenance or a description of corrective actions in relevant task comment).				
260	Material loading/unloading and storage areas inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
270	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
280	Transfer areas for substances in bulk inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
290	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
300	Produce/chemical storage areas (raw material) inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
310	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
320	Liquid tank storage/secondary containment inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
330	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
340	Industrial processing and finished product storage areas inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
350	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
360	Equipment operation and maintenance areas inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
370	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
380	Fueling areas inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
390	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
400	Outdoor vehicle and equipment washing areas inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
410	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

420	Machinery inspected?				
430	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
440	Waste handling and disposal areas inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
450	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
460	Erodible areas/construction inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
470	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
480	Locations and sources of run-on to the site inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
490	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
500	Non-stormwater/illicit connections inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
510	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
520	Salt storage piles or pile containing salt inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
530	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
540	Dust generation and vehicle tracking inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
550	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
560	Housekeeping (Industrial materials/residues/trash in contact with stormwater) inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
570	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
580	Leaks and spills inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
590	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Non-Compliance

610	Free of incidents of observed non-compliance not associated with any of the above? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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Additional Control Measures

630	Are permit requirements satisfied with existing control measure(s) not associated with any of the above? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Leonard Sandoval	10/3/2016 / 14				

Labor Report

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

Report:

Signature / Name	Date	Signature / Name	Date
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Signature (lead inspector):

Leonard F. Sandoval

Date and Time:

10/4/2016 11:20 a.m.**CERTIFICATION STATEMENT**

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

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

Print name and title:

Russell Stone, DSESHS-UIS Group Leader

Signature:

Russell Stone




Date:

10/11/2016

Maintenance Details

Requested: 11/1/2016 1:15:41 PM
Procedure: MSGP Stormwater
 Industrial Routine Facility
 Inspection (EPC-CP-Form-
 1020.1)

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

 MSGP Program
 RG200.5
 TA-60 Asphalt Batch Plant

Last PM: N/A
Project: Routine Facility Inspections
 Nov 2016 (P-MSGP-5146)

Contact:
Phone:

Reason: MSGP Stormwater Industrial Routine Facility Inspection

Weather at inspection:

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
Weather Information							
	Describe the weather at time of inspection in the Weather lookup table. If "Other" is chosen, provide description in task comments of this line. Document the temperature (F°) in the "Reading" field of this line.						
20				11/1/2016 9:54 a.m. Temp 45°F w/ high of 64°F Wind less than 5 mph	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Within the Facility Boundary							
40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "Failed", describe:				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	If "Failed" has a CAR been previously initiated for this new discharge? (Range: 0 - 0)				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Is the facility free of discharge of pollutants at the time of inspection? If "Failed" describe: (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "Failed" describe: (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Outfall Inspection (needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)							
90	Monitored Outfall [043] Free of Evidence of Erosion? (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100	Monitored Outfall [043] Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110	Monitored Outfall [043] Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Control Measures (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comments).							
130	Rip Rap [6000104060005] Control Measure is operating effectively? (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Rip Rap [6000104060005] If "Failed", is control measure in need of maintenance, Repair, or Replacement?				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
150	Detention Pond [6000111020001] Control Measure is operating effectively?				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
160					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Detention Pond [6000111020001] If "Failed", is control measure in need of maintenance, Repair, or Replacement?

170	Rock Check Dam [6000106010002] Control Measure is operating effectively? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Rock Check Dam [6000106010002] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
190	Rock Check Dam [6000106010003] Control Measure is operating effectively? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
200	Rock Check Dam [6000106010003] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
210	Base Course Berm [6000103020004] Control Measure is operating effectively? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
220	Base Course Berm [6000103020004] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
230	Base Course Berm [6000103020006] Control Measure is operating effectively? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
240	Base Course Berm [6000103020006] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

260	Material loading/unloading and storage areas inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
270	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
280	Transfer areas for substances in bulk inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
290	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
300	Produce/chemical storage areas (raw material) inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
310	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
320	Liquid tank storage/secondary containment inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
330	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
340	Industrial processing and finished product storage areas inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
350	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
360	Equipment operation and maintenance areas inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
370	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
380	Fueling areas inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
390	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
400	Outdoor vehicle and equipment washing areas inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
410	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
420	Machinery inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
430	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
440	Waste handling and disposal areas inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
450		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)			
460	Erodible areas/construction inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
470	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
480	Locations and sources of run-on to the site inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
490	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
500	Non-stormwater/illicit connections inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
510	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
520	Salt storage piles or pile containing salt inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
530	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
540	Dust generation and vehicle tracking inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
550	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
560	Housekeeping (Industrial materials/residues/trash in contact with stormwater) inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
570	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
580	Leaks and spills inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
590	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Non-Compliance

610	Free of incidents of observed non-compliance not associated with any of the above? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Additional Control Measures

630	Are permit requirements satisfied with existing control measure(s) not associated with any of the above? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Labor

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

Labor Report

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

Report:

Signature / Name	Date	Signature / Name	Date
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WO ID: _____ Page _____ of _____

Signature (lead inspector): *Leonard F. Smith* Date and Time: 11/1/2016 10:15 a.m.

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

CERTIFICATION STATEMENT

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

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

Print name and title: Russell Stone, GL DESKS-HIS

Signature: *Russell Stone* Date: 11/7/2016

Maintenance Details

Requested: 12/6/2016 3:51:18 PM**Target:** 12/30/2016 MSGP Program**Procedure:** MSGP Stormwater
Industrial Routine Facility
Inspection (EPC-CP-Form-
1020.1)**Priority/Type:** Normal / Inspection RG200.5**Department:** Utilities and
Infrastructure TA-60 Asphalt Batch Plant**Last PM:** 11/1/2016**Contact:****Project:** Routine Facility Inspections
Dec 2016 (P-MSGP-RI-
5158)**Phone:****Reason:** MSGP Stormwater Industrial Routine Facility Inspection**Precipitation Type:****Odor:****Clarity:****Settled Solids:****Suspended Solids:****Special Instructions:** NMR053195

12/22/2016 9am. to 9:20am.
Temp. 26°F w/ high of 34°F
Wind S to 10mph
Rain/snow mix w/ 1" of snow
on the ground - 100% chance of
precipitation

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
Weather Information							
	Describe the weather at time of inspection in the Weather lookup table. If "Other" is chosen, provide description in task comments of this line. Document the temperature (F°) in the "Reading" field of this line.						
20					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Within the Facility Boundary							
	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "Failed", describe:				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	If "Failed" has a CAR been previously initiated for this new discharge? (Range: 0 - 0)				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
50					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Is the facility free of discharge of pollutants at the time of inspection? If "Failed" describe: (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "Failed" describe: (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Outfall Inspection (needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)							
	Monitored Outfall [043] Free of Evidence of Erosion? (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
90					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Monitored Outfall [043] Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Monitored Outfall [043] Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Control Measures (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comments).							
	Rip Rap [6000104060005] Control Measure is operating effectively? (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Rip Rap [6000104060005] If "Failed", is control measure in need of maintenance, Repair, or Replacement?			
150	Detention Pond [6000111020001] Control Measure is operating effectively?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160	Detention Pond [6000111020001] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
170	Rock Check Dam [6000106010002] Control Measure is operating effectively? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Rock Check Dam [6000106010002] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
190	Rock Check Dam [6000106010003] Control Measure is operating effectively? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
200	Rock Check Dam [6000106010003] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
210	Base Course Berm [6000103020004] Control Measure is operating effectively? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
220	Base Course Berm [6000103020004] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
230	Base Course Berm [6000103020006] Control Measure is operating effectively? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
240	Base Course Berm [6000103020006] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Area/Activity exposed to stormwater (identify needed maintenance or a description of corrective actions in relevant task comment).				
260	Material loading/unloading and storage areas inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
270	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
280	Transfer areas for substances in bulk inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
290	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
300	Produce/chemical storage areas (raw material) inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
310	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
320	Liquid tank storage/secondary containment inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
330	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
340	Industrial processing and finished product storage areas inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
350	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
360	Equipment operation and maintenance areas inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
370	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
380	Fueling areas inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
390	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
400	Outdoor vehicle and equipment washing areas inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
410	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

420	Machinery inspected?					
430	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
440	Waste handling and disposal areas inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
450	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
460	Erodible areas/construction inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
470	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
480	Locations and sources of run-on to the site inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
490	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
500	Non-stormwater/illicit connections inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
510	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
520	Salt storage piles or pile containing salt inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
530	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
540	Dust generation and vehicle tracking inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
550	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
560	Housekeeping (Industrial materials/residues/trash in contact with stormwater) inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
570	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
580	Leaks and spills inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
590	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Non-Compliance

610	Free of incidents of observed non-compliance not associated with any of the above? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
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Additional Control Measures

630	Are permit requirements satisfied with existing control measure(s)? If "Failed" describe additional control measures needed. (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
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Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Leonard Sandoval	12/30/2016 / 14				

Labor Report

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

Report:

 Signature / Name Date Signature / Name Date

WO ID: _____ Page _____ of _____

Signature (lead inspector): Leonard J. Jandani Date and Time: 12/22/2016 9:20 a.m.

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

Inspection conducted with the following member of EPC-CP: Marvin Shendo

CERTIFICATION STATEMENT

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

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

Print name and title: Russell Stone GL DSESH-UTS

Signature: Russell Stone Date: 1/5/2017

Maintenance Details

Requested: 1/23/2017 10:55:05 AM
Procedure: MSGP Stormwater
 Industrial Routine Facility
 Inspection (EPC-CP-Form-
 1020, 1)




Last PM: 12/22/2016
Project: Routine Facility Inspections
 Jan 21017 (P-MSGP-RI-
 5159)

Reason: 2017 January Inspections

Weather at inspection:

Special Instructions: NMR053195

Target: 1/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and
 Infrastructure

 MSGP Program
 RG200.5
 TA-60 Asphalt Batch Plant

Contact:
Phone:

*1/23/2017 8:45am. to 9:03 am.
 Temp. 30°F w/ high of 40°F
 Wind 10 to 15 mph. Cloudy w/ 40%
 Chance of precipitation; ground covered
 w/ snow & ice*

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
Weather Information							
20	Describe the weather at time of inspection in the Weather lookup table. If "Other" is chosen, provide description in task comments of this line. Document the temperature (F°) in the "Reading" field of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Within the Facility Boundary							
40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "Failed", describe:				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	If "Failed" has a CAR been previously initiated for this new discharge? (Range: 0 - 0)				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Is the facility free of discharge of pollutants at the time of inspection? If "Failed" describe: (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "Failed" describe: (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Outfall Inspection (needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)							
90	Monitored Outfall [043] Free of Evidence of Erosion? (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100	Monitored Outfall [043] Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110	Monitored Outfall [043] Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Control Measures (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comments).							
130	Rip Rap [6000104060005] Control Measure is operating effectively? (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Rip Rap [6000104060005] If "Failed", is control measure in need of maintenance, Repair, or Replacement?				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
150	Detention Pond [6000111020001] Control Measure is operating effectively?				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

160	Detention Pond [6000111020001] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
170	Rock Check Dam [6000106010002] Control Measure is operating effectively? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Rock Check Dam [6000106010002] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
190	Rock Check Dam [6000106010003] Control Measure is operating effectively? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
200	Rock Check Dam [6000106010003] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
210	Base Course Berm [6000103020004] Control Measure is operating effectively? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
220	Base Course Berm [6000103020004] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
230	Base Course Berm [6000103020006] Control Measure is operating effectively? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
240	Base Course Berm [6000103020006] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

260	Material loading/unloading and storage areas inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
270	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
280	Transfer areas for substances in bulk inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
290	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
300	Product/chemical storage areas (raw material) inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
310	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
320	Liquid tank storage/secondary containment inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
330	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
340	Industrial processing and finished product storage areas inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
350	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
360	Equipment operation and maintenance areas inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
370	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
380	Fueling areas inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
390	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
400	Outdoor vehicle and equipment washing areas inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
410	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
420	Machinery inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
430	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
440	Waste handling and disposal areas inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
450		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)					
460	Erodible areas/construction inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
470	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
480	Locations and sources of run-on to the site inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
490	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
500	Non-stormwater/illicit connections inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
510	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
520	Salt storage piles or pile containing salt inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
530	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
540	Dust generation and vehicle tracking inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
550	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
560	Housekeeping (Industrial materials/residues/trash in contact with stormwater) inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
570	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
580	Leaks and spills inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
590	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

Non-Compliance

610	Free of incidents of observed non-compliance not associated with any of the above? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Additional Control Measures

630	Are permit requirements satisfied with existing control measure(s)? If "Failed" describe additional control measures needed. (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Leonard Sandoval	1/30/2017 / 14				

Labor Report

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

Report:

WO ID: _____

Page ____ of ____

Signature (lead inspector): Leonard F. Stone Date and Time: 1/23/2017 9:03 a.m.

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

CERTIFICATION STATEMENT

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

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




Print name and title: Russell Stone COL DSESH-UTS

Signature: Russell Stone Date: 1/23/2017

Maintenance Details

Requested: 2/6/2017 2:59:27 PM
Procedure: MSGP Stormwater
 Industrial Routine Facility
 Inspection (EPC-CP-Form-
 1020.1)

Target: 2/28/2017
Priority/Type: Normal / Inspection
Department: Utilities and
 Infrastructure

 MSGP Program
 RG200.5
 TA-60 Asphalt Batch Plant

Last PM: 12/19/2016
Project: RIs Feb 2017 (P-MSGP-
 RI-5161)

Contact:
Phone:

Reason: MSGP Stormwater Industrial Routine Facility Inspection

Weather at inspection:

Special Instructions: NMR053195

2/23/2017

38°F w/ high of 43°F
 Wind 10 to 15 mph from
 the S/SW
 Partly Cloudy
 8:30 a.m.

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
Weather Information							
20	Describe the weather at time of inspection in the Weather lookup table. If "Other" is chosen, provide description in task comments of this line. Document the temperature (F°) in the "Reading" field of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Within the Facility Boundary							
40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "Failed", describe:				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	If "Failed" has a CAR been previously initiated for this new discharge? (Range: 0 - 0)				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Is the facility free of discharge of pollutants at the time of inspection? If "Failed" describe: (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "Failed" describe: (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Outfall Inspection (needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)							
90	Monitored Outfall [043] Free of Evidence of Erosion? (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100	Monitored Outfall [043] Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110	Monitored Outfall [043] Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Control Measures (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comments).							
130	Rip Rap [6000104060005] Control Measure is operating effectively? (Range: 0 - 0)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Rip Rap [6000104060005] If "Failed", is control measure in need of maintenance, Repair, or Replacement?				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
150	Detention Pond [6000111020001] Control Measure is operating effectively?				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
160					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Detention Pond [6000111020001] If "Failed", is control measure in need of maintenance, Repair, or Replacement?

170	Rock Check Dam [6000106010002] Control Measure is operating effectively? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Rock Check Dam [6000106010002] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
190	Rock Check Dam [6000106010003] Control Measure is operating effectively? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
200	Rock Check Dam [6000106010003] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
210	Base Course Berm [6000103020004] Control Measure is operating effectively? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
220	Base Course Berm [6000103020004] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
230	Base Course Berm [6000103020006] Control Measure is operating effectively? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
240	Base Course Berm [6000103020006] If "Failed", is control measure in need of maintenance, Repair, or Replacement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

260	Material loading/unloading and storage areas inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
270	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
280	Transfer areas for substances in bulk inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
290	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
300	Product/chemical storage areas (raw material) inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
310	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
320	Liquid tank storage/secondary containment inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
330	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
340	Industrial processing and finished product storage areas inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
350	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
360	Equipment operation and maintenance areas inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
370	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
380	Fueling areas inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
390	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
400	Outdoor vehicle and equipment washing areas inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
410	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
420	Machinery inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
430	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
440	Waste handling and disposal areas inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
450		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)			
460	Erodible areas/construction inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
470	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
480	Locations and sources of run-on to the site inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
490	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
500	Non-stormwater/illicit connections inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
510	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
520	Salt storage piles or pile containing salt inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
530	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
540	Dust generation and vehicle tracking inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
550	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
560	Housekeeping (Industrial materials/residues/trash in contact with stormwater) inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
570	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
580	Leaks and spills inspected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
590	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Non-Compliance

610	Free of incidents of observed non-compliance not associated with any of the above? (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Additional Control Measures

630	Are permit requirements satisfied with existing control measure(s)? If "Failed" describe additional control measures needed. (Range: 0 - 0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Leonard Sandoval	2/28/2017 / 14				

Labor Report

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

Report:

Concrete Secondary Containment & Sediment retention pond both dry.

WO ID: _____ Page _____ of _____

Signature (lead inspector): *Sean J. Smith* Date and Time: 2/23/2017 8:50 a.m.

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

CERTIFICATION STATEMENT

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

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

Print name and title: *Russell Stone GC DSESHS-UIIS*

Signature: *Russell Stone* Date: 2/23/2017

Maintenance Details

Requested: 3/7/2017 11:08:30 AM
Procedure: MSGP Stormwater
 Industrial Routine Facility
 Inspection (EPC-CP-Form-
 1020)




Last PM: 1/23/2017
Project: Routine Facility Inspections
 March 2017 (P-MSGP-RI-
 5162)

Reason: 2017 March Inspections

Weather at inspection:

Special Instructions: NMR053195

Target: 3/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and
 Infrastructure

 MSGP Program
 RG200.5
 TA-60 Asphalt Batch Plant

Contact:
Phone:

3/3/2017
 8:34 a.m.

Temp. 24°F / high of 53°F
 Clear/Sunny
 Wind less than 5 mph

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
Weather Information							
20	Describe the weather at time of inspection in the Weather lookup table. If "Other" is chosen, provide description in task comments of this line. Document the temperature (F°) in the "Reading" field of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Within the Facility Boundary							
40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "No", describe:				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	If "No" has a CAR been previously initiated for this new discharge?				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Outfall Inspection (needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)							
90	Monitored Outfall [043] Free of Evidence of Erosion? If "No", describe.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100	Monitored Outfall [043] Flow Dissipation Devices Operating Effectively? If "No", describe.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110	Monitored Outfall [043] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Control Measures (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comments).							
130	Rip Rap [6000104060005] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Detention Pond [600011020001] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Rock Check Dam [6000106010002] Control Measure is operating effectively? If "No" describe				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	condition & need for Maintenance, Repair, or Replacement.				
160	Rock Check Dam [6000106010003] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
170	Base Course Berm [6000103020004] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
180	Base Course Berm [6000103020006] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Area/Activity exposed to stormwater (identify needed maintenance or a description of corrective actions in relevant task comment).					
200	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
210	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
220	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
230	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
240	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
250	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
260	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
270	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
280	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
290	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
300	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
310	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
320	Non-stormwater/illicit connections: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
330	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
340	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
350	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

360 Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe. ☐ ☐ ☒

Non-Compliance

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

Additional Control Measures

400 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
Leonard Sandoval	3/31/2017 / 14				

Labor Report

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

Report:

Sediment Retention Pond & Concrete 2° Containment Dry

WO ID: _____ Page ____ of ____

Name/Z#: Leonard F. Sandala 114326

Signature (lead inspector): Leonard F. Sandala Date and Time: 3/3/2017 8:57 a.m.

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

CERTIFICATION STATEMENT

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

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




Print name and title: Russell Stone, GC DSSH-UTS

Signature: Russell Stone Date: 3/3/2017

Maintenance Details

Requested: 4/4/2017 5:48:24 PM
Procedure: MSGP Stormwater
 Industrial Routine Facility
 Inspection (EPC-CP-Form-
 1020)
Last PM: 1/23/2017
Project: Routine Facility Inspections
 April 2017 (P-MSGP-RI-
 5170)

Target: 4/30/2017
Priority/Type: Normal / Inspection
Department: Utilities and
 Infrastructure

 MSGP Program
 RG200.5
 TA-60 Asphalt Batch Plant

Contact:
Phone:

Reason: 2017 April Inspections

Weather at inspection:

Special Instructions: NMR053195

4/17/2017 Temp. 44°F / high of 72°F
 Clear/Sunny
 Wind Less than 5mph
 9:23 a.m.

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
Weather Information							
20	Describe the weather at time of inspection in the Weather lookup table. If "Other" is chosen, provide description in task comments of this line. Document the temperature (F°) in the "Reading" field of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Within the Facility Boundary							
40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "No", describe:				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	If "No" has a CAR been previously initiated for this new discharge?				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Outfall Inspection (needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)							
90	Monitored Outfall [043] Free of Evidence of Erosion? If "No", describe.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100	Monitored Outfall [043] Flow Dissipation Devices Operating Effectively? If "No", describe.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110	Monitored Outfall [043] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Control Measures (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comments).							
130	Rip Rap [6000104060005] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Detention Pond [6000111020001] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Rock Check Dam [6000106010002] Control Measure is operating effectively? If "No" describe				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	condition & need for Maintenance, Repair, or Replacement.				
160	Rock Check Dam [6000106010003] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
170	Base Course Berm [6000103020004] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
180	Base Course Berm [6000103020006] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Area/Activity exposed to stormwater (identify needed maintenance or a description of corrective actions in relevant task comment).					
200	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<i>Refer to Labor Report</i>			
210	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
220	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
230	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.	<i>Refer to Labor Report</i>			
240	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
250	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
260	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
270	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
280	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
290	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
300	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
310	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
320	Non-stormwater/illicit connections: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
330	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
340	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
350	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

360 Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe. ☐ ☐ ☒

Non-Compliance

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

Additional Control Measures

400 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
Leonard Sandoval	4/30/2017 / 14				

Labor Report

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

Report:

At the NE corner of the Asphalt Emulsion Concrete Secondary Containment hardened asphalt was cleaned up with a flat shovel and placed into a metal tarpot and will be heated and re-used. This was entered & closed in the MSGP tracking database as CAR # 1086.

South of & adjacent to the baghouse 60-0235 of the Asphalt Batch Plant there is a black & red 55 gallon drum with metal parts for the Asphalt Batch Plant that needs a lid or to be moved under a covered area. This was entered into the MSGP tracking database as CAR # 1087.

WO ID: _____ Page ____ of ____

Name/Z#: Leonard F. Santala 114326

Signature (lead inspector): Leonard F. Santala Date and Time: 4/17/2017 9:55 a.m.

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

CERTIFICATION STATEMENT

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

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




Print name and title: Russell Stone, GOL DCSHS- LITS

Signature: Russell Stone Date: 4/18/2017

Maintenance Details

Requested: 5/1/2017 11:12:38 AM
Procedure: MSGP Stormwater
 Industrial Routine Facility
 Inspection (EPC-CP-Form-
 1020)

Target: 5/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and
 Infrastructure

 MSGP Program
 RG200.5
 TA-60 Asphalt Batch Plant

Last PM: 3/3/2017
Project: Routine Facility Inspections
 May 2017 (P-MSGP-RI-
 5180)

Contact:
Phone:

Reason: 2017 May Inspections

Special Instructions: NMR053195

5/10/2017
 8:29 a.m.

Temp. 42°F / High of 53°F
 Cloudy / Overcast
 50% chance of precipitation
 Wind Less than 5 mph

Tasks

#	Description	Meas.	No	N/A	Yes
Weather Information					
20	Describe the weather at time of inspection in the Weather lookup table. If "Other" is chosen, provide description in task comments of this line. Document the temperature (F°) in the "Reading" field of this line.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Within the Facility Boundary					
40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "No", describe:		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	If "No" has a CAR been previously initiated for this new discharge?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe:		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe:		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Outfall Inspection (needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)					
90	Monitored Outfall [043] Free of Evidence of Erosion? If "No", describe:		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100	Monitored Outfall [043] Flow Dissipation Devices Operating Effectively? If "No", describe:		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110	Monitored Outfall [043] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe:		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Control Measures (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comments).					
130	Rip Rap [6000104060005] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Detention Pond [6000111020001] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Rock Check Dam [6000106010002] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160	Rock Check Dam [6000106010003] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	Base Course Berm [6000103020004] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Base Course Berm [6000103020006] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Area/Activity exposed to stormwater (identify needed maintenance or a description of corrective actions in relevant task comment).					
200			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.			
210	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
220	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
230	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
240	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
250	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
260	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
270	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
280	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
290	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
300	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
310	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
320	Non-stormwater/illicit connections: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
330	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
340	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
350	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
360	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Non-Compliance				
380	Free of incidents of observed non-compliance not already identified above? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Additional Control Measures				
400	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Leonard Sandoval	5/31/2017 / 14				

Labor Report

Completed: 5/10/2017

Report:

- The concrete Secondary Containment has rain water with no visible oily sheen.
 - The sediment retention pond has storm water runoff with no visible oily sheen.

Name/Z#: Leonard F. Sandoval 114326

Signature (lead inspector): Leonard F. Sandoval Date and Time: 5/10/2017 9:00 a.m.

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

CERTIFICATION STATEMENT

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

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




Print name and title: Russell Stone, GC DSESH-UTS

Signature: Russell Stone Date: 5/11/2017

Maintenance Details

Requested: 5/26/2017 4:14:35 PM
Procedure: MSGP Stormwater
 Industrial Routine Facility
 Inspection (EPC-CP-Form-
 1020)
Last PM: 4/17/2017
Project: Routine Facility Inspections
 June 2017 (P-MSGP-RI-
 5187)

Target: 6/30/2017
Priority/Type: Normal / Inspection
Department: Utilities and
 Infrastructure

 MSGP Program
 RG200.5
 TA-60 Asphalt Batch Plant

Contact:
Phone:

Reason: 2017 June Inspections

Special Instructions: NMR053195

6/6/2017

8:43 a.m.

Temp. 57°F w/high of 76°F
 Clear/Sunny / No Wind
 20% Chance of precipitation

Tasks

#	Description	Meas.	No	N/A	Yes
Weather Information					
20	Describe the weather at time of inspection. Document the temperature (F°) in the "Reading" field of this line.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Within the Facility Boundary					
40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "No", describe:		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	If "No" has a CAR been previously initiated for this new discharge?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Outfall Inspection (needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)					
90	Monitored Outfall [043] Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100	Monitored Outfall [043] Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110	Monitored Outfall [043] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Control Measures (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comments).					
130	Rip Rap [6000104060005] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Detention Pond [6000111020001] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Rock Check Dam [6000106010002] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160	Rock Check Dam [6000106010003] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	Base Course Berm [6000103020004] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Base Course Berm [6000103020006] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Area/Activity exposed to stormwater (identify needed maintenance or a description of corrective actions in relevant task comment).					
200	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

210	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
220	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
230	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
240	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
250	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
260	Fueling areas: controls adequate (appropriate; effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
270	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
280	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
290	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
300	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
310	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
320	Non-stormwater/illicit connections: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
330	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
340	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
350	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
360	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Non-Compliance				
380	Free of incidents of observed non-compliance not already identified above? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Additional Control Measures				
400	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Leonard Sandoval	5/26/2017 / 1				

Labor Report

Completed: _____

Report: _____

Name/Z#: Leonard F. Sordani 114326

Signature (lead inspector): Leonard F. Sordani Date and Time: 6/6/2017 9:05 a.m.

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

CERTIFICATION STATEMENT

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

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

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

Signature: Russell Stone Date: 6/12/2017

Maintenance Details

Requested: 7/10/2017 8:54:24 AM

Target: 7/31/2017

MSGP Program

Procedure: MSGP Stormwater Industrial
Routine Facility Inspection
(EPC-CP-Form-1020)

Priority/Type: Normal / Inspection

RG200.5

Department: Utilities and Infrastructure

TA-60 Asphalt Batch Plant

Last PM: 6/6/2017

Project: Routine Facility Inspections
July 2017 (P-MSGP-RI-5199)

Contact:

Phone:

Reason: 2017 July Inspections

Special Instructions: NMR053195

7/17/2017
12:38 p.m.Temp. 58°F w/ high of 80°F
Scattered Clouds / Wind 5 mph
30% Chance of precipitation

Tasks

#	Description	Meas.	No	N/A	Yes
Weather Information					
20	Describe the weather at time of inspection. Document the temperature (F°) in the "Reading" field of this line.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Within the Facility Boundary					
40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "No", describe:		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	If "No" has a CAR been previously initiated for this new discharge?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Outfall Inspection (needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)					
90	Monitored Outfall [043] Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100	Monitored Outfall [043] Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110	Monitored Outfall [043] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Control Measures (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comments).					
130	Rip Rap [6000104060005] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Detention Pond [6000111020001] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Rock Check Dam [6000106010002] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160	Rock Check Dam [6000106010003] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	Base Course Berm [6000103020004] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Base Course Berm [6000103020006] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Area/Activity exposed to stormwater (identify needed maintenance or a description of corrective actions in relevant task comment).					
200	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
210	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
220	Product/chemical storage areas (raw material): controls adequate (appropriate, effective,		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Refer to Labor Report

	and operating)? If "No" describe.			
230	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
240	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
250	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
260	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
270	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
280	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
290	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
300	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
310	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
320	Non-stormwater/illicit connections: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
330	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
340	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
350	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
360	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Non-Compliance

380	Free of incidents of observed non-compliance not already identified above? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Additional Control Measures

400	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Leonard Sandoval	7/10/2017 / 1				

Labor Report

Completed: _____

Report:

West of 60-233 on a elevated platform with stairs there's two 5 gallon plastic containers of hand pump sprayer full of asphalt release agent improperly stored outside. This was entered into the MSGP tracking database as CAR# 1139.

WO ID: _____ Page _____ of _____

Name/Z#: Leonard F. Sandoval 114326

Signature (lead inspector): Leonard F. Sandoval Date and Time: 7/17/2017 1:00 p.m.

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

CERTIFICATION STATEMENT

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

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

Print name and title: Russell Stone GL DSESH-UTS

Signature: Russell Stone Date: 7/20/2017

Maintenance Details

Requested: 8/2/2017 9:15:22 AM

Target: 8/31/2017

MSGP Program

Procedure: MSGP Stormwater Industrial
Routine Facility Inspection
(EPC-CP-Form-1020)

Priority/Type: Normal / Inspection

RG200.5

Department: Utilities and Infrastructure

TA-60 Asphalt Batch Plant

Last PM: 6/6/2017

Project: Routine Facility Inspections
August 2017 (P-MSGP-RI-
5207)Contact:
Phone:

Reason: MSGP Stormwater Industrial Routine Facility Inspection

Special Instructions: NMR053195

8/4/2017
8:55 a.m.Temp. 56°F / high of 74°F
Clear / Sunny
50% Chance of rain
No Wind

Tasks

#	Description	Meas.	No	N/A	Yes
Weather Information					
20	Describe the weather at time of inspection. Document the temperature (F°) in the "Reading" field of this line.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Within the Facility Boundary					
40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "No", describe:		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	If "No" has a CAR been previously initiated for this new discharge?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Outfall Inspection (needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)					
90	Monitored Outfall [043] Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100	Monitored Outfall [043] Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110	Monitored Outfall [043] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Control Measures (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comments).					
130	Rip Rap [6000104060005] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Detention Pond [6000111020001] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Rock Check Dam [6000106010002] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160	Rock Check Dam [6000106010003] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	Base Course Berm [6000103020004] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Base Course Berm [6000103020006] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Area/Activity exposed to stormwater (identify needed maintenance or a description of corrective actions in relevant task comment).					
200	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
210	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

220	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
230	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
240	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
250	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
260	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
270	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
280	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
290	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
300	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
310	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
320	Non-stormwater/illicit connections: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
330	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
340	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
350	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
360	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Non-Compliance

380	Free of incidents of observed non-compliance not already identified above? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Additional Control Measures

400	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Leonard Sandoval	8/2/2017 / 1				

Labor Report

Completed: _____

Report: _____

Signature / Name	Date	Signature / Name	Date
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I confirm the information as recorded is true, accurate and complete.

Name/Z#: Leonard F. Sandwal 114326

Signature (lead inspector): Leonard F. Sandwal Date and Time: 8/4/2017 9:20 a.m.

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

CERTIFICATION STATEMENT

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

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

Print name and title: Russell Stone, GC DESHS-UTS

Signature: Russell Stone Date: 8/8/2017

Maintenance Details

Requested: 9/7/2017 12:25:42 PM

Target: 9/30/2017

MSGP Program

Procedure: MSGP Stormwater Industrial
Routine Facility Inspection
(EPC-CP-Form-1020)

Priority/Type: Normal / Inspection

RG200.5

Department: Utilities and Infrastructure

TA-60 Asphalt Batch Plant

Last PM: 7/17/2017

Project: Routine Facility Inspections
Sept 2017 (P-MSGP-RI-
5219)

9/15/2017

12:13 p.m.

Contact:

Phone:

Reason: MSGP Stormwater Industrial Routine Facility Inspection

Special Instructions: NMR053195

Temp. 55°F w/ high of 75°F
Sunny with scattered clouds
Wind S to 10 mph

Tasks

#	Description	Meas.	No	N/A	Yes
Weather Information					
20	Describe the weather at time of inspection. Document the temperature (F°) in the "Reading" field of this line.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Within the Facility Boundary					
40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "No", describe:		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	If "No" has a CAR been previously initiated for this new discharge?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Outfall Inspection (needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)					
90	Monitored Outfall [043] Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100	Monitored Outfall [043] Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110	Monitored Outfall [043] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Control Measures (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comments).					
130	Rip Rap [6000104060005] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Detention Pond [6000111020001] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Rock Check Dam [6000106010002] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160	Rock Check Dam [6000106010003] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	Base Course Berm [6000103020004] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Base Course Berm [6000103020006] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Area/Activity exposed to stormwater (identify needed maintenance or a description of corrective actions in relevant task comment).					
200	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
210	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

220	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
230	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
240	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
250	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
260	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
270	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
280	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
290	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
300	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
310	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
320	Non-stormwater/illicit connections: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
330	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
340	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
350	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
360	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Non-Compliance				
380	Free of incidents of observed non-compliance not already identified above? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Additional Control Measures				
400	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Leonard Sandoval	9/7/2017 / 1				

Labor Report

Completed: _____

Report: _____

WO ID: _____ Page _____ of _____

Name/Z#: Leonard F. Sandoval 114326

Signature (lead inspector): Leonard F. Sandoval Date and Time: 9/15/2017 12:38 p.m.

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

CERTIFICATION STATEMENT

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

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

Print name and title: Russell Stone GL DSESH-UTS

Signature: Russell Stone Date: 9/29/2017

Maintenance Details

Requested: 9/28/2017 1:48:17 PM

Target: 10/28/2017

MSGP Program

Procedure: MSGP Stormwater Industrial
Routine Facility Inspection
(EPC-CP-Form-1020)

Priority/Type: Normal / Inspection

RG200.5

Department: Utilities and Infrastructure

TA-60 Asphalt Batch Plant

Last PM: 8/4/2017

Project: Routine Facility Inspections
Oct 2017 (P-MSGP-RI-5225)10/13/2017
8:00 a.m.Contact:
Phone:

Reason: MSGP Stormwater Industrial Routine Facility Inspection

Special Instructions: NMR053195

Temp. 54°F w/high of 70°F
Clear/Sunny
Wind - Calm

Tasks

#	Description	Meas.	No	N/A	Yes
Weather Information					
20	Describe the weather at time of inspection. Document the temperature (F°) in the "Reading" field of this line.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Within the Facility Boundary					
40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "No", describe:		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	If "No" has a CAR been previously initiated for this new discharge?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Outfall Inspection (needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)					
90	Monitored Outfall [043] Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100	Monitored Outfall [043] Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110	Monitored Outfall [043] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Control Measures (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comments).					
130	Rip Rap [6000104060005] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Detention Pond [6000111020001] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Rock Check Dam [6000106010002] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160	Rock Check Dam [6000106010003] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	Base Course Berm [6000103020004] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Base Course Berm [6000103020006] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Area/Activity exposed to stormwater (identify needed maintenance or a description of corrective actions in relevant task comment).					
200	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
210	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
220	Product/chemical storage areas (raw material): controls adequate (appropriate, effective,		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	and operating)? If "No" describe.			
230	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
240	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
250	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
260	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
270	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
280	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
290	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
300	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
310	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
320	Non-stormwater/illicit connections: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
330	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
340	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
350	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
360	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Non-Compliance				
380	Free of incidents of observed non-compliance not already identified above? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Additional Control Measures				
400	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Leonard Sandoval	9/28/2017 / 1				

Labor Report

Completed: _____

Report: _____

WO ID: _____ Page _____ of _____

Name/Z#: Leonard F. Sandoval 114326

Signature (lead inspector): Leonard F. Sandoval Date and Time: 10/13/2017 8:25 a.m.

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

CERTIFICATION STATEMENT

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

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

Print name and title: Russell Stone, GL DSEHS-UES

Signature: Russell Stone Date: 10/15/2017

Maintenance Details

Requested: 10/31/2017 2:43:23 PM

Target: 11/30/2017

MSGP Program

Procedure: MSGP Stormwater Industrial
Routine Facility Inspection
(EPC-CP-Form-1020)

Priority/Type: Normal / Inspection

RG200.5

Department: Utilities and Infrastructure

TA-60 Asphalt Batch Plant

Last PM: 9/15/2017

Project: Routine Facility Inspections
Nov 2017 (P-MSGP-RI-5238)

Contact:

Phone:

Reason: 2017 November Inspections

Special Instructions: NMR053195

11/2/2017 8:35 a.m.
Temp. 43°F / high of 61°F
Wind 10 to 20 mph
Clear/Sunny

Tasks

#	Description	Meas.	No	N/A	Yes
Weather Information					
20	Describe the weather at time of inspection and document the temperature (F°).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Within the Facility Boundary					
40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "Failed" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	If "No" has a CAR been previously initiated for this new discharge?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 [043] Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100	Monitored Outfall [043] Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110	Monitored Outfall [043] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Control Measures (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comments).					
130	Rip Rap [6000104060005] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Detention Pond [6000111020001] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Rock Check Dam [6000106010002] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160	Rock Check Dam [6000106010003] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	Base Course Berm [6000103020004] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Base Course Berm [6000103020006] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Area/Activity exposed to stormwater (identify needed maintenance or a description of corrective actions in relevant task comment).					
200	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
210	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
220	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- 230 Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe. ☐ ☐ ☒
- 240 Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe. ☐ ☐ ☒
- 250 Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe. ☐ ☐ ☒
- 260 Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe. ☐ ☒ ☐
- 270 Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe. ☐ ☒ ☐
- 280 Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe. ☐ ☐ ☒
- 290 Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe. ☐ ☒ ☐
- 300 Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe. ☐ ☒ ☐
- 310 Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe. ☐ ☒ ☐
- 320 Non-stormwater/illicit connections: controls adequate (appropriate, effective, and operating)? If "No" describe. ☐ ☒ ☐
- 330 Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe. ☐ ☒ ☐
- 340 Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe. ☐ ☐ ☒
- 350 Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe. ☐ ☐ ☒
- 360 Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe. ☐ ☐ ☒

Non-Compliance

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

Additional Control Measures

- 400 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
Leonard Sandoval	11/1/2017 / 1				

Labor Report

Completed: _____

Report: _____

WO ID: _____ Page _____ of _____

Name/Z#: Leonard F. Sandoval 114326

Signature (lead inspector): Leonard F. Sandoval Date and Time: 11/2/2017 9:07 a.m.

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

CERTIFICATION STATEMENT

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

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


Print name and title: Russell Stone, GL DESKS-UTS

Signature:  Date: 11/6/2017

Maintenance Details

Requested: 11/30/2017 1:54:35 PM
Procedure: MSGP Stormwater Industrial
 Routine Facility Inspection
 (EPC-CP-Form-1020)

Target: 12/31/2017
Priority/Type: Normal / Inspection
Department: Utilities and Infrastructure

 MSGP Program
 RG200.5
 TA-60 Asphalt Batch Plant

Last PM: 10/13/2017
Project: Routine Facility Inspections
 Dec 2017 (P-MSGP-RI-5246)

Contact:
Phone:

Reason: 2017 December Inspections

Special Instructions: NMR053195

12/18/2017 1:45 p.m.
 Temp. 43°F
 Clear/Sunny
 Wind less than 5 mph

Tasks

#	Description	Meas.	No	N/A	Yes
Weather Information					
20	Describe the weather at time of inspection and document the temperature (F°).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Within the Facility Boundary					
40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "Failed" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	If "No" has a CAR been previously initiated for this new discharge?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 [043] Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100	Monitored Outfall [043] Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110	Monitored Outfall [043] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Control Measures (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comments).					
130	Rip Rap [6000104060005] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Detention Pond [6000111020001] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Rock Check Dam [6000106010002] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160	Rock Check Dam [6000106010003] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	Base Course Berm [6000103020004] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Base Course Berm [6000103020006] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Area/Activity exposed to stormwater (identify needed maintenance or a description of corrective actions in relevant task comment).					
200	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
210	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
220	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

230	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
240	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
250	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
260	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
270	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
280	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
290	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
300	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
310	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
320	Non-stormwater/illicit connections: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
330	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
340	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
350	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
360	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Non-Compliance</p> <p>Free of incidents of observed non-compliance not already identified above? If "No" describe.</p> <p>380 <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>				
<p>Additional Control Measures</p> <p>Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.</p> <p>400 <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/></p>				

Refer to Labor Report

Refer to Labor Report

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Leonard Sandoval	12/31/2017 / 1				

Labor Report

Completed: _____

Report:

Numerous small stains on asphalt under heavy equipment trucks South of Enixtek Drive entered into the MSGP tracking database as CAR# 1254. Erosion at the east end of the sediment retention pond entered into the MSGP tracking database as CAR# 1255.

WO ID: _____ Page _____ of _____

Holly Wheeler & a student from EPC-CP helped perform the inspection which is considered an annual inspection.

Name/Z#: Leonard F. Sandoval 114326

Signature (lead inspector): Leonard F. Sandoval

Date and Time: 12/18/2017 2:16 p.m.

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

CERTIFICATION STATEMENT

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

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

Print name and title: Russell Stone GL DSESH-UTS

Signature:  Date: 12/21/2017

Terra tubes in front of concrete frame to MSGP sampler need to be replaced & entered into MSGP tracking database as CAR # 1256.

Quarterly Visual Assessments



memorandum

Environmental Protection Division
Environmental Compliance Programs (ENV-CP)

To/MS: Leonard Sandoval, DSESH-UIMS, P908
Thru/MS: Holly Wheeler, ENV-CP, (E-File) *HW*
From/MS: Mike Saladen, ENV-CP, (E-File) *MS*
Phone/Fax: 7-1312
Symbol: ENV-DO-14-0041
Date: FEB 13 2014

Subject: National Pollutant Discharge Elimination System (NPDES) Permit No. NMR05GB21, Multi-Sector General Permit (MSGP) Quarterly Visual Assessment (QVA) Forms for Monitoring Years 2011 and 2013 for the TA-60 Asphalt Batch Plant, Sector D

Please find attached a Quarterly Visual Assessment Report for 2012 and completed QVA Forms documenting visual assessments performed during the 2011 and 2013 MSGP monitoring years at the TA-60 Asphalt Batch Plant. Per Parts 4.2.2 and 5.4 of the 2008 MSGP, the QVA forms shall be incorporated into your MSGP Storm Water Pollution Prevention Plan (SWPPP). QVAs were conducted according to ENV-RCRA-QP-064, *MSGP Storm Water Visual Inspections*.

Part 4.2.1 of the 2008 MSGP requires the visual assessment of storm water discharge samples collected from each outfall once each quarter for the entire permit term. Part 4.2.3 allows facilities that are located in an area with an arid or 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, LANL has designated the following MSGP monitoring quarters.

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

During 2011 and 2013, the QVAs were conducted by Environmental Compliance Programs (ENV-CP) personnel at monitored outfall 60-ABP-1.

The attached QVA forms document the following information as required by Part 4.2.2 of the 2008 MSGP.

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

Part 4.2.3 of the 2008 MSGP allows the facility to take a substitute sample during the next qualifying storm event when adverse weather conditions prevent the collection of samples during a specific quarter. Adverse weather conditions are those that are dangerous or create inaccessibility for personnel or situations that otherwise make sampling impractical, such as drought or extended frozen conditions. Documentation of the rationale for no visual assessment for the quarter must be included in the facility-specific SWPPP. The attached QVA report documents those quarters when no QVA samples could be collected.

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 2008 MSGP Permit.

HW:MTS/lm

Enclosures: (1) Quarterly Visual Assessment Forms, 2011 Monitoring Year
(2) Quarterly Visual Assessment Report, 2012 Monitoring Year
(3) Quarterly Visual Assessment Forms, 2013 Monitoring Year

Cy: Alison M. Dorries, ENV-DO, (E-File)
Philbert Romero, DSESH-UIMS, (E-File)
locatestream@lanl.gov, (E-File)
env-correspondence@lanl.gov, (E-File)

ENCLOSURE 1

Quarterly Visual Assessment Forms
2011 Monitoring Year

ENV-DO-14-0041

Date: FEB 13 2014

MSGP Quarterly Visual Assessment Form

Complete a separate form for each outfall you assess. When adverse weather conditions prevent the collection of a sample during the quarter, a substitute sample must be taken during the next qualifying storm event. Maintain this document in your SWPPP.

Name/Location of Facility: RG 200.5 Permit Number: NMR05GB21 Inspection Quarter: ☐ Apr-May ☐ Jun-July ☒ Aug-Sep
☐ Oct-Nov

Outfall ID: 60-ABP-1 "Substantially Identical Outfall"? ☐ Yes ☒ No If YES identify other Outfalls in the Group: w/2 CH 10/22/12

Person(s) collecting sample (PRINT): Wrick Velazquez Signature: W. Velazquez
PPT Member? ☐ Yes ☒ No

Person(s) examining sample (PRINT): Marwin Shendo Signature: M. Shendo
PPT Member? ☐ Yes ☒ No

Date & Time Discharge Began: 9/7/2011 1249 Date & Time Sample Collected: 9/7/2011 1249 Date & Time Sample Examined: 9/8/2011 1415

Substitute Sample? ☐ Yes ☒ No If YES, identify quarter/year when sample was originally scheduled to be collected:

Was the sample collected in the first 30 minutes? ☒ Yes ☐ No If No, explain why not: Automated Sample Taken

Nature of Discharge: ☒ Rainfall. Amount 0.65 inches ☐ Snowmelt. Amount _____ inches RG 200.5 CH 10/22/12

Previous Storm Ended > 72 hours Before Start of This Storm? ☒ Yes ☐ No If No, Explain: *

PARAMETERS

Color: <u>Brown (light)</u> <input type="checkbox"/> None <input type="checkbox"/> Other	If Other describe:
Odor: <input checked="" type="checkbox"/> None <input type="checkbox"/> Musty <input type="checkbox"/> Sewage <input type="checkbox"/> Sulfur <input type="checkbox"/> Sour <input type="checkbox"/> Solvents <input type="checkbox"/> Petroleum/Gas <input type="checkbox"/> Other	If Other, describe the odor:
Clarity: <input type="checkbox"/> Clear <input type="checkbox"/> Slightly Cloudy <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Opaque <input type="checkbox"/> Other (describe):	
Floating Solids: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, describe if raw or waste materials(s):
Settled Solids:** <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <u>little</u>	If YES, are solids Fine <input checked="" type="checkbox"/> Coarse <input type="checkbox"/> If Other describe:
Suspended Solids: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, are solids Fine <input type="checkbox"/> Coarse <input type="checkbox"/> If Other describe:
Foam (gently shake sample): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, on the surface <input type="checkbox"/> or <input type="checkbox"/> in the water. Describe color:
Oil Sheen <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Color of Sheen:	Thickness: Flecks <input type="checkbox"/> Globs <input type="checkbox"/> Describe if other:
Other Obvious Indicators of Pollution Present in the sample? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	If YES describe:

SITE OBSERVATIONS

Potential pollutants found during visual examination? ☐ Yes ☒ No If Yes, list pollutant(s) and if possible indicate the source: If source is identified during collection of sample, please notify Tim Zimmerly @ 699-7621 or 664-0105

Pollutant	Source	Pollutant	Source

NOTE: A clean up of the site should be conducted if the pollutant source is known. Was proper Notification made? ☐ Yes ☒ No
If Yes, indicate who was notified:

CORRECTIVE ACTION

If storm water contamination was identified in this sample through visual assessment, was a Corrective Action Form filled out within 24 hrs of observation? Yes ☐ No ☐ If No, explain why not:

Was a Corrective Action Plan identified within 14 days of the observation? Yes ☐ No ☐ If No, explain why not:

Other Relevant Information: Yes ☐ No ☒
Use the back of this form to list any concerns, comments, and/or descriptions of pictures taken, (attach additional sheets as necessary).

* The 72-hour interval can be waived when the previous storm did not yield a measurable discharge or if you are able to document (attach applicable documentation) that less than a 72-hour interval is representative of local storm events during the sampling period.

** Observe for settled solids after allowing the sample to sit for approximately one-half hour.

QC: 10/22/12 Chavez

ORIGINAL

MSGP Quarterly Visual Assessment Form

Complete a separate form for each outfall you assess. When adverse weather conditions prevent the collection of a sample during the quarter, a substitute sample must be taken during the next qualifying storm event. Maintain this document in your SWPPP.

Name/Location of Facility: <u>E200.5</u>	Permit Number: <u>NMR05GB21</u>	Inspection Quarter: <input type="checkbox"/> Apr-May <input type="checkbox"/> Jun-July <input checked="" type="checkbox"/> Aug-Sep <input type="checkbox"/> Oct-Nov
Outfall ID: <u>600-ABR-1</u>	"Substantially Identical Outfall"? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES identify other Outfalls in the Group: <u>n/a CH 10/22/12</u>
Person(s) collecting sample (PRINT): <u>Marwin Shendo</u>	Signature: <u>MPSL</u>	
PPT Member? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Person(s) examining sample (PRINT): <u>Marwin Shendo</u>	Signature: <u>MPSL</u>	
PPT Member? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Date & Time Discharge Began: <u>9/11/2011 0649</u>	Date & Time Sample Collected: <u>9/11/2011 0649</u>	Date & Time Sample Examined: <u>09/13/11 1342</u>
Substitute Sample? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, identify quarter/year when sample was originally scheduled to be collected: <u>Q1 2011 CH 10/22/12</u>	
Was the sample collected in the first 30 minutes? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, explain why not: <u>Automated Sample Taken</u>		
Nature of Discharge: <input checked="" type="checkbox"/> Rainfall. Amount <u>0</u> inches. <input type="checkbox"/> Snowmelt. Amount _____ inches <u>RG: RG 200.5 0.01" @ RG 121.9 CH</u>		
Previous Storm Ended > 72 hours Before Start of This Storm? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		If No, Explain: * <u>10/22/12</u>

PARAMETERS

Color <u>Brown</u>	<input type="checkbox"/> None <input type="checkbox"/> Other	If Other describe:
Odor <input checked="" type="checkbox"/> Musty <input type="checkbox"/> Sewage <input type="checkbox"/> Sulfur <input type="checkbox"/> Sour <input type="checkbox"/> Solvents <input type="checkbox"/> Petroleum/Gas <input type="checkbox"/> Other	If Other, describe the odor:	
Clarity: <input type="checkbox"/> Clear <input type="checkbox"/> Slightly Cloudy <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Opaque <input type="checkbox"/> Other (describe):		
Floating Solids: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, describe if raw or waste materials(s):	
Settled Solids:** <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <u>Very Little</u>	If YES, are solids Fine <input checked="" type="checkbox"/> Coarse <input type="checkbox"/> If Other describe:	
Suspended Solids: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, are solids Fine <input checked="" type="checkbox"/> Coarse <input type="checkbox"/> If Other describe:	
Foam (gently shake sample): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, on the surface <input type="checkbox"/> or <input type="checkbox"/> in the water. Describe color:	
Oil Sheen <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Color of Sheen:	Thickness: Flecks <input type="checkbox"/> Globs <input type="checkbox"/> Describe if other:	
Other Obvious Indicators of Pollution Present in the sample? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	If YES describe:	

SITE OBSERVATIONS

Potential pollutants found during visual examination? ☐ Yes ☒ No If Yes, list pollutant(s) and if possible indicate the source: If source is identified during collection of sample, please notify Tim Zimmerly @ 699-7621 or 664-0105

Pollutant	Source	Pollutant	Source

NOTE: A clean up of the site should be conducted if the pollutant source is known. Was proper Notification made? ☐ Yes ☒ No
If Yes, indicate who was notified:

CORRECTIVE ACTION

If storm water contamination was identified in this sample through visual assessment, was a Corrective Action Form filled out within 24 hrs of observation? Yes ☐ No ☐ If No, explain why not:

Was a Corrective Action Plan identified within 14 days of the observation? Yes ☐ No ☐ If No, explain why not:

Other Relevant Information: Yes ☐ No ☒
Use the back of this form to list any concerns, comments, and/or descriptions of pictures taken, (attach additional sheets as necessary).

* The 72-hour interval can be waived when the previous storm did not yield a measurable discharge or if you are able to document (attach applicable documentation) that less than a 72-hour interval is representative of local storm events during the sampling period.

** Observe for settled solids after allowing the sample to sit for approximately one-half hour.

QC: 10/22/12 CHayer.

ORIGINAL

ENCLOSURE 2

Quarterly Visual Assessment Report 2012 Monitoring Year

ENV-DO-14-0041

Date: FEB 13 2014



NPDES Tracking
No. NMR05GB21

MSGP Quarterly Visual Assessment Report 2012 Monitoring Year

Report Date:
3/18/2013

FACILITY: TA-60 Asphalt Batch Plant

FOD: UIF

RAINGAGE: RG200.5

OUTFALL: 60-ABP-1

STATION: E200.5

SIO(s):

MSGP Quarter	QVA?	Adverse Weather or No Discharge?	Sample Collection Date and Time	Visual Assessment Date and Time	24-Hour Precipitation		Quarter Complete	Substitute Sample?	Quarter Assigned
					Amount (inches)	Duration (hrs)			
Q1	No	ND						<input type="checkbox"/>	
Q2	No	ND						<input type="checkbox"/>	
Q3	No	ND						<input type="checkbox"/>	
Q4	No	ND						<input type="checkbox"/>	

ENCLOSURE 3

**Quarterly Visual Assessment Forms
2013 Monitoring Year**

ENV-DO-14-0041

Date: FEB 13 2014

MSGP Quarterly Visual Assessment Form

Complete a separate form for each outfall you assess. When adverse weather conditions prevent the collection of a sample during the quarter, a substitute sample must be taken during the next qualifying storm event. Maintain this document in your SWPPP.

Name/Location of Facility: <u>E200.5</u>		Permit Number: <u>NMR05GB21</u>	Inspection Quarter: <input type="checkbox"/> Apr-May <input type="checkbox"/> Jun-July <input checked="" type="checkbox"/> Aug-Sep <input type="checkbox"/> Oct-Nov
Outfall ID: <u>60-ABP-1</u>	"Substantially Identical Outfall"? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		If YES identify other Outfalls in the Group:
Person(s) collecting sample (PRINT): <u>Marvin Shendo</u>		Signature: <u>[Signature]</u>	
PPT Member? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Person(s) examining sample (PRINT): <u>Marvin Shendo</u>		Signature: <u>[Signature]</u>	
PPT Member? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Date & Time Discharge Began: <u>9/12/13 1632</u>	Date & Time Sample Collected: <u>9/12/13 1632</u>	Date & Time Sample Examined: <u>9/13/13 9:39</u>	
Substitute Sample? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		If YES, identify quarter/year when sample was originally scheduled to be collected: <u>April-May-2013</u> Mar 9/30/13	
Was the sample collected in the first 30 minutes? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, explain why not: <u>NO 9/20/13</u>			
Nature of Discharge: <input checked="" type="checkbox"/> Rainfall. Amount <u>1.48</u> inches <input type="checkbox"/> Snowmelt. Amount _____ inches			
Previous Storm Ended > 72 hours Before Start of This Storm? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		If No, Explain: *	

PARAMETERS

Color: <input type="checkbox"/> None <input checked="" type="checkbox"/> Other	If Other describe: <u>Brownish</u>
Odor: <input checked="" type="checkbox"/> None <input type="checkbox"/> Musty <input type="checkbox"/> Sewage <input type="checkbox"/> Sulfur <input type="checkbox"/> Sour <input type="checkbox"/> Solvents <input type="checkbox"/> Petroleum/Gas <input type="checkbox"/> Other	If Other, describe the odor:
Clarity: <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Slightly Cloudy <input type="checkbox"/> Cloudy <input type="checkbox"/> Opaque <input type="checkbox"/> Other (describe):	
Floating Solids: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, describe if raw or waste materials(s): <u>Veg</u>
Settled Solids:** <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, are solids Fine <input type="checkbox"/> Coarse <input type="checkbox"/> If Other describe:
Suspended Solids: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, are solids Fine <input type="checkbox"/> Coarse <input checked="" type="checkbox"/> If Other describe: <u>Veg</u>
Foam (gently shake sample): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, on the surface <input type="checkbox"/> or <input type="checkbox"/> in the water. Describe color:
Oil Sheen <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Color of Sheen:	Thickness: Flecks <input type="checkbox"/> Globbs <input type="checkbox"/> Describe if other:
Other Obvious Indicators of Pollution Present in the sample? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	If YES describe:

SITE OBSERVATIONS

Potential pollutants found during visual examination? ☐ Yes ☒ No If Yes, list pollutant(s) and if possible indicate the source: If source is identified during collection of sample, please notify Holly Wheeler @ 667-1312

Pollutant	Source	Pollutant	Source

NOTE: A clean up of the site should be conducted if the pollutant source is known. Was proper Notification made? ☐ Yes ☒ No
If Yes, indicate who was notified:

CORRECTIVE ACTION

If storm water contamination was identified in this sample through visual assessment, was a Corrective Action Form filled out within 24 hrs of observation? Yes ☐ No ☐ If No, explain why not:

Was a Corrective Action Plan identified within 14 days of the observation? Yes ☐ No ☐ If No, explain why not:

Other Relevant Information: Yes ☐ No ☒

Use the back of this form to list any concerns, comments, and/or descriptions of pictures taken, (attach additional sheets as necessary).

* The 72-hour interval can be waived when the previous storm did not yield a measurable discharge or if you are able to document (attach applicable documentation) that less than a 72-hour interval is representative of local storm events during the sampling period.

** Observe for settled solids after allowing the sample to sit for approximately one-half hour.



ORIGINAL

MSGP Quarterly Visual Assessment Form

Complete a separate form for each outfall you assess. When adverse weather conditions prevent the collection of a sample during the quarter, a substitute sample must be taken during the next qualifying storm event. Maintain this document in your SWPPP.

Name/Location of Facility: <u>E2005</u>		Permit Number: <u>NMR05GB21</u>	Inspection Quarter: <input type="checkbox"/> Apr-May <input type="checkbox"/> Jun-July <input checked="" type="checkbox"/> Aug-Sep <input type="checkbox"/> Oct-Nov
Outfall ID: <u>60-ABP-1</u>	"Substantially Identical Outfall"? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		If YES identify other Outfalls in the Group:
Person(s) collecting sample (PRINT): <u>MARWIN SIANO</u>		Signature: <u>[Signature]</u>	
PPT Member? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Person(s) examining sample (PRINT): <u>MARWIN SIANO</u>		Signature: <u>[Signature]</u>	
PPT Member? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Date & Time Discharge Began: <u>9/19/13 4:03 am</u>	Date & Time Sample Collected: <u>9/18/13 4:03 am</u>	Date & Time Sample Examined: <u>9/18/13 12:50</u>	
Substitute Sample? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, identify quarter/year when sample was originally scheduled to be collected: <u>April-May-2013</u>		
Was the sample collected in the first 30 minutes? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, explain why not: <u>yes 9/19/13</u>			
Nature of Discharge: <input checked="" type="checkbox"/> Rainfall. Amount <u>2.4</u> inches <input type="checkbox"/> Snowmelt. Amount _____ inches			
Previous Storm Ended > 72 hours Before Start of This Storm? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		If No, Explain: *	

PARAMETERS	
Color: <input checked="" type="checkbox"/> None <input type="checkbox"/> Other	If Other describe:
Odor: <input checked="" type="checkbox"/> None <input type="checkbox"/> Musty <input type="checkbox"/> Sewage <input type="checkbox"/> Sulfur <input type="checkbox"/> Sour <input type="checkbox"/> Solvents <input type="checkbox"/> Petroleum/Gas <input type="checkbox"/> Other	If Other, describe the odor:
Clarity: <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Slightly Cloudy <input type="checkbox"/> Cloudy <input type="checkbox"/> Opaque <input type="checkbox"/> Other (describe):	
Floating Solids: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, describe if raw or waste materials(s):
Settled Solids:** <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, are solids Fine <input type="checkbox"/> Coarse <input type="checkbox"/> If Other describe:
Suspended Solids: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, are solids Fine <input type="checkbox"/> Coarse <input type="checkbox"/> If Other describe:
Foam (gently shake sample): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, on the surface <input type="checkbox"/> or <input type="checkbox"/> in the water. Describe color:
Oil Sheen <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Color of Sheen:	Thickness: Flecks <input type="checkbox"/> Globs <input type="checkbox"/> Describe if other:
Other Obvious Indicators of Pollution Present in the sample? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	If YES describe:

SITE OBSERVATIONS			
Potential pollutants found during visual examination? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, list pollutant(s) and if possible indicate the source: If source is identified during collection of sample, please notify Holly Wheeler @ 667-1312			
Pollutant	Source	Pollutant	Source

NOTE: A clean up of the site should be conducted if the pollutant source is known. Was proper Notification made? ☐ Yes ☒ No
If Yes, indicate who was notified:

CORRECTIVE ACTION	
If storm water contamination was identified in this sample through visual assessment, was a Corrective Action Form filled out within 24 hrs of observation? Yes <input type="checkbox"/> No <input type="checkbox"/> If No, explain why not:	
Was a Corrective Action Plan identified within 14 days of the observation? Yes <input type="checkbox"/> No <input type="checkbox"/> If No, explain why not:	
Other Relevant Information: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Use the back of this form to list any concerns, comments, and/or descriptions of pictures taken, (attach additional sheets as necessary).	

* The 72-hour interval can be waived when the previous storm did not yield a measurable discharge or if you are able to document (attach applicable documentation) that less than a 72-hour interval is representative of local storm events during the sampling period.

** Observe for settled solids after allowing the sample to sit for approximately one-half hour.



ORIGINAL

MSGP Quarterly Visual Assessment Form

Complete a separate form for each outfall you assess. When adverse weather conditions prevent the collection of a sample during the quarter, a substitute sample must be taken during the next qualifying storm event. Maintain this document in your SWPPP.

Name/Location of Facility: <u>PA-loc Asphalt Paving E 200.5</u>		Permit Number: <u>NMR05GB21</u>	Inspection Quarter: <input type="checkbox"/> Apr-May <input type="checkbox"/> Jun-July <input checked="" type="checkbox"/> Aug-Sep <input type="checkbox"/> Oct-Nov
Outfall ID: <u>60-ABP-1</u>	"Substantially Identical Outfall"? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		If YES identify other Outfalls in the Group:
Person(s) collecting sample (PRINT): PPT Member? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <u>MARWIN SHENDO</u>		Signature: <u>[Signature]</u>	
Person(s) examining sample (PRINT): PPT Member? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <u>MARWIN SHENDO</u>		Signature: <u>[Signature]</u>	
Date & Time Discharge Began: <u>9/22/13 1755</u>	Date & Time Sample Collected: <u>9/22/13 1755</u>	Date & Time Sample Examined: <u>9/23/13 1348</u>	
Substitute Sample? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <u>US 9/23/13</u>		If YES, identify quarter/year when sample was originally scheduled to be collected:	
Was the sample collected in the first 30 minutes? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, explain why not: <u>US 9/23/13</u>			
Nature of Discharge: <input checked="" type="checkbox"/> Rainfall. Amount <u>0.61</u> inches <input type="checkbox"/> Snowmelt. Amount _____ inches			
Previous Storm Ended > 72 hours Before Start of This Storm? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		If No, Explain: *	

PARAMETERS

Color: <input checked="" type="checkbox"/> None <input type="checkbox"/> Other	If Other describe:
Odor: <input checked="" type="checkbox"/> None <input type="checkbox"/> Musty <input type="checkbox"/> Sewage <input type="checkbox"/> Sulfur <input type="checkbox"/> Sour <input type="checkbox"/> Solvents <input type="checkbox"/> Petroleum/Gas <input type="checkbox"/> Other	If Other, describe the odor:
Clarity: <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Slightly Cloudy <input type="checkbox"/> Cloudy <input type="checkbox"/> Opaque <input type="checkbox"/> Other (describe):	
Floating Solids: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, describe if raw or waste materials(s):
Settled Solids:** <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, are solids Fine <input type="checkbox"/> Coarse <input type="checkbox"/> If Other describe:
Suspended Solids: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, are solids Fine <input type="checkbox"/> Coarse <input type="checkbox"/> If Other describe:
Foam (gently shake sample): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, on the surface <input type="checkbox"/> or <input type="checkbox"/> in the water. Describe color:
Oil Sheen <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Color of Sheen:	Thickness: Flecks <input type="checkbox"/> Globs <input type="checkbox"/> Describe if other:
Other Obvious Indicators of Pollution Present in the sample? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	If YES describe:

SITE OBSERVATIONS

Potential pollutants found during visual examination? ☐ Yes ☒ No If Yes, list pollutant(s) and if possible indicate the source: If source is identified during collection of sample, please notify Holly Wheeler @ 667-1312

Pollutant	Source	Pollutant	Source

NOTE: A clean up of the site should be conducted if the pollutant source is known. Was proper Notification made? ☐ Yes ☒ No
If Yes, indicate who was notified:

CORRECTIVE ACTION

If storm water contamination was identified in this sample through visual assessment, was a Corrective Action Form filled out within 24 hrs of observation? Yes ☐ No ☐ If No, explain why not:

Was a Corrective Action Plan identified within 14 days of the observation? Yes ☐ No ☐ If No, explain why not:

Other Relevant Information: Yes ☐ No ☒

Use the back of this form to list any concerns, comments, and/or descriptions of pictures taken, (attach additional sheets as necessary).

* The 72-hour interval can be waived when the previous storm did not yield a measurable discharge or if you are able to document (attach applicable documentation) that less than a 72-hour interval is representative of local storm events during the sampling period.

** Observe for settled solids after allowing the sample to sit for approximately one-half hour.



ORIGINAL

memorandum

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

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

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

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

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

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

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

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

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

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

TWL:HLW/lm

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

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

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

Maintenance Details

Requested: 4/18/2016 6:16:00 PM

Target: 4/20/2016

Procedure: MSGP Quarterly Visual
Assessment (EPC-CP-
Form-1021.2)

Priority/Type: Normal / Preventive

Last PM: 5/1/2013

Project: MSGP VISUALS- SNOW
EVENT 4-18-16 (P-MSGP-
4708)

MSGP Program

RG121.9

TA-3-22 Power & Steam Plant

Monitored Outfall (009)

MSGP00901

Contact:

Phone:

Reason: MSGP Q1 Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
Outfall Information							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP1			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/19/16	15:22	Grab	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/19/16	15:22	Grab	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/19/16	17:24		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR2	Snow on 4/18/16, 0.63 in total precip. as of 15:00			<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If no or unknown, provide reason in comments of this line.	Snowmelt ongoing			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
90	Previous storm ended >72 hours before start of storm? If no, provide reason in comments of this line.	Prev. storm ended 30 min prior to begin 4/17/16 23:35			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parameters							
110	Is sample colorless? If no, describe.	Filtered		MS 4/19/16	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
120	Is sample odorless? If no, document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
130	Is sample clear? If no, document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Is sample free of floating solids? If no, describe if raw or waste material(s) in the comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If no, document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Is sample free of suspended solids? If no, document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.

170	Is sample foamless after gently shaking? If no describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.	on the surface	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
180	Is sample devoid of an oil sheen? If no, describe color and thickness (e.g. flecks, globs) in the comments of this line.		MS 4/10/10 <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	Is sample free of other obvious indicators of pollution? If no, describe in the comments of this line.		MS <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Documents

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

Labor Report

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

Report:

foam in the visual is believed to be from vegetation and not from any pollutants.

Signature (collecting sample): MPSLE Date and Time: 4/19/16 15:22Signature (conducting visual assessment): MPSLE Date and
Time: 4/19/16 17:22**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., EPC Group Leader or designee)

Print name and title: Anthony R. Greggs, EPC-CP Group LeaderSignature: A R Greggs Date: 6/9/2016

Maintenance Details

Requested: 5/2/2016 11:40:56 AM

Target: 5/31/2016

Procedure: MSGP Quarterly Visual
Assessment (EPC-CP-
Form-1021.2)

Priority/Type: Normal / Inspection

Department: Utilities and
Infrastructure

Last PM: N/A

Project: Sio Visual Assessments
5/2/16 (P-MSGP-4731)

MSGP Program

RG121.9

TA-3-22 Power & Steam Plant

Monitored Outfall (009)

Substantially Identical Outfall (008)

MSGP00801

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:Lolly Wheeler
667-1312

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
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The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.

Sample information

30	Document the monitoring Period by using the Monitoring Period lookup table.				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
90	Previous storm ended >72 hours before start of storm? If "Failed", provide reason in comments of this line.				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Parameters

110	Is sample colorless? If "Failed", describe.				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
120	Is sample odorless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

"other" is chosen from the lookup table, provide description in comments of this line.

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

Documents

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

Labor Report

Completed: _____ Failure: _____

Report:

No flow. No sample collected. No visual assessment performed.

WO ID: MSCP-53786 Page 3 of 3

Signature (collecting sample): [Signature] Date and Time: 05/04/16 04:30 pm

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

CERTIFICATION STATEMENT

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

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

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

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

Maintenance Details

Requested: 5/2/2016 11:40:56 AM

Target: 5/31/2016

Procedure: MSGP Quarterly Visual
Assessment (EPC-CP-
Form-1021.2)

Priority/Type: Normal / Inspection

Department: Utilities and
Infrastructure

Last PM: N/A

Project: Sio Visual Assessments
5/2/16 (P-MSGP-4731)

MSGP Program

RG121.9

TA-3-22 Power & Steam Plant

Monitored Outfall (009)

Substantially Identical Outfall (010)

MSGP01001

Reason: MSGP Quarterly Visual Assessment

Contact:

Phone:

Holly Wheeler
667-1312

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
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The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.

Sample information

30	Document the monitoring Period by using the Monitoring Period lookup table.		April May		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		* Also 04/30/16 (estimated) 05/01/16 04:00 (see comment below)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		Personnel were not present during non-work hours (over the week-end). Likely sample was collected between 04:45 and 05/01/16. Precipitation started at 11:21 AM. (see comment below)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		05/04/16 16:35		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		Snow 04/30/16 Rain 05/01/16 0.22 (estimated)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		Sample jars were placed at outfall late afternoon on 04/30/16. Personnel were not present during non-work hours over the week-end. Multiple storm events occurred over the weekend.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
90	Previous storm ended >72 hours before start of storm? If "Failed", provide reason in comments of this line.		Multiple storm events occurred over the week-end starting on 04/29/16.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
110	Is sample colorless? If "Failed", describe.		Light tan		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120	Is sample odorless? If "Failed" document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Is sample clear? If "Failed" document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Is sample free of floating solids? If "Failed" describe if raw or waste material(s) in the comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If "Failed" document observation using the Settled Solids lookup table. If		Coarse		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* Change due to closer station data & snow melt. 05/05/16

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

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

Completed: _____ Failure: _____

[illegible]

WO ID: MSEP-53787 Page 3 of 3

Signature (collecting sample): [Signature] Date and Time: 05/04/16 16:37

Signature (conducting visual assessment): [Signature] Date and Time: 05/04/16 16:37

CERTIFICATION STATEMENT

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

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

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

Signature: [Signature] Date: 6/9/2016

Maintenance Details

Requested: 5/2/2016 11:40:57 AM

Target: 5/31/2016

Procedure: MSGP Quarterly Visual
Assessment (EPC-CP-
Form-1021.2)

Priority/Type: Normal / Inspection

Department: Utilities and
Infrastructure

Last PM: N/A

Project: Sio Visual Assessments
5/2/16 (P-MSGP-4731)

MSGP Program

RG121.9

TA-3-22 Power & Steam Plant

Monitored Outfall (005)

Substantially Identical Outfall (006)

MSGP00601

Reason: MSGP Quarterly Visual Assessment

Contact: Holly Wheeler
Phone: 667-1312

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
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The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.

Sample information

30	Document the monitoring Period by using the Monitoring Period lookup table.		Apr: 1 May				<input checked="" type="checkbox"/>
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)						<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format). <i>*(estimated) 13:50 - 16:30 05/05/16</i>		05/04/16 01:00 (see comment)				<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format). <i>between 01:00 & 04:45 on 05/01/16</i>		Personnel were not present during non-work hours. <i>likely sample was collected based on weekly and precip. total data with E 121.9</i>				<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		5/4/16 16:05				<input checked="" type="checkbox"/>
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		Snow Rain 0.36 in. total precip. And 5/11/16				<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line. <i>Sample jars were placed late in the afternoon 4/29/16</i>						<input checked="" type="checkbox"/>
90	Previous storm ended >72 hours before start of storm? If "Failed", provide reason in comments of this line. <i>Multiple storm events occurred over the weekend. Personnel were not present during non-work hours. Multiple storm events occurred starting on 4/29/16</i>						<input checked="" type="checkbox"/>

Parameters

110	Is sample colorless? If "Failed", describe.						<input checked="" type="checkbox"/>
120	Is sample odorless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		Musty				<input checked="" type="checkbox"/>
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.						<input checked="" type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.						<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If		Fine				<input checked="" type="checkbox"/>

* Change due to closer station data & snow melt. *1150 05/05/16*

"other" is chosen from the lookup table, provide description in comments of this line.

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

Documents

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

Labor Report

Completed: _____ Failure: _____

Report:

WO ID: MSOP-53788

Page 3 of 3

Signature (collecting sample):

[Handwritten Signature]

Date and Time: 5/4/16 16:14

Signature (conducting visual assessment):

[Handwritten Signature]

Date and Time: 5/4/16 16:14

CERTIFICATION STATEMENT

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

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

Print name and title:

Anthony R. Grieggs, EPC-CP Group Leader

Signature:

[Handwritten Signature: A R Grieggs]

Date:

6/9/2016

Maintenance Details

Requested: 5/2/2016 11:40:57 AM

Target: 5/31/2016

Procedure: MSGP Quarterly Visual
Assessment (EPC-CP-
Form-1021.2)

Priority/Type: Normal / Inspection

Department: Utilities and
Infrastructure

Last PM: N/A

Project: Sio Visual Assessments
5/2/16 (P-MSGP-4731)

MSGP Program

RG121.9

TA-3-22 Power & Steam Plant

Monitored Outfall (012)

Substantially Identical Outfall (011)

MSGP01101

Reason: MSGP Quarterly Visual Assessment

Contact: Holly Wheeler
Phone: 667-1312

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
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The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.

Sample information

30	Document the monitoring Period by using the Monitoring Period lookup table.	April May					X
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)						X
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/01/16 (estimated) 13:50					X
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/01/16 Personnel were not present during non-work hours (over the weekend), so only sample was collected between 0800 and 1600 on 05/01/16					X
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/01/16 14:25					X
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Snow 0.22 (24-hour) 0.36 in. total precip. Apr 31/16					X
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.	Sample jar was placed late in the afternoon on 05/01/16. Personnel were not present when sample was collected during non-work hours.					X
90	Previous storm ended >72 hours before start of storm? If "Failed" provide reason in comments of this line.	Multiple storm events occurred over the weekend starting on 04/29/16					X

Parameters

110	Is sample colorless? If "Failed", describe.						X
120	Is sample odorless? If "Failed" document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.						X
130	Is sample clear? If "Failed" document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.						X
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.						X
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If	Coarse					X

* Changes due to closer station data & snow melt, added 05/05/16

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

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

Completed: _____ Failure: _____

[illegible]

WO ID: M56P-53789

Page 3 of 3

Signature (collecting sample):

Holly Wheel

Date and Time:

05/04/16 16:28

Signature (conducting visual assessment):

Holly Wheel

Date and Time:

05/04/16 16:28

CERTIFICATION STATEMENT

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

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

Print name and title:

Anthony R. Grieggs, EPC-CP Group Leader

Signature:

A R Grieggs

Date:

6/9/2016

Maintenance Details

Requested: 5/2/2016 12:19:30 PM

Procedure: MSGP Quarterly Visual
Assessment (EPC-CP-
Form-1021.2)

Last PM: 4/19/2016

Project: 2016 Q1 Visual
Assessments 5/2/16
(P-MSGP-4732)

Target: 5/31/2016

Priority/Type: Normal / Inspection

Department: Utilities and
Infrastructure

MSGP Program

RG121.9

TA-3-22 Power & Steam Plant

Monitored Outfall (009)

MSGP00901

Contact:

Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP1			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/19/16	16:26		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/19/16	16:26		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/20/16	9:12		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain	0.08 in		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
90	Previous storm ended >72 hours before start of storm? If "Failed", provide reason in comments of this line.	Previous storm occurred 5/17/16 0.22 in.			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> WTA was 5/17/16
Parameters							
110	Is sample colorless? If "Failed", describe.	Gray			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120	Is sample odorless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Cloudy			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If	Fine			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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

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

[illegible]

53804
WO ID: MSGP-5304 Page 3 of 3
243512416

Signature (collecting sample): M. Shl. Date and Time: 5/19/16 16:24

Signature (conducting visual assessment): M. Shl. Date and Time: 5/20/16 9:12

CERTIFICATION STATEMENT

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

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

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

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

Maintenance Details

Requested: 5/16/2016 10:53:00 AM

Target: 5/31/2016

Procedure: MSGP Quarterly Visual
Assessment (EPC-CP-
Form-1021.2)

Priority/Type: Normal / Inspection

Department: Utilities and
Infrastructure

Last PM: 5/4/2016

Project: SIO Visual Assessments
5-16-16 (P-MSGP-4768)

MSGP Program

RG121.9

TA-3-22 Power & Steam Plant

Monitored Outfall (009)

Substantially Identical Outfall (008)

MSGP00801

Reason: MSGP Quarterly Visual Assessment

Contact:

Phone:

Special Instructions: NMR053195

Tasks

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

170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
180	Is sample devoid of an oil sheen? If "Failed" describe color and thickness (e.g. flecks, globs) in the comments of this line.				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
190	Is sample free of other obvious indicators of pollution? If "Failed" describe in the comments of this line.				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Completed: _____ Failure: _____

Report:

Report: no flow. No sample collected. No visual assessment performed.

WO ID: MSGP-54176

Page 3 of 3

Signature (collecting sample): [Signature] Date and Time: 05/16/16 07:10

Signature (conducting visual assessment): _____ Date and Time: _____

CERTIFICATION STATEMENT

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

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

Print name and title: Anthony R. Grieggs, EPC-CP group leader

Signature: [Signature] Date: 6/9/2016

Maintenance Details

Requested: 5/16/2016 10:53:00 AM

Target: 5/31/2016

MSGP Program

Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)

Priority/Type: Normal / Inspection

RG121.9

Department: Utilities and Infrastructure

TA-3-22 Power & Steam Plant

Last PM: 5/4/2016

Monitored Outfall (009)

Project: SIO Visual Assessments
5-16-16 (P-MSGP-4768)

Substantially Identical Outfall (010)

MSGP01001

Reason: MSGP Quarterly Visual Assessment

Contact:

Phone:

Special Instructions: NMR053195

Tasks

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

Is sample free of suspended solids? If "Failed" document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.

	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
170	Is sample devoid of an oil sheen? If "Failed" describe color and thickness (e.g. flecks, globs) in the comments of this line.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
180	Is sample free of other obvious indicators of pollution? If "Failed" describe in the comments of this line.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
190			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Labor Report

Completed: _____ Failure: _____

Report:

No Flow. No sample collected. No visual assessment performed.

WO ID: MSGP-54177

Page 3 of 3

Signature (collecting sample):

[Signature]

Date and Time:

05/16/15 15:57

Signature (conducting visual assessment):

Date and Time:

CERTIFICATION STATEMENT

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

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

Print name and title:

Anthony R Grieggs, EPC-CD Group Leader

Signature:

AR Grieggs

Date:

6/9/2016

Maintenance Details

Requested: 5/16/2016 10:53:00 AM

Target: 5/31/2016

Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)

Priority/Type: Normal / Inspection

Department: Utilities and Infrastructure

Last PM: 5/4/2016

Project: SIO Visual Assessments
5-16-16 (P-MSGP-4768)

MSGP Program

RG121.9

TA-3-22 Power & Steam Plant

Monitored Outfall (005)

Substantially Identical Outfall (006)

MSGP00601

Reason: MSGP Quarterly Visual Assessment

Contact:

Phone:

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.		April / May		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	Apt	05/15/16 10:00		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	Apt	05/15/16 10:00		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		05/14/16 16:30		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		Rain 0.15" / 0.15"		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		Sample jars were placed before storm event. Sample was collected on the weekend when personnel were not present.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parameters							
110	Is sample colorless? If "Failed", describe.		medium tan		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120	Is sample odorless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		musty		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		cloudy		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		Fine		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
160					<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Is sample devoid of an oil sheen? If "Failed" describe color and thickness (e.g. flecks, globs) in the comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	Is sample free of other obvious indicators of pollution? If "Failed" describe in the comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Completed: _____ Failure: _____

[illegible]

WO ID: 10 SC2-54178 Page 3 of 3

Signature (collecting sample): [Signature] Date and Time: 05/16/16 16:44

Signature (conducting visual assessment): [Signature] Date and Time: 05/16/16 16:44

CERTIFICATION STATEMENT

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

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

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

Signature: [Signature] Date: 6/9/2016

Maintenance Details

Requested: 5/16/2016 10:53:00 AM

Target: 5/31/2016

Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)

Priority/Type: Normal / Inspection

Department: Utilities and Infrastructure

Last PM: 5/4/2016

Project: SIO Visual Assessments
5-16-16 (P-MSGP-4768)

MSGP Program

RG121.9

TA-3-22 Power & Steam Plant

Monitored Outfall (012)

Substantially Identical Outfall (011)

MSGP01101

Reason: MSGP Quarterly Visual Assessment

Contact:

Phone:

Special Instructions: NMR053195

Tasks

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

Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.

170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Labor Report

Completed: _____ Failure: _____

Report:

No flow. No sample collected. No visual assessment conducted.

WO ID: MSGP-54179Page 3 of 3

Signature (collecting sample):

Holly White

Date and Time:

05/16/16 15:40

Signature (conducting visual assessment):

Date and Time:

CERTIFICATION STATEMENT

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

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

Print name and title:

Anthony R. Grieggs EPC-CP Group Leader

Signature:

AR Grieggs

Date:

6/9/2016

Maintenance Details

Requested: 4/28/2016 12:51:00 PM

Target: 5/31/2016

Procedure: MSGP Quarterly Visual
Assessment (EPC-CP-
Form-1021.2)

Priority/Type: / Inspection

Last PM: 4/20/2016

Project: MSGP Visual Assessments
Q1 2016 (P-MSGP-4708)

Reason: MSGP Q1 2016 Visual Assessment

Special Instructions: NMR053195

MSGP Program

RG121.9

TA-60-1 Heavy Equipment Yard

Monitored Outfall (022)

MSGP02201

Contact:

Phone:

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP1			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)	Filtered			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/15/16	1436		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/15/16	1436		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/18/16	1428		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR	0.15 in		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
90	Previous storm ended >72 hours before start of storm? If "Failed", provide reason in comments of this line.	Previous storm occurred less than 72 hours			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parameters							
110	Is sample colorless? If "Failed", describe.				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
120	Is sample odorless? If "Failed" document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Is sample clear? If "Failed" document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Is sample free of floating solids? If "Failed" describe if raw or waste material(s) in the comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If "Failed" document observation using the Settled Solids lookup table. If				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

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

[illegible]

WO ID: MSGP-5360

Page 3 of 3

Signature (collecting sample):

MSL

Date and Time:

5/15/16 1436

Signature (conducting visual assessment):

MSL

Date and Time:

5/18/16 1428

CERTIFICATION STATEMENT

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

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

Print name and title:

Anthony R. Grieggs, EPC-CP Group Leader

Signature:

A R Grieggs

Date:

6/9/2016

Maintenance Details

Requested: 5/2/2016 11:41:01 AM

Target: 5/31/2016

Procedure: MSGP Quarterly Visual
Assessment (EPC-CP-
Form-1021.2)

Priority/Type: Normal / Inspection

Department: Utilities and
Infrastructure

Last PM: N/A

Project: Sio Visual Assessments
5/2/16 (P-MSGP-4731)

MSGP Program

RG121.9

TA-60-1 Heavy Equipment Yard

Monitored Outfall (022)

Substantially Identical Outfall (021)

MSGP02101

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Contact:
Phone:Holly Wheeler
667-1312

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.		April May		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		05/04/16 13:50		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		05/01/16 13:50		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		05/05/16 12:49		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		0.36 in. total precip. available Snow melt drop		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		Personnel not present during rain-work hours. Multiple storm events occurred over the weekend. No spill.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
90	Previous storm ended >72 hours before start of storm? If "Failed", provide reason in comments of this line.		Previous storm event occurred 4/30/16, 0.22 in total precip. available		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parameters							
110	Is sample colorless? If "Failed", describe.		dark tan		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
120	Is sample odorless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Is sample clear? If "Failed" document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		opaque		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		Vegetation		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If		Fine		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

ID	Document Name	Type	Location
<u>MSGP VA signature</u>	MSGP Visual Assessment Signature	Signature page	View

Completed: _____ Failure: _____

[illegible]

WO ID: M56P-

Page 3 of 3

Signature (collecting sample):

Holly Wheel

Date and Time:

05/05/16 12:52

Signature (conducting visual assessment):

Holly Wheel

Date and Time:

05/05/16 12:52

CERTIFICATION STATEMENT

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

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

Print name and title:

Anthony R. Greggs, EPC-CP Group Leader

Signature:

A R Greggs

Date:

6/9/2016

Maintenance Details

Requested: 5/2/2016 11:41:02 AM

Target: 5/31/2016

MSGP Program

Procedure: MSGP Quarterly Visual
Assessment (EPC-CP-
Form-1021.2)

Priority/Type: Normal / Inspection

RG121.9

Last PM: N/A

Department: Utilities and
Infrastructure

TA-60-1 Heavy Equipment Yard

Project: Sio Visual Assessments
5/2/16 (P-MSGP-4731)

Monitored Outfall (022)

Substantially Identical Outfall (023)

MSGP02301

Reason: MSGP Quarterly Visual Assessment

Contact: Holly Wheeler
Phone: 667-1312

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
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The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.

Sample information

30	Document the monitoring Period by using the Monitoring Period lookup table.				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
90	Previous storm ended >72 hours before start of storm? If "Failed", provide reason in comments of this line.				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Parameters

110	Is sample colorless? If "Failed", describe.				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
120	Is sample odorless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

"other" is chosen from the lookup table, provide description in comments of this line.

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

Documents

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

Labor Report

Completed: _____ Failure: _____

Report:

Appears outfall flowed, however no precipitation was collected in the jar. No visual assessment was performed.

WO ID: MSGP-53796

Page 3 of 3

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

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

CERTIFICATION STATEMENT

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

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

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

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

Maintenance Details

Requested: 5/16/2016 10:53:00 AM

Target: 5/31/2016

Procedure: MSGP Quarterly Visual
Assessment (EPC-CP-
Form-1021.2)

Priority/Type: Normal / Inspection

Department: Utilities and
Infrastructure

Last PM: 5/5/2016

Project: SIO Visual Assessments
5-16-16 (P-MSGP-4768)

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:

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/19/16	16:10		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/19/16	16:10		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/19/16	16:42		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain	0.08"		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parameters							
110	Is sample colorless? If "Failed", describe.	Light Tan			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120	Is sample odorless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If "Failed" document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
160					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Labor Report

Completed: _____ Failure: _____

Report:

~~Data logger was installed on 05/19/16 at 17:05~~ Said the
 10934299
 05/19/16

WO ID: M564-54185 Page 3 of 3

Signature (collecting sample): [Signature] Date and Time: 05/19/16 16:47

Signature (conducting visual assessment): [Signature] Date and Time: 05/19/16 16:47

CERTIFICATION STATEMENT

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

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

Print name and title: Anthony R. Grieggs, EPC-CD Group Leader

Signature: [Signature] Date: 6/9/2016

Maintenance Details

Requested: 5/16/2016 11:58:00 AM

Target: 5/31/2016

Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)

Priority/Type: Normal / Inspection

Department: Utilities and Infrastructure

Last PM: N/A

Project: SIO Visual Assessments
5-16-16 (P-MSGP-4768)

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:

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.		MPI		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		Approx. 5/14/16 @ 16:10		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		Approx. 5/14/16 @ 16:10		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		5/20/16 2:37		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		Rain 0.08"		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parameters							
110	Is sample colorless? If "Failed", describe.		Gray		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120	Is sample odorless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		Musty		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		Cloudy		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
140	Is sample free of floating solids? If "Failed" describe if raw or waste material(s) in the comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If "Failed" document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		Fine		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
160					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

[illegible]

Completed: _____ Failure: _____

[illegible]

WO ID: MSGP-54212 Page 3 of 3

Signature (collecting sample): *msl* Date and Time: 5/20/16 2:39

Signature (conducting visual assessment): *msl* Date and Time: 5/20/16 2:37

CERTIFICATION STATEMENT

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

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

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

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

Maintenance Details

Requested: 5/16/2016 11:58:00 AM

Target: 5/31/2016

Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)

Priority/Type: Normal / Inspection

Department: Utilities and Infrastructure

Last PM: N/A

Project: SIO Visual Assessments
5-16-16 (P-MSGP-4768)

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:

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP1			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	approx. 5/14/16 @ 16:10			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	approx. 5/14/16 @ 16:20			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/20/16 MPF 5/19/16 2:32			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	BWS 5/20/16 Rain water 0.03"			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parameters							
110	Is sample colorless? If "Failed", describe.	Clear			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
120	Is sample odorless? If "Failed" document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If "Failed" document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	finer			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
160					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Is sample devoid of an oil sheen? If "Failed" describe color and thickness (e.g. flecks, globs) in the comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Completed: _____ Failure: _____

[illegible]

WO ID: 54213 Page 3 of 3

Signature (collecting sample): *Brian Schilling* Date and Time: 5/20/2016 2:37

Signature (conducting visual assessment): *Brian Schilling* Date and Time: 5/20/16 2:37

CERTIFICATION STATEMENT

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

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

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

Signature: *AR Grieggs* Date: 6/9/2016

Maintenance Details

Requested: 4/18/2016 6:16:00 PM

Target: 4/20/2016

Procedure: MSGP Quarterly Visual
Assessment (EPC-CP-
Form-1021.2)

Priority/Type: Normal / Preventive

MSGP Program

RG121.9

TA-60-2 Warehouse

Monitored Outfall (026)

MSGP02601

Last PM: 4/12/2016

Project: MSGP Visuals- snow event
4-18-16 (P-MSGP-4708)

Reason: MSGP Q1 Visual Assessment

Contact:

Phone:

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
Outfall Information							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP1			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/15/19	22:18		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/15/19	22:18		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/19/19	17:36		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR2	0.24in 0.09in N/A 4/18/16		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If no or unknown, provide reason in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
90	Previous storm ended >72 hours before start of storm? If no, provide reason in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parameters							
110	Is sample colorless? If no, describe.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
120	Is sample odorless? If no, document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
130	Is sample clear? If no, document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Filtered			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Is sample free of floating solids? If no, describe if raw or waste material(s) in the comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If no, document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160	Is sample free of suspended solids? If no, document observation using the Suspended Solids lookup				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

table. If "other" is chosen from the lookup table, provide description in comments of this line.

170	Is sample foamless after gently shaking? If no describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.	on the surface	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
180	Is sample devoid of an oil sheen? If no, describe color and thickness (e.g. flecks, globs) in the comments of this line.		MS 4/19/16 <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	Is sample free of other obvious indicators of pollution? If no, describe in the comments of this line.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Documents

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

Labor Report

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

Report:

Foam in the visual is believed to be from vegetation and not from any pollutants.

WO ID: MSGP-53602

Page 3 of 3

Signature (collecting sample):

MSL

Date and Time: 4/15/17 22:18

Signature (conducting visual assessment):

MSL

Time: 4/15/17 17:36

Date and

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., EPC Group Leader or designee)

Print name and title:

Anthony R. Gregg

Signature:

A R Gregg

Date:

6/9/2016

Maintenance Details

Requested: 5/2/2016 11:41:02 AM

Target: 5/31/2016

Procedure: MSGP Quarterly Visual
Assessment (EPC-CP-
Form-1021.2)

Priority/Type: Normal / Inspection

Department: Utilities and
Infrastructure

Last PM: N/A

Project: Sio Visual Assessments
5/2/16 (P-MSGP-4731)

MSGP Program

RG121.9

TA-60-2 Warehouse

Monitored Outfall (026)

Substantially Identical Outfall (027)

MSGP02701

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Contact: Holly Wheeler
Phone: 607-1312

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
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The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.

Sample information

30	Document the monitoring Period by using the Monitoring Period lookup table.				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
90	Previous storm ended >72 hours before start of storm? If "Failed", provide reason in comments of this line.				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Parameters

110	Is sample colorless? If "Failed", describe.				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
120	Is sample odorless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

"other" is chosen from the lookup table, provide description in comments of this line.

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

Documents

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

Labor Report

Completed: _____ Failure: _____

Report:

There was evidence that the out fall had flowed.
Not enough liquid in the jar to conduct a visual assessment.

WO ID: MSGP-53797

Page 3 of 3

Signature (collecting sample):

[Handwritten signature]

Date and Time: 05/05/2016

12:50 pm

Signature (conducting visual assessment):

N/A

Date and Time: _____

CERTIFICATION STATEMENT

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

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

Print name and title:

Anthony R. Grieggs, EPC-CP Group Leader

Signature:

[Handwritten signature: A R Grieggs]

Date:

6/9/2016

Maintenance Details

Requested: 5/2/2016 11:41:03 AM

Target: 5/31/2016

Procedure: MSGP Quarterly Visual
Assessment (EPC-CP-
Form-1021.2)

Priority/Type: Normal / Inspection

Department: Utilities and
Infrastructure

Last PM: N/A

Project: Sio Visual Assessments
5/2/16 (P-MSGP-4731)

MSGP Program

RG121.9

TA-60-2 Warehouse

Monitored Outfall (026)

Substantially Identical Outfall (028)

MSGP02801

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:Holly Wheeler
667-1312

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample Information							
30	Document the monitoring Period by using the Monitoring Period lookup table.	April May			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/01/16 13:50 (estimated)			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/04/16 13:50 (estimated)			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/05/16 12:41			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	0.36 in. snow melt 2-05-16			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.	Personnel not present during non-work hours. Multiple storm events occurred over the weekend.			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
90	Previous storm ended >72 hours before start of storm? If "Failed", provide reason in comments of this line.	Multiple storm events occurred over the weekend. Previous storm events occurred 4/30/16, 0.22 in. total precip. and 4/29/16, 0.24 in. total precip.			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parameters							
110	Is sample colorless? If "Failed", describe.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
120	Is sample odorless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If	Fine			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

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

Completed: _____ Failure: _____

[illegible]

WO ID: MSGP-53798 Page 3 of 3

Signature (collecting sample): [Signature] Date and Time: 05/05/16 12:45

Signature (conducting visual assessment): [Signature] Date and Time: 05/05/16 12:45

CERTIFICATION STATEMENT

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

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

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

Signature: [Signature] Date: 6/9/2016

Maintenance Details

Requested: 5/16/2016 10:53:00 AM

Target: 5/31/2016

Procedure: MSGP Quarterly Visual
Assessment (EPC-CP-
Form-1021.2)

Priority/Type: Normal / Inspection

Department: Utilities and
Infrastructure

Last PM: 5/5/2016

Project: SIO Visual Assessments
5-16-16 (P-MSGP-4768)

MSGP Program

RG121.9

TA-60-2 Warehouse

Monitored Outfall (026)

Substantially Identical Outfall (027)

MSGP02701

Reason: MSGP Quarterly Visual Assessment

Contact:

Phone:

Special Instructions: NMR053195

Tasks

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

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

Labor Report

Completed: _____ Failure: _____

Report:

Evidences that outfall flowed. No water in jar.
 Puddling & moisture at outfall.

WO ID: MSGP-54187 Page 3 of 3

Signature (collecting sample): [Signature] Date and Time: 05/19/16 16:28

Signature (conducting visual assessment): _____ Date and Time: _____

CERTIFICATION STATEMENT

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

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

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

Signature: [Signature] Date: 6/9/2016

Maintenance Details

Requested: 5/16/2016 10:53:00 AM

Target: 5/31/2016

Procedure: MSGP Quarterly Visual
Assessment (EPC-CP-
Form-1021.2)

Priority/Type: Normal / Inspection

Department: Utilities and
Infrastructure

Last PM: 5/5/2016

Project: SIO Visual Assessments
5-16-16 (P-MSGP-4768)

MSGP Program

RG121.9

TA-60-2 Warehouse

Monitored Outfall (026)

Substantially Identical Outfall (028)

MSGP02801

Reason: MSGP Quarterly Visual Assessment

Contact:

Phone:

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.	April/ May			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/19/16 16:10			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/19/16 16:10			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	05/19/16 16:35			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain 0.08"			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parameters							
110	Is sample colorless? If "Failed", describe.	medium tan			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120	Is sample odorless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	waste debris			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
160					<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5/24/16

Final

190

Report: *[Signature]*

[illegible]

WO ID: MS6A-54188 Page 3 of 3

Signature (collecting sample): [Signature] Date and Time: 05/19/16 16:38

Signature (conducting visual assessment): [Signature] Date and Time: 05/19/16 16:38

CERTIFICATION STATEMENT

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

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

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

Signature: [Signature] Date: 6/9/2016

Maintenance Details

Requested: 4/18/2016 6:16:00 PM

Target: 4/20/2016

Procedure: MSGP Quarterly Visual
Assessment (EPC-CP-
Form-1021.2)

Priority/Type: Normal / Preventive

MSGP Program

RG121.9

TA-60 MRF

Monitored Outfall (029)

MSGP02901

Last PM: 7/29/2013

Project: MSGP VISUALS- SNOW
EVENT 4-18-16 (P-MSGP-
4708)

Contact:

Phone:

Reason: MSGP Q1 Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
Outfall Information							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP1			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/15/16	11:21		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/15/16	11:21		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/19/16	17:46		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR2	0.24 in 2.09 in Ave 4/12/16		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If no or unknown, provide reason in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
90	Previous storm ended >72 hours before start of storm? If no, provide reason in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parameters							
110	Is sample colorless? If no, describe.	Yellowish			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120	Is sample odorless? If no, document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
130	Is sample clear? If no, document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C1			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
140	Is sample free of floating solids? If no, describe if raw or waste material(s) in the comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If no, document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Is sample free of suspended solids? If no, document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			
170	Is sample foamless after gently shaking? If no describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Is sample devoid of an oil sheen? If no, describe color and thickness (e.g. flecks, globs) in the comments of this line.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	Is sample free of other obvious indicators of pollution? If no, describe in the comments of this line.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Documents

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

Labor Report

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

Report:

WO ID: MSGP-53612 Page 3 of 3

Signature (collecting sample): MPSL Date and Time: 4/15/16 11:21

Signature (conducting visual assessment): MPSL Date and Time: 4/19/16 17:46

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., EPC Group Leader or designee)

Print name and title: Anthony R. Grieggs, EPC-CP Group leader

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

Maintenance Details

Requested: 5/2/2016 12:19:32 PM

Target: 5/31/2016

Procedure: MSGP Quarterly Visual
Assessment (EPC-CP-
Form-1021.2)

Priority/Type: Normal / Inspection

Department: Utilities and
Infrastructure

MSGP Program

RG121.9

TA-60 MRF

Monitored Outfall (029)

MSGP02901

Last PM: 4/19/2016

Project: 2016 Q1 Visual
Assessments 5/2/16
(P-MSGP-4732)

Contact:

Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.	MPI			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			RS 5/5/16	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/29/16	04:40		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/29/16	04:40		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/5/16	12:58		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.24 in.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
90	Previous storm ended >72 hours before start of storm? If "Failed", provide reason in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parameters							
110	Is sample colorless? If "Failed", describe.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
120	Is sample odorless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C1			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If	SWSSOLI			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

"other" is chosen from the lookup table, provide description in comments of this line.

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

Documents

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

Labor Report

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

Report:

See attached email from Leonard Samard dated 4/5/13/16 explaining observed foam
MSB12/16

WO ID: MSGP-53808

Page 3 of 3

Signature (collecting sample): Marwin Skendo Date and Time: 4/29/16 04:40

Signature (conducting visual assessment): Marwin Skendo Date and Time: 5/5/16 12:58

CERTIFICATION STATEMENT

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

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

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

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

From: [Sandoval, Leonard Frank](#)
To: [Wheeler, Holly Lynn](#); [Shendo, Marwin Patrick](#)
Cc: [Banar, Alethea K](#); [Stone, Russell](#)
Subject: MSGP visual assessment performed at outfall 029 on 4/29/2016.....
Date: Friday, May 13, 2016 10:02:43 AM

Hydro-grass Technologies helped put together the combination of floc logs that were installed at the 4 drop inlets that discharge to the MSGP sampler in late March before the sampler was turned on in April to begin the 2016 sampling season. Hydro-grass Technologies requested a sediment sample for analysis, which I collected from the concrete retention pond in October 2015, and they used to recommend the floc logs the we installed in an effort to address an exceedance for TSS. I spoke with them yesterday and they believe what was observed in the sample collected on 4/29/2016 was flocculant. Jerry Gallegos and I looked at the water that is in the concrete retention pond yesterday afternoon and there was no visible oily sheen or any white foam.

Leonard

From: Wheeler, Holly Lynn
Sent: Thursday, May 12, 2016 10:44 AM
To: Shendo, Marwin Patrick
Cc: Sandoval, Leonard Frank; Banar, Alethea K
Subject: FW: MSGP visual assessment performed at outfall 029 on 4/29/2016
Importance: High

Marwin,

Leonard indicated he sent you a follow-up e-mail regarding this issue. Can you please forward it to Alethea and I. This issue is documented in Maintenance Connection and needs to be addressed. Anytime foam or a sheen is identified, it requires immediate action so it is critical we address these issues as soon as possible. The 2015 MSGP requires immediate action for pollutants discharged to a watercourse.

Leonard is going to follow-up with a technical representative from Floc-Log company and confirm whether it is typical of the logs to cause a white foam. He will try to get back to us tomorrow. When this issue is resolved, please let Alethea know how it was resolved so it can be closed in Maintenance Connection. There is no corrective action in the Corrective Action Reporting database. If you have any questions, just let me know.

Thanks,

Holly

From: Wheeler, Holly Lynn
Sent: Thursday, May 12, 2016 10:23 AM
To: Sandoval, Leonard Frank
Cc: Banar, Alethea K; Shendo, Marwin Patrick
Subject: FW: MSGP visual assessment performed at outfall 029 on 4/29/2016
Importance: High

Leonard,

What did you find out about the foam identified below? Was a corrective action written up?

Thanks,

Holly

From: Wheeler, Holly Lynn

Sent: Thursday, May 05, 2016 3:59 PM

To: Sandoval, Leonard Frank

Cc: Shendo, Marwin Patrick; Banar, Alethea K; Meadows, Jacob William; Dale, Leslie J; Schilling, Bradley Kirk

Subject: MSGP visual assessment performed at outfall 029 on 4/29/2016

Leonard,

Marwin conducted a visual assessment at TA-60 MRF on a sample that was collected on 4/29/2016 at 04:00. It was identified that it had white foam in the sample. Please evaluate potential cause for this observation and determine what the source is. Immediate action must be taken relative to discharges of potential pollutants from outfalls. Enter a corrective action as follow up in the Oracle Corrective Action Reporting database if it is determined that a pollutant source was released. Please keep Marwin and I informed on the progress of this evaluation as we need to document this information in Maintenance Connection as follow-up to the visual assessment. I am not in tomorrow but Marwin and Brad Schilling will be in if you have any question.

Thanks,

Holly Wheeler

Maintenance Details

Requested: 4/18/2016 6:16:00 PM

Target: 4/20/2016

Procedure: MSGP Quarterly Visual
Assessment (EPC-CP-
Form-1021.2)

Priority/Type: Normal / Preventive

MSGP Program

RG200.5

TA-60 Roads and Grounds

Monitored Outfall (032)

MSGP03201

Last PM: 7/29/2013

Project: MSGP VISUALS- SNOW
EVENT 4-18-16 (P-MSGP-
4708)

Contact:

Phone:

Reason: MSGP Q1 Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
Outfall Information							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP1			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/18/16	10:57		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/18/16	10:57		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/20/16	15:40		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR2	0.21 in total precip from 4/17/16 event. 0.09" 30 min max As of 4/18/16		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If no or unknown, provide reason in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
90	Previous storm ended >72 hours before start of storm? If no, provide reason in comments of this line.	Prev. storm 4/15/16 began 4/15/16 22:40 - 4/16/16	30 min max		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parameters							
110	Is sample colorless? If no, describe.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
120	Is sample odorless? If no, document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Is sample clear? If no, document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Is sample free of floating solids? If no, describe if raw or waste material(s) in the comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If no, document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Is sample free of suspended solids? If no, document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.

170	Is sample foamless after gently shaking? If no describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Is sample devoid of an oil sheen? If no, describe color and thickness (e.g. flecks, globs) in the comments of this line.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	Is sample free of other obvious indicators of pollution? If no, describe in the comments of this line.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Documents

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

Labor Report

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

Report:

WO ID: MSLP-53606

Page 3 of 3

Signature (collecting sample):

MSL

Date and Time:

7/18/16 10:57

Signature (conducting visual assessment):

MSL

Time:

4/20/16 15:40

Date and

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., EPC Group Leader or designee)

Print name and title:

Anthony R. Grieggs, EPC-CP Group Leader

Signature:

A R Grieggs

Date:

6/9/2016

Maintenance Details

Requested: 5/2/2016 12:19:33 PM

Target: 5/31/2016

Procedure: MSGP Quarterly Visual
Assessment (EPC-CP-
Form-1021.2)

Priority/Type: Normal / Inspection

Department: Utilities and
Infrastructure

MSGP Program

RG200.5

TA-60 Roads and Grounds

Monitored Outfall (032)

MSGP03201

Last PM: 4/20/2016

Project: 2016 Q1 Visual
Assessments 5/2/16
(P-MSGP-4732)

Contact:

Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
---	-------------	--------	-------	----------	--------	-----	----------

The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.

Sample information

30	Document the monitoring Period by using the Monitoring Period lookup table.		MP1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		4/29/16 7:25		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		4/29/16 7:25		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		5/4/16 15:26		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		TR1 0.17 in. no solids		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
90	Previous storm ended >72 hours before start of storm? If "Failed", provide reason in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Parameters

110	Is sample colorless? If "Failed", describe.		Yellowish		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120	Is sample odorless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		C1		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

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

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

[illegible]

WO ID: MSGP-53810

Page 3 of 3

Signature (collecting sample): MBLE Date and Time: 4/29/14 7:25

Signature (conducting visual assessment): MBLE Date and Time: 5/4/16 15:26

CERTIFICATION STATEMENT

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

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

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

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



memorandum

*Environmental Protection & Compliance
Division*

To: Leonard Sandoval, DESHS-UIS,
P908

Thru: Terrill Lemke, EPC-CP, (E-File) *TL*

From: Holly Wheeler, EPC-CP, (E-File) *HW*

Phone: 505-667-1312

Symbol: EPC-DO: 17-551

Date:

JAN 12 2018

Subject: National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR053195, Multi-Sector General Permit (MSGP) Quarterly Visual Assessment (QVA) Form for October and November of 2017 for the TA-60 Asphalt Batch Plant

Please find attached the completed MSGP QVA form documenting a visual assessment performed during the fourth quarter of monitoring at the TA-60 Asphalt Batch Plant. Per Parts 3.2.2 and 5.5 of the 2015 MSGP, the signed certification statement and associated QVA form shall be incorporated into your MSGP Stormwater Pollution Prevention Plan (SWPPP).

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

Quarter 1: April – May

Quarter 2: June – July

Quarter 3: August – September

Quarter 4: October - November

The attached QVA form documents the following information required by Part 3.2.2 of the 2015 MSGP and was 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.

EPC-DO: 17-551
Leonard Sandoval

The EPC-CP Group Leader has signed the certification statement to meet the duly authorized signatory requirements for the QVA completed by an EPC-CP representative contained in Enclosure 1.

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

Taunia S. Van Valkenburg, EPC-CP Group Leader
Los Alamos National Security, LLC



Manager Signature

1/12/18

Date

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

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

Facility Name	Sampling Station	Work Order #
TA-60 Asphalt Batch Plant	MSGP04301	MSGP-53593

TWL/HLW: am

Enclosure(s): 1) Quarterly Visual Assessment Form, Fourth Quarter, 2017 Monitoring Year

EPC-DO: 17-551
Leonard Sandoval

Copy: Russell Stone, DESHS-UIS, (E-File)
Adesh-records@lanl.gov, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)

ENCLOSURE 1

Quarterly Visual Assessment Form
Fourth Quarter, 2017 Monitoring Year





EPC-DO: 17-551

Date: JAN 12 2018

Maintenance Details

Requested: 8/9/2017 2:17:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig)
 (EPC-CP-Form-1021.2 3)
Last PM: 6/26/2012
Project: Visual Assessments 10/1/17
 (P-MSGP-5229)
Reason: MSGP Quarterly Visual Assessment (EPC Sig)
Special Instructions: NMR053195

Target: 11/30/2017
Priority/Type: / Inspection
Department: EPC-CP

 MSGP Program
 RG200.5
 TA-60 Asphalt Batch Plant
 Monitored Outfall (043)
MSGP04301

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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/5/17 15:33	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/5/17 15:33	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/6/17 9:02	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain 0.48 in.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parameters					
110	Is sample colorless? If "Failed", describe.	Brown	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120	Is sample odorless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).	SI cloudy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, coarse).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, coarse).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g., 'on the surface' or 'in the sample').		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Labor Report

Completed: 10/6/2017 9:02:00 AM

Report: Marwin Shendo

M Shendo

10/6/2017

Signature / Name

Date

Signature / Name

Date

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

CERTIFICATION STATEMENT

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

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

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

Signature: (See signature on file) Date: _____

APPENDIX G

Spill Reports and Spill Log

Spill Log

Table for Tracking Past and Future Spills

Date	Spill Location	What Spilled	Quantity Spilled	Corrective Action Taken	Plans to Prevent Recurrence
3/26/2007	Asphalt Plant 15,00 gallon tank	Emulsion Oil	165 gallons	Spill was in secondary containment and cleaned up	Tank seals replaced on 4/20/2007
10/5/2011	Asphalt Plant 15,000 gallon tank	Heating transfer oil	15 gallons	Spill was in secondary containment and cleaned up	Replacing fittings that leaked
1/3/2012	Asphalt Batch Plant truck parking area	Diesel	60 gallons	Contained, controlled, and cleaned up	Monitor fueling valves
12/4/2012	Gear box above asphalt loading area	80-90W Gear Oil	Less than 6 oz.	Affected area cleaned up with absorbent and sprayed with micro-blaze	80-90W Gear Oil was replaced with Open Gear Lube as an alternative lubricant
9/23/2014	North of the Asphalt Batch Plant	Hydraulic Fluid	Less than 2 gallons	Affected area cleaned up with absorbent and sprayed with micro-blaze	Monitor refueling of hydraulic fluid reservoir on vehicles to not overfill them
7/5/2016	West of Asphalt Batch Plant	Hydraulic Fluid	Less than half a quart	Affected area cleaned up with absorbent and sprayed with micro-blaze	Check vehicles used in the area for leaks
5/17/2017	SE corner or concrete secondary containment	Hydraulic Fluid	Less than 6 ounces	Affected area cleaned up with absorbent and sprayed with micro-blaze	Check vehicles used in the area for leaks
12/18/2017	South side of Eniwetok Drive & NW of ABP	Hydraulic Fluid	Less than 1 quart	Affected area on asphalt sprayed with micro-blaze.	Check vehicles used in the area for leaks

TA-60 ABP

CAR # 1254

Los Alamos National Laboratory
Environmental Compliance Programs (ENV-CP)
Unplanned Release Report

Form Completed By: Leonard F. Sandoval		Telephone: 667-3557	Group: DESHS-UIS
Spill Details		Spill Owner (Specify): <input checked="" type="checkbox"/> LANS, LLC <input type="checkbox"/> Subcontractor:	
Date of Spill/Date Spill Discovered: 12/18/2017			
Location: South side of Eniwetok Drive and NW of TA-60 Asphalt Batch Plant			
Material Spilled: <div style="display: flex; justify-content: space-between;"><div><input checked="" type="checkbox"/> Hydraulic Fluid <input type="checkbox"/> Potable Water <input type="checkbox"/> Diesel</div><div><input type="checkbox"/> Anti-freeze/coolant <input type="checkbox"/> Steam Condensate <input type="checkbox"/> Lubricants/oils <input type="checkbox"/> Refrigerant Oil</div><div><input type="checkbox"/> Gasoline <input type="checkbox"/> Other: _____</div></div>			
Volume Spilled: Less than 1 quart		Waste Volume Generated: None	
Source of Spill: Vehicle ID: _____ Equipment ID: _____ <div style="display: flex; justify-content: space-between;"><div><input type="checkbox"/> Hydraulic Line <input type="checkbox"/> Potable Water Line <input type="checkbox"/> Fire Suppression System <input type="checkbox"/> Fuel Tank</div><div><input type="checkbox"/> Radiator <input type="checkbox"/> Condensate Line <input checked="" type="checkbox"/> Other: <u>Staining on asphalt</u></div></div>			
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: Several small hydraulic fluid stains on asphalt were found where the dump trucks are parked at the end of the day. The affected area's on asphalt were sprayed with micro-blaze.			
Date Corrective Actions Completed: 12/19/2017			
Did the spill enter or impact any of the following? (Check as many as apply) <div style="display: flex; justify-content: space-between;"><div><input type="checkbox"/> RCRA Treatment Storage Disposal Facility <input type="checkbox"/> RCRA Satellite Accumulation Area <input type="checkbox"/> RCRA <90 Day Storage Area</div><div><input type="checkbox"/> Floor Drain, if so please indicate affected facility <input type="checkbox"/> Watercourse/drainage area, if so please indicate <input type="checkbox"/> Solid Waste Management Unit/Area of Concern, if so please indicate <input checked="" type="checkbox"/> None</div></div>			
Did the spill occur inside or outside a building? <input type="checkbox"/> Inside <input checked="" type="checkbox"/> Outside			
Did the spill occur on: (Check as many as apply) <div style="display: flex; justify-content: space-between;"><div><input type="checkbox"/> Concrete <input type="checkbox"/> Carpeted Floor <input type="checkbox"/> Tile <input type="checkbox"/> Wooden floor/deck</div><div><input checked="" type="checkbox"/> Asphalt <input type="checkbox"/> Graveled/Rocky Area <input type="checkbox"/> Soil/Vegetated Area <input type="checkbox"/> Other: _____</div></div>			
Samples Collected: <input checked="" type="checkbox"/> None <input type="checkbox"/> Water		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: Leonard F. Sandoval		Organization: DESHS-UIS	Date: 12/19/2017
Certification:			
Completed by ENV-CP Personnel			
Date Received:	Severity Index:	Causal Analysis:	<input type="checkbox"/> Non-Reportable <input type="checkbox"/> Reportable

**Los Alamos National Laboratory
Environmental Compliance Programs (ENV-CP)
Unplanned Release Report**

CAR# 1100

Form Completed By:		Telephone:	Group:
Leonard F. Sandoval		667-3557	DESHS-UIS
Spill Details		Spill Owner (Specify): <input checked="" type="checkbox"/> LANS, LLC <input type="checkbox"/> Subcontractor:	
Date of Spill/Date Spill Discovered: 5/17/2017			
Location: Southwest corner of concrete secondary containment at TA-60 Asphalt Batch Plant			
Material Spilled: <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input checked="" type="checkbox"/> Hydraulic Fluid <input type="checkbox"/> Potable Water <input type="checkbox"/> Diesel </div> <div style="width: 30%;"> <input type="checkbox"/> Anti-freeze/coolant <input type="checkbox"/> Steam Condensate <input type="checkbox"/> Lubricants/oils <input type="checkbox"/> Refrigerant Oil </div> <div style="width: 30%;"> <input type="checkbox"/> Gasoline <input type="checkbox"/> Other: _____ </div> </div>			
Volume Spilled: Less than 6 ounces		Waste Volume Generated: Small trash bag	
Source of Spill: <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Vehicle ID: _____ Equipment ID: _____ </div> <div style="width: 30%;"> <input type="checkbox"/> Hydraulic Line <input type="checkbox"/> Potable Water Line <input type="checkbox"/> Fire Suppression System <input type="checkbox"/> Fuel Tank </div> <div style="width: 30%;"> <input type="checkbox"/> Radiator <input type="checkbox"/> Condensate Line <input checked="" type="checkbox"/> Other: Staining on base coarse </div> </div>			
Describe the spill response in chronological order. Include response personnel, steps taken to contain the spill, and steps/spill control equipment used to clean it up. Please indicate if corrective actions have been completed and describe actions taken to prevent spill recurrence: A small trash bag of contaminated soil was collected as N. M. Special Waste and the affected area on base coarse was sprayed with micro-blaze.			
Date Corrective Actions Completed: 5/17/2017			
Did the spill enter or impact any of the following? (Check as many as apply) <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input type="checkbox"/> RCRA Treatment Storage Disposal Facility <input type="checkbox"/> RCRA Satellite Accumulation Area <input type="checkbox"/> RCRA <90 Day Storage Area </div> <div style="width: 70%;"> <input type="checkbox"/> Floor Drain, if so please indicate affected facility <input type="checkbox"/> Watercourse/drainage area, if so please indicate <input type="checkbox"/> Solid Waste Management Unit/Area of Concern, if so please indicate <input checked="" type="checkbox"/> None </div> </div>			
Did the spill occur inside or outside a building? <input type="checkbox"/> Inside <input checked="" type="checkbox"/> Outside			
Did the spill occur on: (Check as many as apply) <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input type="checkbox"/> Concrete <input type="checkbox"/> Carpeted Floor <input type="checkbox"/> Tile <input type="checkbox"/> Wooden floor/deck </div> <div style="width: 70%;"> <input type="checkbox"/> Asphalt <input type="checkbox"/> Graveled/Rocky Area <input type="checkbox"/> Soil/Vegetated Area <input checked="" type="checkbox"/> Other: Base Coarse </div> </div>			
Samples Collected: <input checked="" type="checkbox"/> None <input type="checkbox"/> Water		<input type="checkbox"/> Soil <input type="checkbox"/> Air <input type="checkbox"/> 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: Leonard F. Sandoval		Organization: DESHS-UIS	Date: 5/17/2017
Certification:			
Completed by ENV-CP Personnel <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Form Received: </div> <div style="width: 30%;"> Severity Index: </div> <div style="width: 30%;"> Causal Analysis: </div> <div style="width: 10%;"> <input type="checkbox"/> Non-Reportable <input type="checkbox"/> Reportable </div> </div>			

Los Alamos National Laboratory
Environmental Compliance Programs (ENV-CP)
Unplanned Release Report

CAR # 923

Form Completed By:		Telephone:		Group:	
Leonard F. Sandoval		667-3557		DESHS-UIS	
Spill Details		Spill Owner (Specify): <input checked="" type="checkbox"/> LANS, LLC		<input type="checkbox"/> Subcontractor:	
Date of Spill/Date Spill Discovered: 7/5/2016					
Location: Just to the West of the TA-60 Asphalt Batch Plant					
Material Spilled:		<input type="checkbox"/> Anti-freeze/coolant <input type="checkbox"/> Steam Condensate <input type="checkbox"/> Lubricants/oils <input type="checkbox"/> Refrigerant Oil		<input type="checkbox"/> Gasoline <input type="checkbox"/> Other: _____	
<input checked="" type="checkbox"/> Hydraulic Fluid <input type="checkbox"/> Potable Water <input type="checkbox"/> Diesel					
Volume Spilled: Less than 1/2 a quart		Waste Volume Generated: 5 Gallon Bucket			
Source of Spill:		<input type="checkbox"/> Hydraulic Line <input type="checkbox"/> Potable Water Line <input type="checkbox"/> Fire Suppression System <input type="checkbox"/> Fuel Tank		<input type="checkbox"/> Radiator <input type="checkbox"/> Condensate Line <input checked="" type="checkbox"/> Other: Staining on base coarse	
Vehicle ID: _____					
Equipment ID: _____					
<p>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:</p> <p>A 5 gallon bucket of contaminated soil was collected as N. M. Special Waste and the affected area on base coarse was sprayed with micro-blaze.</p>					
Date Corrective Actions Completed: 7/5/2016					
Did the spill enter or impact any of the following? (Check as many as apply) <input type="checkbox"/> RCRA Treatment Storage Disposal Facility <input type="checkbox"/> RCRA Satellite Accumulation Area <input type="checkbox"/> RCRA <90 Day Storage Area		<input type="checkbox"/> Floor Drain, if so please indicate affected facility <input type="checkbox"/> Watercourse/drainage area, if so please indicate <input type="checkbox"/> Solid Waste Management Unit/Area of Concern, if so please indicate <input checked="" type="checkbox"/> None			
Did the spill occur inside or outside a building?		<input type="checkbox"/> Inside <input checked="" type="checkbox"/> Outside			
Did the spill occur on: (Check as many as apply)		<input type="checkbox"/> Concrete <input type="checkbox"/> Carpeted Floor <input type="checkbox"/> Tile <input type="checkbox"/> Wooden floor/deck		<input type="checkbox"/> Asphalt <input type="checkbox"/> Graveled/Rocky Area <input type="checkbox"/> Soil/Vegetated Area <input checked="" type="checkbox"/> Other: Base Coarse	
Samples Collected: <input checked="" type="checkbox"/> None <input type="checkbox"/> Water		<input type="checkbox"/> Soil <input type="checkbox"/> Air <input type="checkbox"/> 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: Leonard F. Sandoval		Organization: DESHS-UIS		Date: 7/5/2016	
Certification:		<small>Digitally signed by Leonard F. Sandoval DN: cn=Leonard F. Sandoval, o=DOE, ou=UAMS, ou_email=lsandoval@lanl.gov, c=US Date: 2016.07.05 13:38:18 -0600</small>			
Completed by ENV-CP Personnel		Severity Index:		<input type="checkbox"/> Non-Reportable <input type="checkbox"/> Reportable	
Date Received:		Causal Analysis:			

**Los Alamos National Laboratory
Environmental Compliance Programs (ENV-CP)
Non-Reportable Release Form**

CAR#606

Form Completed By:	Telephone:	Group:
Leonard F. Sandoval	667-3557	DSESH-UIMS

Spill Details	Spill Owner (Specify): <input checked="" type="checkbox"/> LANS, LLC <input type="checkbox"/> Subcontractor:
----------------------	---

Date of Spill/Date Spill Discovered: 9/23/2014

Location: TA-60 Sigma Mesa Just North of Asphalt Batch Plant

Material Spilled:	<input type="checkbox"/> Anti-freeze/coolant <input type="checkbox"/> Steam Condensate <input type="checkbox"/> Lubricants/oils <input type="checkbox"/> Refrigerant Oil	<input type="checkbox"/> Gasoline <input type="checkbox"/> Other: _____
<input checked="" type="checkbox"/> Hydraulic Fluid <input type="checkbox"/> Potable Water <input type="checkbox"/> Diesel		

Volume Spilled: Less than 2 gallons	Waste Volume Generated: 20 gallon container of absorbent
--	---

Source of Spill: Vehicle ID: G82-0534B Equipment ID: _____	<input type="checkbox"/> Hydraulic Line <input type="checkbox"/> Potable Water Line <input type="checkbox"/> Fire Suppression System <input type="checkbox"/> Fuel Tank <input type="checkbox"/> Radiator <input type="checkbox"/> Condensate Line <input checked="" type="checkbox"/> Other: Hydraulic Fluid Reservoir
---	---

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:

Hydraulic fluid reservoir on dumptruck G82-0534B leaked onto the asphalt pad just north of the Asphalt Batch Plant. The reservoir was apparently overfilled with hydraulic fluid & as a result of increased pressure in the system caused the hydraulic fluid to leak out the filler cap to the reservoir. The affected area on asphalt was cleaned up using absorbent & micro-blaze. Care needs to be taken not to overfill the hydraulic fluid reservoir in order to prevent future leaks.

Date Corrective Actions Completed: 9/23/2014

Did the spill enter or impact any of the following? (Check as many as apply)	<input type="checkbox"/> Floor Drain, if so please indicate affected facility <input type="checkbox"/> Watercourse/drainage area, if so please indicate <input type="checkbox"/> Solid Waste Management Unit/Area of Concern, if so please indicate <input checked="" type="checkbox"/> None
<input type="checkbox"/> RCRA Treatment Storage Disposal Facility <input type="checkbox"/> RCRA Satellite Accumulation Area <input type="checkbox"/> RCRA <90 Day Storage Area	

Did the spill occur inside or outside a building?	<input type="checkbox"/> Inside <input checked="" type="checkbox"/> Outside
--	---

Did the spill occur on: (Check as many as apply)	<input type="checkbox"/> Concrete <input type="checkbox"/> Carpeted Floor <input type="checkbox"/> Tile <input type="checkbox"/> Wooden floor/deck <input checked="" type="checkbox"/> Asphalt <input type="checkbox"/> Graveled/Rocky Area <input type="checkbox"/> Soil/Vegetated Area <input type="checkbox"/> Other: _____
--	---

Samples Collected:	<input type="checkbox"/> Soil <input type="checkbox"/> Air <input type="checkbox"/> Metals	<input type="checkbox"/> General Chemistry <input type="checkbox"/> SVOCs <input type="checkbox"/> Other: _____
<input checked="" type="checkbox"/> None <input type="checkbox"/> Water		

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: Leonard F. Sandoval Certification: U&I DEP	Organization: DSESH-UIMS Date Received by ENV-CP:	Date: 9/23/2014
--	--	------------------------

APPENDIX H

Storm Water Monitoring Records and Results (Current Permit)

Permitted Facility: TA-60 Asphalt Batch Sampling Data Summary

CY 2016

No stormwater discharge occurred at monitored outfall 043 in 2016. Therefore, no samples were collected and no data are available.

CY 2017

Effluent limitation guidelines parameters must be monitored annually and may not be discontinued.

Monitored Outfall	Discontinue Monitoring		Continue Monitoring								
	Average of four monitoring values did not exceed benchmark; quarterly monitoring discontinued per Section 6.2.1.2	Impaired water constituent was not detected in storm water discharge; annual monitoring discontinued per Section 6.2.4.1.	Fewer than four quarterly samples have been collected in current sequence. Average concentration is not mathematically certain to exceed benchmark.	Average concentration mathematically certain to exceed benchmark.	Average of four quarterly monitoring values exceeded benchmark.	Impaired water constituent was detected, but did not exceed New Mexico Water Quality criterion.	Impaired water constituent exceeded New Mexico Water Quality criterion.	Effluent limitation guidelines constituent was detected, but did not exceed daily limit.	Effluent limitation guidelines constituent exceeded daily limit.	Effluent limitation guidelines constituent was detected, but did not exceed 30-day average limit.	Effluent limitation guidelines parameter exceeded 30-day average limit.
043		Total Aroclors, Adjusted Gross Alpha	TSS		—	Al, Cu			TSS	Oil and Grease, pH	

Monthly Discharge Monitoring Reports



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

Date: OCT 08 2015
Symbol: ENV-DO-15-0288
LA-UR: 15-27824
Locates Action No.: N/A

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

To Whom It May Concern:

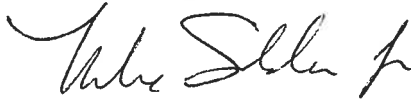
Subject: National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR05GB21, Multi-Sector General Permit (MSGP) Industrial Discharge Monitoring Report (MDMR) For August 8, 2015

Enclosed is Los Alamos National Laboratory's MDMR (Enclosure 1) for August 8, 2015, as required under MSGP Permit Tracking No. NMR05GB21. This MDMR starts the third quarter of the 2015 monitoring year and contains analytical results for effluent limitation guidelines (ELG) monitoring at outfall 60-ABP-1 and benchmark monitoring at 60-MRF-1.

Total Suspended Solids (TSS) exceeded the daily maximum effluent limit. This monitoring sample was collected before analytical results were received for prior ELG monitoring that exceeded the 30-day average effluent limit for TSS. An Exceedance Report for Numeric Effluent Limits was sent to EPA on 9/17/2015 (EPA-DO-15-0254, LA-UR-15-27266). Corrective actions are identified in the report.

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

Sincerely,



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

ARG:HLW/lm

Enclosure: 1. NPDES Permit Tracking No. NMR05GB21, MDMR for August 8, 2015

Cy: Nasim Jahan, USEPA/Region 6, Dallas, TX, (E-File)
Bruce Yurdin, NMED/SWQB, Santa Fe, NM, (E-File)
Michelle Hunter, NMED/GWQB, Santa Fe, NM, (E-File)
Gene E. Turner, LASO-NS-LP, (E-File)
Jorden Arnsward, LASO-NS-PI, (E-File)
Kirsten Lanskey, LASO-SUP, (E-File)
Craig Leasure, PADOPS, (E-File)
Amy E. De Palma, PADOPS, (E-File)
Michael T. Brandt, ADESH, (E-File)
Raeanna Sharp-Geiger, ADESH, (E-File)
Alison M. Dorries, ENV-DO, (E-File)
Michael T. Saladen, ENV-CP, (E-File)
Holly L. Wheeler, ENV-CP, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
env-correspondence@lanl.gov

ENCLOSURE 1

**NPDES Permit Tracking No. NMR05GB21,
MDMR for August 8, 2015**

ENV-DO-15-0288

LA-UR-15-27824

Date: OCT 0 8 2015



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460
MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (MDMR)

Form Approved.
OMB No. 2040-0004

Reason(s) for Submission (Check all that apply):

- ☒ Submitting monitoring data (Fill in all Sections).
☐ Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C.1, D, and F).
☐ Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, F and include date of status change in comment field in Section E.4).
☐ Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section E.4).
☐ Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B and F).

A. Permit Tracking Number: NMR05GB21

Note: Read instructions before completing this Form.

B. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Location:

a. Street: Bikini Atoll Rd. SM30 K490b. City: Los Alamosc. State: NM d. Zip Code: 87545

3. Additional Facility Information (Optional):

Contact Name: Anthony GrieggsEmail: grieggst@lanl.govPhone: 505-667-0666 Ext.

4. MDMR Preparer (Complete if MDMR was prepared by someone other than the person signing the certification in Section F)

Prepared by: Holly WheelerOrganization: ENV-CPEmail: hbenenson@lanl.govPhone: 505-667-1312 Ext.

C. Discharge Information

1. Identify monitoring period:

☒ Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

☐ Quarter 1 (April 1 - June 30)☐ Quarter 1: From 04/01 To 05/31☐ Quarter 2 (July 1 - September 30)☐ Quarter 2: From 06/01 To 07/31☐ Quarter 3 (October 1 - December 31)☒ Quarter 3: From 08/01 To 09/30☐ Quarter 4 (January 1 - March 31)☐ Quarter 4: From 10/01 To 11/302. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc? ☒ Yes (Complete line item 2.a.) ☐ No (Skip to Section D)2a. What is the hardness level of the receiving water? 113 mg/L

D. Outfall Information

1. How many outfall(s) are identified in your SWPPP? 23 List name of outfall(s) required to be monitored in table below.2. Do any of your outfalls discharge substantially identical effluents? ☒ YES ☐ NO

2a. If yes, for each monitored outfall, indicate outfall names that are substantially identical in table below.

3.A. Monitored Outfall Name*	3.B. Substantially Identical Outfalls (List name(s) of outfall(s) substantially identical to outfall in 3.A. (if applicable))	3.C. No Discharge?
3-MFS-1	3-MFS-2	<input checked="" type="checkbox"/>
3-PSP-1	3-PSP-2	<input type="checkbox"/>
3-PSP-5	3-PSP-3, 3-PSP-4, 3-PSP-7	<input checked="" type="checkbox"/>
3-PSP-8	3-PSP-7.5	<input type="checkbox"/>
3-Sigma-6	3-Sigma-1, 3-Sigma-2, 3-Sigma-3, 3-Sigma-4, 3-Sigma-5, 3-Sigma-7	<input checked="" type="checkbox"/>

*Reference attachment if additional space needed to complete the table.


Section D, continued on page 2

D. Outfall Information (continued)

3.A. Monitored Outfall Name	3.B. Substantially Identical Outfalls [List name(s) of outfalls substantially identical to outfall in 3.A. (if applicable)]	3.C. No Discharge?
3-Sigma-8		<input checked="" type="checkbox"/>
3-TS-1		<input checked="" type="checkbox"/>
54-G-1	54-G-1a	<input checked="" type="checkbox"/>
54-G-2	54-G-2a, 54-G-2b	<input checked="" type="checkbox"/>
54-G-3		<input checked="" type="checkbox"/>
54-G-4	54-G-4a, 54-G-4b, 54-G-4c, 54-G-4d, 54-G-4e, 54-G-4f, 54-G-4g, 54-G-4h,	<input checked="" type="checkbox"/>
	54-G-4i, 54-G-4j, 54-G-4k, 54-G-4l, 54-G-4m, 54-G-4n, 54-G-4o	<input type="checkbox"/>
54-L-1		<input type="checkbox"/>
54-MFW-1		<input checked="" type="checkbox"/>
54-RANT-1	54-RANT-1a, 54-RANT-1b, 54-RANT-1c, 54-RANT-1d	<input checked="" type="checkbox"/>
60-ABP-1		<input type="checkbox"/>
60-HEY-2	60-HEY-1, 60-HEY-3, 60-HEY-5, 60-HEY-6	<input type="checkbox"/>
60-MRF-1		<input type="checkbox"/>
60-RG-1	60-RG-2	<input checked="" type="checkbox"/>
60-RG-10	60-RG-11, 60-RG-9	<input checked="" type="checkbox"/>
60-RG-13	60-RG-12	<input checked="" type="checkbox"/>
60-RG-3	60-RG-4, 60-RG-5, 60-RG-6	<input type="checkbox"/>
60-RG-8	60-RG-7	<input checked="" type="checkbox"/>
60-WH-1	60-WH-2, 60-WH-3	<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>

Comments:

3-PSP-1 : Visual assessment only performed. Quarterly monitoring complete. 3-PSP-8 : Visual assessment only performed. 54-L-1 : Flow indeterminate. Automated sampler inactive. 60-HEY-2 : Visual assessment only performed. Quarterly monitoring complete. 60-RG-3 : Visual assessment only performed. Quarterly monitoring complete. 60-WH-1 : Flow indeterminate. Quarterly monitoring complete. Automated sampler inactive.

		UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (MDMR)		Form Approved. OMB No. 2040-0004				
E. Monitoring Information				Note: Make additional copies of this form as necessary.				
1. Permit Tracking Number: NMR05GB211								
2. Nature of Discharge: <input checked="" type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt								
2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): .2 2.c. Time since previous measurable storm event (days): 1								
3.a. Outfall Name	3.b. Monitoring Type (QBM, ELG, S/T, I, O)*	3.c. Parameter	3.d. Quality or Concentration	3.e. Units	3.f. Results Description	3.g. Collection Date	3.h. Exceedance due to natural background pollutant levels	3.i. No further pollutant reductions achievable?
60-ABP-1	ELG	Oil and Grease	ND		1430 ug/L	08-Aug-15	<input type="checkbox"/>	<input type="checkbox"/>
60-ABP-1	ELG	Total Suspended Solids (TSS)	61.6	mg/L		08-Aug-15	<input type="checkbox"/>	<input type="checkbox"/>
60-ABP-1	ELG	pH-Field Measurement	8.57	SU		08-Aug-15	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>
* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or Tribal-specific monitoring; (I) - Impaired waters monitoring; (O) -Other monitoring as required by EPA								
4. Comment and/or Explanation of Any Violations (Reference all attachments here) 60-ABP-1 : TSS exceeded the daily maximum effluent limit. This monitoring sample was collected before analytical results were received for prior ELG monitoring that exceeded the 30-day average for TSS. An Exceedance Report for Numeric Effluent Limits was sent to EPA on 9/17/2015 (ENV-DO-15-0254), LA-UR # 15-27266). Corrective actions are identified in the report. The field measurement for pH did not meet USEPA Standard Method 150.2.								
F. Certification								
Anthony Grieggs, ENV-CP Group Leader		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]		10/7/15	
Typed or Printed Name/Title of Principal Executive Officer or Authorized Agent					Signature of Principal Executive Officer or Authorized Agent		Date	
Email of Principal Executive Officer or Authorized Agent: grieggst@lanl.gov								

Form Approved, OMB No. 2040-0004

Note: Make additional copies of this form as necessary.

[illegible]

60-MRF-1 : TSS is mathematically certain to exceed the benchmark value

Date _____

Email of Principal Executive Officer or Authorized Agent: grieggst@lanl.gov



Environmental Protection & Compliance Division (EPC-DO)

Environmental Compliance Programs (EPC-CP)

PO Box 1663, K490

Los Alamos, New Mexico 87545

(505) 667-0666

Date: DEC 22, 2016

Symbol: EPC-DO-16-394

LA-UR: 16-29645

Locates Action No.: N/A

U.S. EPA Region 6

NPDES Stormwater Program (WQ-PP)

1445 Ross Avenue, Suite 1200

Dallas, TX 75202-2733

Subject: National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR053195, Multi-Sector General Permit (MSGP) Industrial "No Discharge" Monitoring Report (MDMR) for the Fourth Quarter (October 1 through November 30, 2016)

To whom it may concern:

Enclosed is Los Alamos National Laboratory's "No Discharge" MDMR (Enclosure 1) for the fourth quarter (October 1 through November 30, 2016) of the calendar year, as required under MSGP Permit Tracking No. NMR053195, submitted on behalf of Los Alamos National Security LLC.

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

Sincerely,

Anthony R. Grieggs

Group Leader

Environmental Compliance Programs (EPC-CP)

Los Alamos National Security, LLC

ARG:TWL:HLW/eim

Enclosure: 1. NPDES Permit Tracking No. NMR053195, MDMR for the Fourth Quarter (October 1 through November 30, 2016)

Cy: Nasim Jahan, EPA Region 6, Dallas TX (E-File)
Helen Nguyen, EPA Region 6, Dallas TX (E-File)
Craig S. Leasure, PADOPS, (E-File)
William R. Mairson, PADOPS, (E-File)
Michael T. Brandt, ADESH, (E-File)
Raeanna Sharp-Geiger, ADESH, (E-File)
Karen Armijo, DOE, (E-File)
John P. McCann, EPC-DO, (E-File)
Anthony R. Grieggs, EPC-CP, (E-File)
Terrill W. Lemke, EPC-CP, (E-File)
Holly L. Wheeler, EPC-CP, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)
adesh-records@lanl.gov, (E-File)

ENCLOSURE 1

NPDES Permit Tracking No. NMR053195, "No
Discharge" MDMR for the Fourth Quarter
(October 1 through November 30, 2016)

EPC-DO-16-394

LA-UR-16-29645

DEC 22, 2016

Date: _____



A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from 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: Everett SpencerDate approval obtained: 06/17/2016*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at <http://www.epa.gov/netdmr/>**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

☐ Submitting monitoring data (Fill in all Sections).☒ Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).☐ Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).☐ Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).☐ Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490City: Los AlamosState: NM ZIP Code: 87545 - Phone: 505 667 0666E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

First Name, Middle Initial, Last Name: Holly L. WheelerOrganization: EPC-CPPhone: 505 667 1312Ext. E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: ☒ Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:
- | | |
|--|--|
| <input type="checkbox"/> Quarter 1 (January 1 - March 31) | <input type="checkbox"/> Quarter 1: From <u>04</u> / <u>01</u> To <u>05</u> / <u>31</u> |
| <input type="checkbox"/> Quarter 2 (April 1 - June 30) | <input type="checkbox"/> Quarter 2: From <u>06</u> / <u>01</u> To <u>07</u> / <u>31</u> |
| <input type="checkbox"/> Quarter 3 (July 1 - September 30) | <input type="checkbox"/> Quarter 3: From <u>08</u> / <u>01</u> To <u>09</u> / <u>30</u> |
| <input type="checkbox"/> Quarter 4 (October 1 - December 31) | <input checked="" type="checkbox"/> Quarter 4: From <u>10</u> / <u>01</u> To <u>11</u> / <u>30</u> |
2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? ☒ Yes (Skip to 3) ☐ No (Skip to 4)
3. What is the hardness level of the receiving water? 57
4. Does your facility discharge into any saltwater receiving waters? ☐ Yes ☒ No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: ☐ Rainfall (Complete line items 2.a., 2.b., & 2.c.) ☐ Snowmelt

2.a. Duration of the rainfall event (hours):

2.b. Rainfall amount (inches):

2.c. Time since previous measurable storm event (days):

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
004	<input type="checkbox"/> Substantially identical to outfall:	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

004: NODI F Automated sampler tripped, however there was insufficient flow for sample collection.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: <input type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt										
2.a. Duration of the rainfall event (hours):			2.b. Rainfall amount (inches):			2.c. Time since previous measurable storm event (days):				
3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
012	<input type="checkbox"/> Substantially identical to outfall:	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>
011	<input checked="" type="checkbox"/> Substantially identical to outfall: 012	<input type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

012: NODI C No discharge.

F. Monitoring Information										
Note: Make additional copies of this form as necessary.										
1. Nature of Discharge: <input type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt										
2.a. Duration of the rainfall event (hours): 2.b. Rainfall amount (inches): 2.c. Time since previous measurable storm event (days):										
3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
020	<input type="checkbox"/> Substantially identical to outfall:	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

020: NODI C No discharge.

F. Monitoring Information										
Note: Make additional copies of this form as necessary.										
1. Nature of Discharge: <input type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt										
2.a. Duration of the rainfall event (hours):			2.b. Rainfall amount (inches):			2.c. Time since previous measurable storm event (days):				
3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
031	<input type="checkbox"/> Substantially identical to outfall:	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>
030	<input checked="" type="checkbox"/> Substantially identical to outfall: 031	<input type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

031: NODI F Automated sampler tripped, however there was insufficient flow for sample collection.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: ☐ Rainfall (Complete line items 2.a., 2.b., & 2.c.) ☐ Snowmelt

2.a. Duration of the rainfall event (hours):

2.b. Rainfall amount (inches):

2.c. Time since previous measurable storm event (days):

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
036	<input type="checkbox"/> Substantially identical to outfall:	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>
037	<input checked="" type="checkbox"/> Substantially identical to outfall: 036	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

036: NODI C No discharge.

F. Monitoring Information										
Note: Make additional copies of this form as necessary.										
1. Nature of Discharge: <input type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt										
2.a. Duration of the rainfall event (hours):			2.b. Rainfall amount (inches):			2.c. Time since previous measurable storm event (days):				
3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
039	<input type="checkbox"/> Substantially identical to outfall:	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>
038	<input checked="" type="checkbox"/> Substantially identical to outfall: 039	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>
040	<input checked="" type="checkbox"/> Substantially identical to outfall: 039	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

039: NODI C No discharge.

F. Monitoring Information										
Note: Make additional copies of this form as necessary.										
1. Nature of Discharge: <input type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt										
2.a. Duration of the rainfall event (hours):			2.b. Rainfall amount (inches):			2.c. Time since previous measurable storm event (days):				
3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
043	<input type="checkbox"/> Substantially identical to outfall:	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

043: NODI C No discharge.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: ☐ Rainfall (Complete line items 2.a., 2.b., & 2.c.) ☐ Snowmelt

2.a. Duration of the rainfall event (hours): 2.b. Rainfall amount (inches): 2.c. Time since previous measurable storm event (days):

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
053	<input type="checkbox"/> Substantially identical to outfall:	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>
065	<input checked="" type="checkbox"/> Substantially identical to outfall: 053	<input type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>
066	<input checked="" type="checkbox"/> Substantially identical to outfall: 053	<input type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

053: NODI C No discharge.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: ☐ Rainfall (Complete line items 2.a., 2.b., & 2.c.) ☐ Snowmelt

2.a. Duration of the rainfall event (hours):

2.b. Rainfall amount (inches):

2.c. Time since previous measurable storm event (days):

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
073	<input type="checkbox"/> Substantially identical to outfall:	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>
074	<input checked="" type="checkbox"/> Substantially identical to outfall: 073	<input type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

073: NODI F Automated sampler tripped, however there was insufficient flow for sample collection.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: <input type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt										
2.a. Duration of the rainfall event (hours):			2.b. Rainfall amount (inches):			2.c. Time since previous measurable storm event (days):				
3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
075	<input type="checkbox"/> Substantially identical to outfall:	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

075: NODI C No discharge.

G. Certification

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

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature: 

Date 12/22/2016

E-mail: grieggst@lanl.gov



***Environmental Protection & Compliance Division
Environmental Compliance Programs
Los Alamos National Laboratory***
PO Box 1663, K491
Los Alamos, New Mexico 87545
(505) 667-2211

DEC 13 2017

Date:
Symbol: EPC-DO: 17-543
LA-UR: 17-31206
Locates Action No.: N/A

U.S. EPA Region 6
NPDES Stormwater Program (WQ-PP)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Subject: National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR053195, Multi-Sector General Permit (MSGP) Industrial Discharge Monitoring Reports (MDMRs) for 9/28/2017, 9/29/2017 and 10/05/2017

To whom it may concern:

Enclosed are Los Alamos National Laboratory's MDMRs (Enclosure 1) for 9/28/2017, 9/29/2017 and 10/05/2017, as required under MSGP Permit Tracking No. NMR053195. These reports are being submitted on behalf of Los Alamos National Security, LLC and contain analytical results for impaired water and quarterly benchmark monitoring at outfalls 002, 009, 020, 043, 047, 051, 053, 072 and 075.

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

Sincerely,

Taunia S. Van Valkenburg
Group Leader

TSV/TWL/HLW: eim

Enclosure: 1) NPDES Permit Tracking No. NMR053195, MDMRs for 9/28/2017, 9/29/2017 and 10/05/2017

Copy: Helen Nguyen, EPA Region 6, Dallas TX (E-File)
Nasim Jahan, EPA Region 6, Dallas TX (E-File)
Michelle Hunter, NMED/GWQB, Santa Fe, NM (E-File)
Shelly Lemon, NMED/SWQB, Santa Fe, NM (E-File)
Karen Armijo, NA-LA, (E-File)
Arturo Duran, EM-SG, (E-File)
David Rhodes, EM-SG, (E-File)
Craig Leasure, PADOPS, (E-File)
William Mairson, PADOPS, (E-File)
Michael Brandt, ADESH, (E-File)
Raeanna Sharp-Geiger, ADESH, (E-File)
Bruce Robinson, ADEM-PO, (E-File)
Stephanie Archuleta, DESHF-DO, (E-File)
Theresa Cull, DESHS-DO, (E-File)
Stephanie Griego, EWMO-DO, (E-File)
Clifford Kirkland, STO-DO, (E-File)
Andrew Erickson, UI-DO, (E-File)
Robert Stokes, DESHS-EWMS, (E-File)
Garry Schramm, DESHF-STO, (E-File)
Russel Stone, DESHS-UIS, (E-File)
Victoria Baca, DESHS-EWMS, (E-File)
Marc Gallegos, DESHF-STO, (E-File)
Jillian Burgin, DESHS-UIS, (E-File)
Leonard Sandoval, DESHS-UIS, (E-File)
Terrill Lemke, EPC-CP, (E-File)
Holly Wheeler, EPC-CP, (E-File)
Leslie Dale, EPC-CP, (E-File)
Ellena Martinez, EPC-CP, (E-File)
Adesh-records@lanl.gov, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locateteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)

ENCLOSURE 1

NPDES Permit Tracking No. NMR053195, MDMRs for
9/28/2017, 9/29/2017 and 10/05/2017

EPC-DO: 17-543

LA-UR-17-31206

Date: DEC 13 2017



A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from 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: Everett SpencerDate approval obtained: 06/17/2016*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at <http://www.epa.gov/netdmr/>**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

☒ Submitting monitoring data (Fill in all Sections).☐ Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).☐ Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).☐ Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).☐ Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490City: Los AlamosState: NMZIP Code: 87545Phone: 505 667 0666E-mail: tauniav@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

First Name, Middle Initial, Last Name: Holly L. WheelerOrganization: EPC-CPPhone: 505 667 1312

Ext. _____

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: ☒ Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:
- | | |
|--|--|
| <input type="checkbox"/> Quarter 1 (January 1 - March 31) | <input type="checkbox"/> Quarter 1: From <u>04</u> / <u>01</u> To <u>05</u> / <u>31</u> |
| <input type="checkbox"/> Quarter 2 (April 1 - June 30) | <input type="checkbox"/> Quarter 2: From <u>06</u> / <u>01</u> To <u>07</u> / <u>31</u> |
| <input type="checkbox"/> Quarter 3 (July 1 - September 30) | <input checked="" type="checkbox"/> Quarter 3: From <u>08</u> / <u>01</u> To <u>09</u> / <u>30</u> |
| <input type="checkbox"/> Quarter 4 (October 1 - December 31) | <input type="checkbox"/> Quarter 4: From <u>10</u> / <u>01</u> To <u>11</u> / <u>30</u> |
2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? ☒ Yes (Skip to 3) ☐ No (Skip to 4)
3. What is the hardness level of the receiving water? 57
4. Does your facility discharge into any saltwater receiving waters? ☐ Yes ☒ No

F. Monitoring Information										
Note: Make additional copies of this form as necessary.										
1. Nature of Discharge: <input checked="" type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt										
2.a. Duration of the rainfall event (hours): 4 2.b. Rainfall amount (inches): 0.7 2.c. Time since previous measurable storm event (days): 1										
3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
043	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	I	Copper, dissolved	3.51	ug/L		09/29/2017	<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 4.16 hours. Rainfall amount = 0.73 inches.

F. Monitoring Information										
Note: Make additional copies of this form as necessary.										
1. Nature of Discharge: <input checked="" type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt										
2.a. Duration of the rainfall event (hours): 7 2.b. Rainfall amount (inches): 1.2 2.c. Time since previous measurable storm event (days): 1										
3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
051	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Chemical Oxygen Demand (COD)	ND		8.95 mg/L	09/28/2017	<input type="checkbox"/>	<input type="checkbox"/>
052	<input checked="" type="checkbox"/> Substantially identical to outfall: 051	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 7.00 hours. Rainfall amount = 1.25 inches.

051: Aluminum, total recoverable (I) - NODI 9. Ammonia, total (QBM) - NODI B. Aroclor, total (I) - NODI B. Arsenic, dissolved (QBM) - NODI B. Cadmium, dissolved (QBM) - NODI B. Cyanide, total (QBM) - NODI B. Lead, dissolved (QBM) - NODI B. Mercury, total (QBM) - NODI B. Selenium, total (QBM) - NODI B. Silver, dissolved (QBM) - NODI B.

F. Monitoring Information										
Note: Make additional copies of this form as necessary.										
1. Nature of Discharge: <input checked="" type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt										
2.a. Duration of the rainfall event (hours): 7 2.b. Rainfall amount (inches): 1.2 2.c. Time since previous measurable storm event (days): 1										
3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
053	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Arsenic, dissolved	ND		2.00 ug/L	09/29/2017	<input type="checkbox"/>	<input type="checkbox"/>
053	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Cadmium, dissolved	BQL		1.00 ug/L	09/29/2017	<input type="checkbox"/>	<input type="checkbox"/>
053	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Lead, dissolved	BQL		2.00 ug/L	09/29/2017	<input type="checkbox"/>	<input type="checkbox"/>
053	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Silver, dissolved	ND		0.300 ug/L	09/29/2017	<input type="checkbox"/>	<input type="checkbox"/>
065	<input checked="" type="checkbox"/> Substantially identical to outfall: 053	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>
066	<input checked="" type="checkbox"/> Substantially identical to outfall: 053	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 7.00 hours. Rainfall amount = 1.25 inches.

F. Monitoring Information										
Note: Make additional copies of this form as necessary.										
1. Nature of Discharge: <input checked="" type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt										
2.a. Duration of the rainfall event (hours): 7 2.b. Rainfall amount (inches): 1.2 2.c. Time since previous measurable storm event (days): 1										
3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	I	Aluminum, total recoverable	6290	ug/L		09/28/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Ammonia, total	0.294	mg/L		09/28/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Arsenic, dissolved	ND		2.00 ug/L	09/28/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Cadmium, dissolved	ND		0.300 ug/L	09/28/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Chemical Oxygen Demand (COD)	ND		8.95 mg/L	09/28/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Cyanide, total	0.057	mg/L		09/28/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Lead, dissolved	ND		0.500 ug/L	09/28/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Magnesium, total	6.95	mg/L		09/28/2017	<input type="checkbox"/>	<input type="checkbox"/>

072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Mercury, total	ND		0.067 ug/L	09/28/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Selenium, total	ND		2.00 ug/L	09/28/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Silver, dissolved	ND		0.300 ug/L	09/28/2017	<input type="checkbox"/>	<input type="checkbox"/>
070	<input checked="" type="checkbox"/> Substantially identical to outfall: 072	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>
071	<input checked="" type="checkbox"/> Substantially identical to outfall: 072	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 7.00 hours. Rainfall amount = 1.25 inches.

072: The impaired water pollutant total recoverable Aluminum exceeds the New Mexico water quality standard. The average of four monitoring values for dissolved Arsenic does not exceed the benchmark value, therefore quarterly monitoring will be discontinued per Part 6.2.1.2. The average of four monitoring values for dissolved Cadmium does not exceed the benchmark value, therefore quarterly monitoring will be discontinued per Part 6.2.1.2. The average concentration of total Cyanide is mathematically certain to exceed the benchmark value. The average of four monitoring values for dissolved Lead does not exceed the benchmark value, therefore quarterly monitoring will be discontinued per Part 6.2.1.2. The average concentration of total Magnesium is mathematically certain to exceed the benchmark value. The average of four monitoring values for dissolved Silver does not exceed the benchmark value, therefore quarterly monitoring will be discontinued per Part 6.2.1.2. Adjusted Gross Alpha (I) - NODI 9. Aroclor, total (I) - NODI B.

F. Monitoring Information										
Note: Make additional copies of this form as necessary.										
1. Nature of Discharge: <input checked="" type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt										
2.a. Duration of the rainfall event (hours): 5 2.b. Rainfall amount (inches): 1.2 2.c. Time since previous measurable storm event (days): 1										
3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
075	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	I	Copper, dissolved	13.5	ug/L		09/28/2017	<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 4.66 hours. Rainfall amount = 1.20 inches.

075: The impaired water pollutant dissolved Copper exceeds the New Mexico water quality standard. Aroclor, total (I) - NODI B. Thallium, dissolved (I) - NODI B.

G. Certification

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

First Name, Middle Initial, Last Name: Taunia S Van Valkenburg

Title: EPC-CP Group Leader

Signature: 

Date 12/13/2017

E-mail: tauniav@lanl.gov



A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from 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: Everett SpencerDate approval obtained: 06/17/2016*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at <http://www.epa.gov/netdmr/>**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

☒ Submitting monitoring data (Fill in all Sections).☐ Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).☐ Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).☐ Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).☐ Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490City: Los AlamosState: NM ZIP Code: 87545 -Phone: 505 667 0666E-mail: tauniav@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

First Name, Middle Initial, Last Name: Holly L. WheelerOrganization: EPC-CPPhone: 505 667 1312

Ext. _____

E-mail: hbenson@lanl.gov

F. Monitoring Information										Note: Make additional copies of this form as necessary.	
1. Nature of Discharge: <input checked="" type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt											
2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.1 2.c. Time since previous measurable storm event (days): 1											
3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?	
020	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Zinc, dissolved	118	ug/L		09/29/2017	<input type="checkbox"/>	<input type="checkbox"/>	

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.75 hours. Rainfall amount = 0.13 inches.

020: Adjusted Gross Alpha (I) - NODI B. Aluminum, total recoverable (QBM) - NODI B. Aluminum, total recoverable (I) - NODI 9. Aroclor, total (I) - NODI B. Copper, dissolved (QBM) - NODI B. Copper, dissolved (I) - NODI 9. Iron, total (QBM) - NODI B. Nitrate plus Nitrite Nitrogen (QBM) - NODI B. Thallium, dissolved (I) - NODI B.

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: ☒ Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:
- | | |
|--|--|
| <input type="checkbox"/> Quarter 1 (January 1 – March 31) | <input type="checkbox"/> Quarter 1: From <u>04</u> / <u>01</u> To <u>05</u> / <u>31</u> |
| <input type="checkbox"/> Quarter 2 (April 1 – June 30) | <input type="checkbox"/> Quarter 2: From <u>06</u> / <u>01</u> To <u>07</u> / <u>31</u> |
| <input type="checkbox"/> Quarter 3 (July 1 – September 30) | <input checked="" type="checkbox"/> Quarter 3: From <u>08</u> / <u>01</u> To <u>09</u> / <u>30</u> |
| <input type="checkbox"/> Quarter 4 (October 1 – December 31) | <input type="checkbox"/> Quarter 4: From <u>10</u> / <u>01</u> To <u>11</u> / <u>30</u> |
2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? ☒ Yes (Skip to 3) ☐ No (Skip to 4)
3. What is the hardness level of the receiving water? 57
4. Does your facility discharge into any saltwater receiving waters? ☐ Yes ☒ No

G. Certification

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

First Name, Middle Initial, Last Name: Taunia S Van Valkenburg

Title: EPC-CP Group Leader

Signature: 

Date 12/13/2017

E-mail: tauniav@lanl.gov



A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from 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: Everett SpencerDate approval obtained: 06/17/2016*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at <http://www.epa.gov/netdmr/>**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

☒ Submitting monitoring data (Fill in all Sections).☐ Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).☐ Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).☐ Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).☐ Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490City: Los AlamosState: NM ZIP Code: 87545 -Phone: 505 667 0666E-mail: tauniav@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

First Name, Middle Initial, Last Name: Holly L. WheelerOrganization: EPC-CPPhone: 505 667 1312

Ext. _____

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: ☒ Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:
- | | |
|--|--|
| <input type="checkbox"/> Quarter 1 (January 1 – March 31) | <input type="checkbox"/> Quarter 1: From <u>04</u> / <u>01</u> To <u>05</u> / <u>31</u> |
| <input type="checkbox"/> Quarter 2 (April 1 – June 30) | <input type="checkbox"/> Quarter 2: From <u>06</u> / <u>01</u> To <u>07</u> / <u>31</u> |
| <input type="checkbox"/> Quarter 3 (July 1 – September 30) | <input type="checkbox"/> Quarter 3: From <u>08</u> / <u>01</u> To <u>09</u> / <u>30</u> |
| <input type="checkbox"/> Quarter 4 (October 1 – December 31) | <input checked="" type="checkbox"/> Quarter 4: From <u>10</u> / <u>01</u> To <u>11</u> / <u>30</u> |
2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? ☒ Yes (Skip to 3) ☐ No (Skip to 4)
3. What is the hardness level of the receiving water? 57
4. Does your facility discharge into any saltwater receiving waters? ☐ Yes ☒ No

F. Monitoring Information										
Note: Make additional copies of this form as necessary.										
1. Nature of Discharge: <input checked="" type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt										
2.a. Duration of the rainfall event (hours): 2 2.b. Rainfall amount (inches): 0.4 2.c. Time since previous measurable storm event (days): 1										
3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
002	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Aluminum, total recoverable	1200	ug/L		10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
002	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Iron, total	1450	ug/L		10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
002	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Nitrate plus Nitrite Nitrogen	0.174	mg/L		10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
002	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Zinc, dissolved	93.8	ug/L		10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 1.91 hours. Rainfall amount = 0.40 inches.

002: The average of four monitoring values for total recoverable Aluminum exceeds the benchmark value. The average concentration of total Iron is mathematically certain to exceed the benchmark value. The average of four monitoring values for Nitrate plus Nitrite Nitrogen does not exceed the benchmark value, therefore quarterly monitoring will be discontinued per Part 6.2.1.2. Adjusted Gross Alpha (I) - NODI 9. Aroclor, total (I) - NODI B. Copper, dissolved (I) - NODI 9. Thallium, dissolved (I) - NODI B. Aluminum, total recoverable (I) - NODI 9.

F. Monitoring Information										
Note: Make additional copies of this form as necessary.										
1. Nature of Discharge: <input checked="" type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt										
2.a. Duration of the rainfall event (hours): 2 2.b. Rainfall amount (inches): 0.4 2.c. Time since previous measurable storm event (days): 1										
3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
009	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Iron, total	1180	ug/L		10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
007	<input checked="" type="checkbox"/> Substantially identical to outfall: 009	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>
008	<input checked="" type="checkbox"/> Substantially identical to outfall: 009	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>
010	<input checked="" type="checkbox"/> Substantially identical to outfall: 009	<input type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 1.91 hours. Rainfall amount = 0.40 inches.

009: The average concentration of total Iron is mathematically certain to exceed the benchmark value. Adjusted Gross Alpha (I) - NODI 9. Aluminum, total recoverable (I) - NODI 9. Aroclor, total (I) - NODI B. Copper, dissolved (I) - NODI 9. Thallium, dissolved (I) - NODI B.

F. Monitoring Information										
Note: Make additional copies of this form as necessary.										
1. Nature of Discharge: <input checked="" type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt										
2.a. Duration of the rainfall event (hours): 2 2.b. Rainfall amount (inches): 0.4 2.c. Time since previous measurable storm event (days): 1										
3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
020	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Zinc, dissolved	110	ug/L		10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 1.91 hours. Rainfall amount = 0.40 inches.

020: Adjusted Gross Alpha (I) - NODI B. Aluminum, total recoverable (QBM) - NODI B. Aluminum, total recoverable (I) - NODI 9. Aroclor, total (I) - NODI B. Copper, dissolved (QBM) - NODI B. Copper, dissolved (I) - NODI 9. Iron, total (QBM) - NODI B. Nitrate plus Nitrite Nitrogen (QBM) - NODI B. Thallium, dissolved (I) - NODI B.

F. Monitoring Information										
Note: Make additional copies of this form as necessary.										
1. Nature of Discharge: <input checked="" type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt										
2.a. Duration of the rainfall event (hours): 2 2.b. Rainfall amount (inches): 0.5 2.c. Time since previous measurable storm event (days): 1										
3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
043	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	ELG	pH	8.39	SU		10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
043	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	I	Adjusted Gross Alpha	ND		2.95 pCi/L	10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
043	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	I	Aluminum, total recoverable	1650	ug/L		10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
043	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	I	Aroclor, total	ND		0.034 ug/L	10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
043	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	ELG	Oil and Grease	ND		1.44 mg/L	10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
043	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	ELG	Total Suspended Solids (TSS)	27.4	mg/L		10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
043	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Total Suspended Solids (TSS)	27.4	mg/L		10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 2.16 hours. Rainfall amount = 0.48 inches.

043: The impaired water pollutant Adjusted Gross Alpha was not detected in stormwater discharge from this outfall, therefore annual monitoring will be discontinued per Part 6.2.4.1. 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. The result for Total Suspended Solids exceeds the Daily Maximum Effluent Limitation.

F. Monitoring Information										
Note: Make additional copies of this form as necessary.										
1. Nature of Discharge: <input checked="" type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt										
2.a. Duration of the rainfall event (hours): 2 2.b. Rainfall amount (inches): 0.5 2.c. Time since previous measurable storm event (days): 1										
3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
047	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Magnesium, total	0.553	mg/L		10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
046	<input checked="" type="checkbox"/> Substantially identical to outfall: 047	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>
045	<input checked="" type="checkbox"/> Substantially identical to outfall: 047	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>
048	<input checked="" type="checkbox"/> Substantially identical to outfall: 047	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>
044	<input checked="" type="checkbox"/> Substantially identical to outfall: 047	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>

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4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 2.08 hours. Rainfall amount = 0.53 inches.

047: The average concentration of total Magnesium is mathematically certain to exceed the benchmark value. Adjusted Gross Alpha (I) - NODI B. Aluminum, total recoverable (I) - NODI 9. Ammonia, total (QBM) - NODI B. Aroclor, total (I) - NODI B. Arsenic, dissolved (QBM) - NODI B. Cadmium, dissolved (QBM) - NODI B. Chemical Oxygen Demand (COD) (QBM) - NODI B. Cyanide, total (QBM) - NODI B. Lead, dissolved (QBM) - NODI B. Mercury, total (QBM) - NODI B. Selenium, total (QBM) - NODI B. Silver, dissolved (QBM) - NODI B.

F. Monitoring Information										
Note: Make additional copies of this form as necessary.										
1. Nature of Discharge: <input checked="" type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt										
2.a. Duration of the rainfall event (hours): 4 2.b. Rainfall amount (inches): 0.9 2.c. Time since previous measurable storm event (days): 7										
3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
053	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Arsenic, dissolved	ND		2.00 ug/L	10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
053	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Cadmium, dissolved	ND		0.300 ug/L	10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
053	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Lead, dissolved	BQL		2.00 ug/L	10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
053	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Silver, dissolved	ND		0.300 ug/L	10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
065	<input checked="" type="checkbox"/> Substantially identical to outfall: 053	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>
066	<input checked="" type="checkbox"/> Substantially identical to outfall: 053	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 4.50 hours. Rainfall amount = 0.87 inches.

F. Monitoring Information										
Note: Make additional copies of this form as necessary.										
1. Nature of Discharge: <input checked="" type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt										
2.a. Duration of the rainfall event (hours): 4 2.b. Rainfall amount (inches): 0.9 2.c. Time since previous measurable storm event (days): 7										
3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Ammonia, total	0.449	mg/L		10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Ammonia, total	0.196	mg/L		10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Arsenic, dissolved	ND		2.00 ug/L	10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Arsenic, dissolved	ND		2.00 ug/L	10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Cadmium, dissolved	ND		0.300 ug/L	10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Cadmium, dissolved	ND		0.300 ug/L	10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Chemical Oxygen Demand (COD)	127	mg/L		10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Chemical Oxygen Demand (COD)	67.4	mg/L		10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>

072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Cyanide, total	BQL		0.005 mg/L	10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Lead, dissolved	BQL		2.00 ug/L	10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Lead, dissolved	ND		0.500 ug/L	10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Magnesium, total	15.1	mg/L		10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Magnesium, total	7.09	mg/L		10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Mercury, total	BQL		0.200 ug/L	10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Mercury, total	BQL		0.200 ug/L	10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Selenium, total	BQL		5.00 ug/L	10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Selenium, total	ND		2.00 ug/L	10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Silver, dissolved	ND		0.300 ug/L	10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>

072	<input type="checkbox"/> Substantially identical to outfall:	<input type="checkbox"/>	QBM	Silver, dissolved	ND		0.300 ug/L	10/05/2017	<input type="checkbox"/>	<input type="checkbox"/>
070	<input checked="" type="checkbox"/> Substantially identical to outfall: 072	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>
071	<input checked="" type="checkbox"/> Substantially identical to outfall: 072	<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 4.50 hours. Rainfall amount = 0.87 inches.

072: The average of four monitoring values for total Ammonia does not exceed the benchmark value, therefore quarterly monitoring will be discontinued per Part 6.2.1.2. The average of four monitoring values for Chemical Oxygen Demand does not exceed the benchmark value, therefore quarterly monitoring will be discontinued per Part 6.2.1.2. Second Cyanide sample missed analytical holding time; result rejected during validation. The average concentration of total Magnesium is mathematically certain to exceed the benchmark value. The average of four monitoring values for total Mercury does not exceed the benchmark value, therefore quarterly monitoring will be discontinued per Part 6.2.1.2. The average of four monitoring values for total Selenium does not exceed the benchmark value, therefore quarterly monitoring will be discontinued per Part 6.2.1.2.

G. Certification

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

First Name, Middle Initial, Last Name: Taunia S Van Valkenburg

Title: EPC-CP Group Leader

Signature: 

Date

12/13/2012

E-mail: tauniav@lanl.gov

APPENDIX H1

Sampling Data from Previous Permit Term (MSGP 2008)

Permitted Facility	MSGP Station Number	Report Type	Location ID	Field Sample ID	Sample Collection Date	Sample Collection Time	Analyte Name	Field Preparation Code	Sample Type	Detect Flag
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	WTMSGP-11-6354	09/07/2011	12:49	Oil and Grease	UF	WT	N
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	WTMSGP-13-29853	09/12/2013	16:32	Oil and Grease	UF	WT	N
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	MSGP-14-56984	07/15/2014	22:28	Oil and Grease	UF	WT	N
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	MSGP-14-56985	07/16/2014	15:47	Oil and Grease	UF	WT	N
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	MSGP-14-85169	07/19/2014	13:50	Oil and Grease	UF	WT	N
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	MSGP-14-85782	08/01/2014	20:13	Oil and Grease	UF	WT	N
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	MSGP-15-95646	07/07/2015	03:57	Oil and Grease	UF	WT	N
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	MSGP-15-95647	07/15/2015	11:01	Oil and Grease	UF	WT	N
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	MSGP-15-95648	07/20/2015	18:10	Oil and Grease	UF	WT	N
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	MSGP-15-95649	08/08/2015	17:11	Oil and Grease	UF	WT	N
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	WTMSGP-11-6354	09/07/2011	12:49	pH	UF	WT	
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	MSGP-15-95646	07/07/2015	03:57	pH	UF	WT	
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	MSGP-15-95647	07/15/2015	11:01	pH	UF	WT	
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	MSGP-15-95648	07/20/2015	18:10	pH	UF	WT	
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	MSGP-15-95649	08/08/2015	17:11	pH	UF	WT	
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	WTMSGP-13-29853	09/12/2013	16:32	Total Suspended Solids (TSS)	UF	WT	Y
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	WTMSGP-13-29848	09/18/2013	04:03	Total Suspended Solids (TSS)	UF	WT	Y
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	WTMSGP-13-29849	09/22/2013	17:55	Total Suspended Solids (TSS)	UF	WT	Y
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	MSGP-14-56984	07/15/2014	22:28	Total Suspended Solids (TSS)	UF	WT	Y
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	MSGP-14-56985	07/16/2014	15:47	Total Suspended Solids (TSS)	UF	WT	Y
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	MSGP-14-85169	07/19/2014	13:50	Total Suspended Solids (TSS)	UF	WT	Y

Report Result	Report Units	Adjusted Result	MSGP I Level	MSGP QBM Level	MSGP ELG Daily Max Level	MSGP ELG Daily Min Level	MSGP ELG 30-Day Avg Adjusted	MSGP ELG 30-Day Avg Level	Validation Qualifier	COC No.	Analytical Method
1.5	mg/L	0.0			15.0			10.0	U	11-3560	EPA:1664A
5.49	mg/L	0.0			15.0			10.0	U	2013-1899	EPA:1664A
5.56	mg/L	0.0			15.0			10.0	U	2014-3891	EPA:1664A
5.49	mg/L	0.0			15.0		0.0	10.0	U	2014-3917	EPA:1664A
1.44	mg/L	0.0			15.0		0.0	10.0	U	2014-3983	EPA:1664A
1.48	mg/L	0.0			15.0		0.0	10.0	U	2014-4192	EPA:1664A
1.43	mg/L	0.0			15.0			10.0	U	2015-1542	EPA:1664A
1.63	mg/L	0.0			15.0		0.0	10.0	U	2015-1709	EPA:1664A
1.43	mg/L	0.0			15.0		0.0	10.0	U	2015-1792	EPA:1664A
1.43	mg/L	0.0			15.0		0.0	10.0	U	2015-2140	EPA:1664A
7.94	SU	7.94			9.0	6.0					
8.15	SU	8.15			9.0	6.0					
8.31	SU	8.31			9.0	6.0					
8.3	SU	8.3			9.0	6.0					
8.57	SU	8.57			9.0	6.0					
46.9	mg/L	46.9			23.0			15.0	NQ	2013-1899	SM:2540D
5.6	mg/L	5.6			23.0		26.25	15.0	J	2013-2006	SM:2540D
49.6	mg/L	49.6			23.0		34.033	15.0	NQ	2013-2101	SM:2540D
167.0	mg/L	167.0			23.0			15.0	NQ	2014-3891	SM:2540D
97.2	mg/L	97.2			23.0		132.1	15.0	NQ	2014-3917	SM:2540D
45.2	mg/L	45.2			23.0		103.133	15.0	NQ	2014-3983	SM:2540D

TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	MSGP-14-85782	08/01/2014	20:13	Total Suspended Solids (TSS)	UF	WT	Y
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	MSGP-15-95646	07/07/2015	03:57	Total Suspended Solids (TSS)	UF	WT	Y
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	MSGP-15-95647	07/15/2015	11:01	Total Suspended Solids (TSS)	UF	WT	Y
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	MSGP-15-95648	07/20/2015	18:10	Total Suspended Solids (TSS)	UF	WT	Y
TA-60 Asphalt Batch Plant	E200.5	MSGP ELG	Asphalt Plant at Sigma Mesa	MSGP-15-95649	08/08/2015	17:11	Total Suspended Solids (TSS)	UF	WT	Y
TA-60 Asphalt Batch Plant	E200.5	MSGP I	Asphalt Plant at Sigma Mesa	WTMSGP-11-6354	09/07/2011	12:49	Aluminum, total	UF	WT	Y
TA-60 Asphalt Batch Plant	E200.5	MSGP I	Asphalt Plant at Sigma Mesa	MSGP-15-95650	07/07/2015	03:57	Aroclor-1016, total	UF	WT	N
TA-60 Asphalt Batch Plant	E200.5	MSGP I	Asphalt Plant at Sigma Mesa	MSGP-15-95650	07/07/2015	03:57	Aroclor-1221, total	UF	WT	N
TA-60 Asphalt Batch Plant	E200.5	MSGP I	Asphalt Plant at Sigma Mesa	MSGP-15-95650	07/07/2015	03:57	Aroclor-1232, total	UF	WT	N
TA-60 Asphalt Batch Plant	E200.5	MSGP I	Asphalt Plant at Sigma Mesa	MSGP-15-95650	07/07/2015	03:57	Aroclor-1242, total	UF	WT	N
TA-60 Asphalt Batch Plant	E200.5	MSGP I	Asphalt Plant at Sigma Mesa	MSGP-15-95650	07/07/2015	03:57	Aroclor-1248, total	UF	WT	N
TA-60 Asphalt Batch Plant	E200.5	MSGP I	Asphalt Plant at Sigma Mesa	MSGP-15-95650	07/07/2015	03:57	Aroclor-1254, total	UF	WT	N
TA-60 Asphalt Batch Plant	E200.5	MSGP I	Asphalt Plant at Sigma Mesa	MSGP-15-95650	07/07/2015	03:57	Aroclor-1260, total	UF	WT	N
TA-60 Asphalt Batch Plant	E200.5	MSGP I	Asphalt Plant at Sigma Mesa	MSGP-15-95650	07/07/2015	03:57	Aroclor-1262, total	UF	WT	N
TA-60 Asphalt Batch Plant	E200.5	MSGP I	Asphalt Plant at Sigma Mesa	WTMSGP-13-29853	09/12/2013	16:32	Copper, total	UF	WT	Y
TA-60 Asphalt Batch Plant	E200.5	MSGP I	Asphalt Plant at Sigma Mesa	WTMSGP-11-6354	09/07/2011	12:49	Gross Alpha, total	UF	WT	N
TA-60 Asphalt Batch Plant	E200.5	MSGP QBM	Asphalt Plant at Sigma Mesa	WTMSGP-11-6396	09/07/2011	12:49	Total Suspended Solids (TSS)	UF	WT	Y
TA-60 Asphalt Batch Plant	E200.5	MSGP QBM	Asphalt Plant at Sigma Mesa	WTMSGP-11-6397	09/10/2011	06:49	Total Suspended Solids (TSS)	UF	WT	Y
TA-60 Asphalt Batch Plant	E200.5	MSGP QBM	Asphalt Plant at Sigma Mesa	WTMSGP-13-29853	09/12/2013	16:32	Total Suspended Solids (TSS)	UF	WT	Y

78.1	mg/L	78.1			23.0		96.875	15.0	NQ	2014-4192	SM:2540D
102.0	mg/L	102.0			23.0			15.0	NQ	2015-1542	SM:2540D
81.3	mg/L	81.3			23.0		91.65	15.0	NQ	2015-1709	SM:2540D
34.0	mg/L	34.0			23.0		72.433	15.0	NQ	2015-1792	SM:2540D
61.6	mg/L	61.6			23.0		58.967	15.0	NQ	2015-2140	SM:2540D
1070.0	ug/L	1070.0							NQ	11-3560	EPA:200.8
0.0336	ug/L	0.0							U	2015-1542	EPA:608
0.0336	ug/L	0.0							U	2015-1542	EPA:608
0.0336	ug/L	0.0							U	2015-1542	EPA:608
0.0336	ug/L	0.0							U	2015-1542	EPA:608
0.0336	ug/L	0.0							U	2015-1542	EPA:608
0.0336	ug/L	0.0							U	2015-1542	EPA:608
0.0336	ug/L	0.0							U	2015-1542	EPA:608
0.0336	ug/L	0.0							U	2015-1542	EPA:608
6.06	ug/L	6.06							NQ	2013-1899	SW-846:6020
1.61	pCi/L	0.0							U	11-3560	EPA:900
64.0	mg/L	64.0		100.0					NQ	11-3560	SM:2540D
22.8	mg/L	22.8		100.0					J-	11-3596	SM:2540D
46.9	mg/L	46.9		100.0					NQ	2013-1899	SM:2540D

APPENDIX I

Records of Employee Training Related to the SWPPP



2015 MSGP Corrective Actions

Presented by
Terrill Lemke and Holly Wheeler

Environmental Protection Division
Compliance Programs (ENV-CP)

December 01, 2015

Agenda

- Definition of Corrective Action
- What triggers a corrective action
- Examples of issues requiring corrective actions
- Timeframes to address corrective actions
- 45 Day Extension
- Corrective action process
- Results of initial inspection
- Suggestions
- Expectations and questions
- Request for other topics

Corrective Action

Definition: “Any action taken, or required to be taken, to

- (1) repair, modify, or replace any stormwater control used at the site;
- (2) clean up and dispose of spills, releases, or other deposits found on the site;
- (3) remedy a permit violation.

What Triggers A Corrective Action?

- Unauthorized release or discharge
- Discharge that violated a numeric effluent limit
- Control measures that are not stringent enough to ensure stormwater discharges meet Water Quality Standards.
 - These are the threshold values in your SWPPPs
- Visual assessment that shows evidence of stormwater pollution (e.g., color, odor, floating solids, settled solids, suspended solids, foam)
- Failure to meet any permit condition or those specified in the site specific SWPPP

Examples of Issues Requiring Corrective Action



Examples of Issues Requiring Corrective Action (continued)



Timeframes to address new corrective actions

- Shall Immediately take action upon identification of an issue
 - Immediately is the **same day a condition is found**
 - If found after 3:00 pm, action must be taken **the next work day**
- If follow-up action is needed – before the next storm event or within 14 calendar days
- If finalization of CA is not feasible within 14 days the following is required
 - Documentation of why it is not feasible to close the CA within this timeframe
 - A formal schedule for completion of the action A.S.A.P. **but no longer than 45 days after discovery**

45 Day Extension

- If a CA is expected to exceed the 45 day timeframe (as identified above) the DEP shall provide ENV-CP the following information
 - Rationale for an extension (e.g., a defensible position that does not put LANS at risk)
 - Provide a realistic completion date
 - Take the minimum additional time necessary to complete the corrective action.
- Where a corrective action results in a change to any control measure or procedure the SWPPP must be modified within 14 calendar days of the day the CA was closed.

Corrective Action Process

- Identification of an issue either during routine operations or during an inspection
 - Notify the Deployed Environmental Professional
 - Take immediate action
 - Record the issue and corrective action
 - Enter the issue into the MSGP Corrective Action Report (CAR) Database
 - Propose a completion date
 - System notifies FOD, DSESH Manager, and ENV-CP of new CA
 - Follow-up and completion of corrective action
 - Perform work and record completed activities and date of completion in the database
 - Database automatically sends e-mail notifications to key personnel every 30 days until corrective actions are closed (process may change/compress in the future)

Corrective Action Process (continued)

- Follow-up and completion of corrective action (continued)
 - If CA is expected to exceed 14 days, enter a schedule for completion in the database
 - At about day 30, ENV-CP will be contacting the DEP for the following information:
 - Rationale for a 45 day extension
 - Realistic completion date taking the minimum amount of time necessary
 - Letter will be sent to Region 6 EPA **prior** to the 45th day.
 - ENV-CP will track progress according to the schedule provided in the 45 day extension letter
 - If timeframes in the letter are exceeded, it is a permit non-compliance.

Results of initial inspection

- Started with 40 corrective actions with potential to exceed 45 day timeframe
- Corrective action initiated well into the 45-day period (not started immediately)
- Three CA's reported to Region 6 EPA with rationale and completion dates.
 - Took numerous phone calls and discussions up the management chain to the AD level to accomplish this
 - Not efficient use of resources
 - Must strive for proactivity, not reactivity
- One was closed within identified timeframe
- One has exceeded the completion date reported to EPA
- One must be addressed by this Friday
- EPA will consider the appropriateness and promptness of corrective action in determining enforcement response to permit violations

Suggestions for Improvements?

- How does the institution speed up the corrective action process?
 - Improve the FSR system?
 - Flag compliance driven work
 - Allow compliance driven work to move through system without cost code or automatically be assigned a specific cost code
 - Use Maintenance Connection to push out work order to DEPs with deadline and notification to managers
 - What are the barriers you face in taking immediate action and/or completing work within 14 days?
 - How do we improve this? Ideas?

Expectations

- Be timely and diligent in implementing 2015 MSGP requirements at your facilities
 - **Plan ahead for budget & resources**
- Look for opportunities to streamline and improve processes
- Ask for help



Questions?

Requests for Other Topics?

ENV-CP

Training Topic: 2015 MSGP Corrective Action Training

Date: December 1, 2015

Place: TA-59-116-117

Training Called By: Sue Terp, ENV-ES DEP Monthly Meeting

Training Given By: Holly Wheeler and Terrill Lemke, ENV-CP

<u>Name</u>	<u>Z#</u>	<u>Organization</u>	<u>Mail Stop</u>	<u>Phone</u>	<u>Cell</u>	<u>Pager</u>
Stephen Cossey	122057	DSESH-TASS	K571	5-8893	500-6614	4-5791
David Paulson	193689	DSESH-LFO	H418	5-8884	930-7347	—
SMYLA Cohn	296203	ENV-ES		5-8866	231-5380	—
SUSAN TERP	097044	ENV-ES	K478 5978	5-8889	5	—
STEPHANIE RECHAUEN	104588	DSESH-DO	K481	7-4774	699-0227	
Bill O'Neill	240098	DSESH-UI		412-5705	→	
Pattie Baucom	206967	DSESH-LFO	H418	7-3905		
Lauren Massengill	292621	DSESH-STO	'	7-2964		
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Developing Your Stormwater Pollution Prevention Plan

A Guide for Industrial Operators

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Section 1: Introduction

This guide includes suggestions on how to develop a stormwater pollution prevention plan (SWPPP). This guide does not impose any new legally binding requirements on EPA, States, or the regulated community, and does not confer legal rights or impose legal obligations upon any member of the public. In the event of a conflict between the discussion in this document and any statute, regulation, or permit, this document would not be controlling.

Interested parties are free to raise questions and objections about the substance of this guide and the appropriateness of the application of this guide to a particular situation. EPA and other decision makers retain the discretion to adopt approaches on a case-by-case basis that differ from those described in this guide where appropriate.

1.A Why Should You Use This Guide?

You should use this guide if you are an operator of an industrial facility required to develop a stormwater pollution prevention plan (SWPPP) that complies with a National Pollutant Discharge Elimination System (NPDES) industrial stormwater permit issued by your State or the U.S. Environmental Protection Agency (EPA). You may also find this guide to be useful if you are a State or EPA inspector who reviews SWPPPs, or you operate a commercial facility that is not required to obtain an NPDES permit but you are nevertheless interested in ways to minimize stormwater-related pollution at your facility.

Because each State permit can be slightly different, this guide is written more generically in an attempt to make it applicable to as many industrial general permits as possible. Owners and operators of industrial facilities should carefully read their respective industrial stormwater general permit to understand where using this guide may conflict with a State SWPPP requirement, and make adjustments to their SWPPPs as needed. EPA includes additional text describing how to address SWPPP requirements that are specifically included in the Agency's own 2008 Multi-Sector General Permit (MSGP), the "2008 MSGP".

In addition to helping you develop a SWPPP, this guide also includes sections that will assist you in keeping your implementation records and in avoiding common compliance problems, after you are authorized under the EPA 2008 MSGP or your State's general permit. See Section 7 for a discussion of how to keep implementation records. See Section 8 for a discussion of common compliance problems.

SWPPP Tip!

Owners and operators of industrial facilities, which are subject to a State or EPA industrial stormwater general permit typically must develop a SWPPP as a basic requirement. *If your facility is subject to such a requirement, failing to develop a SWPPP can result in enforcement action against your facility by EPA or a State!* For example, EPA has targeted enforcement actions against some industrial sectors for failing to have developed SWPPPs for their facilities.

1.B What Is Stormwater Runoff and What Are Its Impacts?

Stormwater runoff is water from rain or snowmelt that does not immediately infiltrate into the ground and flows over or through natural or man-made storage or conveyance systems. When undeveloped areas are converted to land uses with impervious surfaces such as buildings, parking lots, and roads, the natural hydrology of the land is altered and can result in increased surface runoff rates, volumes, and pollutant loads. Stormwater runoff picks up industrial pollutants and typically discharges them directly into nearby waterbodies or indirectly via storm sewer systems. Runoff from areas where industrial activities occur can contain toxic pollutants (e.g., heavy



Tetra Tech

Figure 1. Stormwater runoff can carry pollutants from impervious surfaces to receiving waters.

metals and organic chemicals) and other pollutants such as trash, debris, and oil and grease, when facility practices allow exposure of industrial materials to stormwater. This increased flow and pollutant load can impair waterbodies, degrade biological habitats, pollute drinking water sources, and cause flooding and hydrologic changes to the receiving water, such as channel erosion.

Industrial facilities typically perform a portion of their activities in outdoor areas exposed to the elements. This may include activities such as material storage and handling, vehicle fueling and maintenance, shipping and receiving, and salt storage, all of which can result in pollutants being exposed to precipitation and capable of being carried off in stormwater runoff. Also, facilities may have performed industrial activities outdoors in the past and materials from those activities still remain exposed to precipitation. In addition, accidental spills and leaks, improper waste disposal, and illicit connections to storm sewers may also lead to exposure of pollutants to stormwater.

EPA has identified six types of activities at industrial facilities that have the potential to be major sources of pollutants in stormwater:

- **Loading and Unloading Operations**

Loading and unloading operations can include pumping of liquids or gases from tankers to storage facilities, pneumatic transfer of dry chemicals, transfer by mechanical conveyor systems, or transfer of bags, boxes, drums or other containers by forklift or other material handling

equipment. Material spills or losses in these areas can accumulate and be washed away during a storm.

- **Outdoor Storage**

Outdoor storage activities include storage of fuels, raw materials, by-products, intermediate products, final products, and process residuals. Materials may be stored in containers, on platforms or pads, in bins, boxes or silos, or as piles. Storage areas that are exposed to rainfall and/or runoff can contribute pollutants to stormwater when solid materials wash off or materials dissolve into solution.

- **Outdoor Process Activities**

Although many manufacturing activities are performed indoors, some activities, such as timber processing, rock crushing, and concrete mixing, occur outdoors. Outdoor processing activities can result in liquid spillage and losses of material solids, which makes associated pollutants available for discharge in runoff.

- **Dust or Particulate Generating Processes**

Dust or particulate generating processes include industrial activities with stack emissions or process dusts that settle on surfaces. Some industries, such as mines, cement manufacturing, and refractories, also generate significant levels of dust that can be mobilized in stormwater runoff.

- **Illicit Connections and Non-Stormwater Discharges**

Illicit connections of process wastes or other pollutants to stormwater collection systems, instead of to sanitary sewers, can be a significant source of stormwater pollution. Non-stormwater discharges include any discharge from the facility that is not generated by rainfall runoff (for example, wash water from industrial processes). With few exceptions, these non-stormwater discharges are prohibited. Refer to your permit for a list of authorized non-stormwater discharges.

- **Waste Management**

Waste management practices include everything from landfills to waste piles to trash containment. All industrial facilities conduct some type of waste management at their site, much of it outdoors, which must be controlled to prevent pollutant discharges in stormwater.

Section 2: Getting Started

2.A Am I Required to Develop a SWPPP?

The Clean Water Act (Section 402(p)) requires that operators of “discharges associated with industrial activity” obtain a National Pollutant Discharge Elimination System (NPDES) permit. EPA regulations (40 CFR 122.26) define the categories of industrial activity required to obtain NPDES permits, and specify the application requirements for these permits. To regulate stormwater discharges from these industrial activities, EPA and authorized States issue NPDES general permits.

Most industrial stormwater discharges are covered under general permits, as opposed to individual permits, although States and EPA can and do issue individual permits to some facilities based on site-specific or industry-specific concerns. General permits are used primarily because they avoid the need to issue multiple permits, and instead only require a single permit to cover a large number of industrial facilities performing similar types of activities. To be covered under a general permit, an eligible operator of an industry must read the general permit, typically develop a SWPPP, comply with any special eligibility provisions, and submit a notice of intent (NOI) or permit application to the permitting authority.

Federal regulations require NPDES permit coverage for stormwater discharges from the following categories of industrial activity:

- Category One (i): Facilities subject to federal stormwater effluent discharge standards in 40 CFR Parts 405-471
- Category Two (ii): Heavy manufacturing (for example, paper mills, chemical plants, petroleum refineries, and steel mills and foundries)
- Category Three (iii): Coal and mineral mining and oil and gas exploration and processing
- Category Four (iv): Hazardous waste treatment, storage, or disposal facilities
- Category Five (v): Landfills, land application sites, and open dumps with industrial wastes
- Category Six (vi): Metal scrapyards, salvage yards, automobile junkyards, and battery reclaimers
- Category Seven (vii): Steam electric power generating plants
- Category Eight (viii): Transportation facilities that have vehicle maintenance, equipment cleaning, or airport deicing operations
- Category Nine (ix): Treatment works treating domestic sewage with a design flow of 1 million gallons a day or more
- Category Eleven (xi): Light manufacturing (For example, food processing, printing and publishing, electronic and other electrical equipment manufacturing, and public warehousing and storage).

SWPPP Tip!

EPA's 2008 Multi-Sector General Permit (2008 MSGP) Applies to a Limited Geographic Area – The 2008 MSGP applies in five States (Alaska, Idaho, New Mexico, Massachusetts, and New Hampshire), Indian Country lands, most territories, and some federal facilities. Alaska will be taking over administration of stormwater permits beginning in 2009. Information on where the 2008 MSGP is available is included as Appendix C of the 2008 MSGP, which can be found at www.epa.gov/npdes/stormwater/msgp.

Where Do I Get a Copy of the Industrial Stormwater General Permit in My State?

To determine who issues the industrial stormwater permit in your State, you can visit EPA's stormwater website at www.epa.gov/npdes/stormwater/authorizationstatus or the Industrial Stormwater Resource Locator at www.envcap.org/iswrl.

Who Is an Operator?

EPA defines the operator of an industrial facility as:

- The entity that has operational control over industrial activities, including the ability to modify those activities, or
- The entity that has day-to-day operational control of activities at a facility necessary to ensure compliance with the permit (e.g., the entity that is authorized to direct workers at a facility to carry out activities required by the permit). See definition in Appendix A of the 2008 MSGP.

In many cases, the owner and operator are one in the same person. In a few instances, there may be more than one operator at a site (with the owner being an operator based on the definition provided above). Where there is both an owner (without operational control) and an operator, it is the operator's responsibility to obtain permit coverage and comply with the permit provisions.

SWPPP Tip!

What is a SWPPP?

A SWPPP is a site-specific, written document that:

- Identifies potential sources of stormwater pollution at the industrial facility;
- Describes stormwater control measures that are used to reduce or eliminate pollutants in stormwater discharges from the industrial facility; and
- Identifies procedures the operator will use to comply with the terms and conditions of the 2008 MSGP or a State general industrial stormwater permit.

You are required to develop your SWPPP to address the specific conditions at your site and keep it up-to-date to reflect changes at your site both for your use and for review by the regulatory agencies responsible for overseeing your permit compliance.

2.B What Are the Basic Elements Required in a SWPPP?

A SWPPP is a written document that identifies the industrial activities conducted at the site, including any structural control practices, which the industrial facility operator will implement to prevent pollutants from making their way into stormwater runoff. The SWPPP also must include descriptions of other relevant information, such as the physical features of the facility, and procedures for spill prevention, conducting inspections, and training of employees. The SWPPP is intended to be a "living" document, updated as necessary, such that when industrial activities or stormwater control practices are modified or replaced, the SWPPP is similarly revised to reflect these changes.

The process of developing a SWPPP involves the following four steps:

- *Step 1:* Formation of a pollution prevention team of qualified personnel who will be responsible for preparing the plan and assisting the plant manager in implementing practices to comply with the permit;
- *Step 2:* Assessment of potential stormwater pollution sources;
- *Step 3:* Selection of appropriate control measures that minimize the discharge of pollutants during storm events for each of these sources; and
- *Step 4:* Development of procedures for conducting required inspection/monitoring activities, as well as regular maintenance of control measures.

This guide will assist you with these four steps. The selection of a pollution prevention team is discussed in the next section (Section 2.C). Site assessment is addressed in Section 3, the selection of control measures is discussed in Section 4, and inspection/monitoring procedures are addressed in Section 5. The remaining sections of the guide address implementation of practices to comply with the permit and periodic evaluation of your SWPPP.

SWPPP Tip!

Prepare your SWPPP before submitting an NOI or permit application for coverage!

A typical SWPPP includes the following elements:

- Stormwater pollution prevention team;
- Site description;
- Summary of potential pollutant sources;
- Description of control measures;
- Schedules and procedures;
- Documentation to support eligibility considerations under other federal laws; and
- Certification of the SWPPP.

EPA has developed a model **Industrial SWPPP Template**, which can be found in Appendix A, and on EPA's website at www.epa.gov/npdes/stormwater/msgp. This template, developed for permit holders subject to the 2008 MSGP, is available in Microsoft Word and can be customized to address SWPPP requirements in different State NPDES permits.

Where your facility has other written procedures in place, such as a Spill Prevention, Control and Countermeasure (SPCC) Plan or an Environmental Management System (EMS) developed for a National Environmental Performance Track facility, your SWPPP can reference the portions of those documents in lieu of duplicating that information in your SWPPP. In these instances, you should keep copies of the relevant portions of those documents with your SWPPP.

SWPPP Tip!

EPA's 2008 MSGP includes the requirements for a SWPPP in Part 5 of the permit.

Additional SWPPP Documentation

After you become authorized under the permit, you will need to keep records on any implementation activities required under your permit, including records related to inspections, maintenance, monitoring results, and corrective actions. This additional documentation, although separate from the actual SWPPP, should be kept with the SWPPP so that all of your NPDES stormwater records are filed in one central location (see Section 7).

To assist permittees in their recordkeeping, EPA has developed an **Additional MSGP Documentation** template, which is available at www.epa.gov/npdes/stormwater/msgp. This template, developed for permit holders subject to the 2008 MSGP, is available in Microsoft Word and can be modified as necessary to address State-specific permit requirements.

2.C Stormwater Pollution Prevention Team (Step 1)

The first step in developing the SWPPP is to identify the stormwater pollution prevention team. The stormwater pollution prevention team is responsible for assisting the facility manager in developing the facility's SWPPP as well as implementing and maintaining stormwater control measures, taking corrective action where necessary to address permit violations or to improve the performance of control measures, and modifying the SWPPP to reflect changes made to the control measures. Since industrial facilities differ in size and complexity, the number of team members will also vary. The stormwater pollution prevention team should consist of those people on-site who are most familiar with the facility and its operations and responsible for ensuring that necessary controls are in place to eliminate or minimize the impacts of stormwater from the facility.

A key member of the stormwater pollution prevention team (for some facilities, this may be the only member) is the person with primary responsibility for developing and overseeing facility activities necessary to comply with the permit. This should be someone who will be on-site on a daily basis and who is familiar with the facility and its operations. This person will also likely have primary responsibility for ensuring that inspections and monitoring activities are conducted. If an EPA or State inspector visits the facility, this person will be the main point of contact for the SWPPP.

What to Include in Your SWPPP

In your SWPPP, identify the staff members (by name or title) that comprise the facility's stormwater pollution prevention team as well as their individual responsibilities. Make sure you keep this information up-to-date as staff members change.

SWPPP Tip!

Consider adding a stormwater management component to employee job descriptions and annual reviews, as appropriate to specific jobs. Often these requirements compliment existing tasks such as maintaining a clean work area; promptly cleaning up spills and leaks; performing regularly scheduled equipment maintenance; and properly storing all chemicals, oils, and other liquid pollutants.

Each member of the stormwater pollution prevention team should have ready access to either an electronic or paper copy of applicable portions of the industrial stormwater general permit and the SWPPP.

SWPPP Tip!

Qualified Personnel – Members of your stormwater pollution prevention team and those conducting inspections and monitoring activities should be “qualified personnel.” EPA defines qualified personnel as “those who possess the knowledge and skills to assess conditions and activities that could impact stormwater quality at your facility, and who can also evaluate the effectiveness of control measures.”

2.D What Do I Need to Do to Complete My SWPPP?

After identifying your pollution prevention team, you are ready to complete the next three steps in the development of your SWPPP:

- *Step 2:* Assessing your site and activities (Section 3);
- *Step 3:* Selecting control measures (Section 4); and
- *Step 4:* Developing procedures for inspections and monitoring (Section 5).

Section 6 describes final steps necessary to complete your SWPPP and to obtain permit coverage. Section 7 suggests how records relating to permit compliance should be kept.

Section 3: Site Assessment and Planning (Step 2)

This section describes how to collect the information needed for your SWPPP. This information includes:

- *An assessment of the activities performed at your facility* – this assessment will help identify potential pollutant sources.
- *An evaluation of existing sampling data* – a review of sampling data will show where past problems have occurred.
- *Preparing maps of your facility* – site maps will identify the location of industrial activities, pollutant sources, control measures, and the direction of stormwater flow.

3.A Conduct an Assessment of the Activities Performed at Your Facility

The first step in developing a SWPPP is to gain a thorough understanding of the activities conducted and equipment located at your facility to be able to identify potential pollutant discharge concerns. To complete this step, you will need to conduct a detailed walk-through of your facility to identify industrial materials or material handling activities exposed to stormwater (see text box below), any stormwater controls already in place at your facility, the direction of stormwater flow through and from your facility, and the location of all stormwater outfalls. If possible, you should conduct your walk-through during a rain event so that you can observe the flow of stormwater on your site. In addition to your walk-through, you should communicate with fellow site employees who may be more familiar with daily operations than you so that you can thoroughly identify any activities that may contribute stormwater pollutants, but that may not be readily visible during a routine walk-through (e.g., to identify activities that are not performed on a routine basis).

What to Include in Your SWPPP

Develop a list of industrial activities at your site exposed to stormwater. Identify these activities on your site map.

How Does EPA Define Industrial Materials and Material Handling Activities?

Industrial materials or activities include, but are not limited to: material handling equipment or activities; industrial machinery; raw materials; industrial production and processes; and intermediate products, by-products, final products, and waste products. ***Material handling activities*** include, but are not limited to: the storage, loading and unloading, transportation, disposal, or conveyance of any raw material, intermediate product, final product or waste product. See 40 CFR 122.26(g).

The facility assessment will reveal locations where industrial materials or material handling activities may be contributing stormwater contaminants, and help you identify the most important pollutant sources. The following approach is suggested for completing your facility assessment:

Identification of Activities Exposed to Stormwater. As you conduct your facility assessment, make a list of the industrial activities exposed to stormwater (e.g., material storage; equipment fueling, maintenance, and cleaning; cutting steel beams). Note their location so they can be identified on the site map.

Inventory of Materials and Pollutants. Make a list of the materials and pollutants (e.g., crankcase oil, zinc, sulfuric acid, and cleaning solvents) associated with each identified activity, including pollutants associated with these materials, based on how they are stored, handled, disposed, etc. Note whether these materials are exposed to stormwater, or have the potential to be exposed to stormwater. How materials are stored and handled has a bearing on the potential for stormwater pollution.

What to Include in Your SWPPP

For each of the activities identified above, create an inventory of the materials associated with each activity (this may be easiest to do in a table). Identify whether these materials are or have the potential to be exposed to stormwater. Also, identify any pollutants associated with these materials based on how they are stored, handled, disposed, etc.

Areas with Spill or Leak Potential. Document where potential spills and leaks may occur, and specify the outfall(s) that could be affected by such spills and leaks. Document all significant spills and leaks that actually occurred at exposed areas, or that drained to a stormwater conveyance, in the three years prior to the date you prepare or amend your SWPPP. You should consider spillage and leakage of all types of materials when preparing for and documenting such releases.

What to Include in Your SWPPP

Identify locations of potential spills and leaks that could contribute pollutants to stormwater discharges, and the corresponding outfalls that would be affected. Review past records of all significant spills and leaks that occurred in areas exposed to stormwater or that drained to a stormwater conveyance over the past three years, and provide a summary or copy of such records in your SWPPP.

Presence of Non-Stormwater Discharges. A non-stormwater discharge is any discharge from your facility this is not composed entirely of rainfall or snowmelt runoff. Non-stormwater discharges often come from potable water sources or process wastewater discharges. With few exceptions, the discharge of non-stormwater as runoff from your facility is prohibited unless it is specifically allowed under an NPDES permit.

You must evaluate for the presence of non-stormwater discharges and be able to demonstrate that all unauthorized non-stormwater discharges have been eliminated prior to obtaining coverage under a stormwater permit (or that any other discharges are otherwise covered under a different NPDES permit). Conduct your evaluation during a period of dry weather (no rain for at least the previous three days). Walk your site and evaluate each outfall to identify any locations with flowing or stagnant water or discharging liquid; the presence of such water or liquid that would be indicative of a non-stormwater discharge. You should try to identify the source of the water or liquid, and determine if it is one of the allowable non-stormwater discharges identified below or otherwise in need of further action to eliminate the source. You should also identify any indicators of past or intermittent non-stormwater discharges (such as evidence of stains at the outfall).

SWPPP Tip!

Allowable Non-Stormwater Discharges

Most industrial stormwater general permits include a list of non-stormwater discharges that are “allowable” and do not need to be eliminated. As used in EPA’s 2008 MSGP, “allowable non-stormwater discharges” are those that while not stormwater discharges, are covered under the terms and conditions of the stormwater permit. These are often discharges that if not covered under a stormwater permit would require coverage under some other NPDES permit. The list of allowable non-stormwater discharges from the 2008 MSGP (Part 1.1.3) includes:

- Discharges from fire-fighting activities;
- Fire hydrant flushings;
- Potable water, including water line flushings;
- Uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids;
- Irrigation drainage;
- Landscape watering provided all pesticides, herbicides, and fertilizer have been applied in accordance with the approved labeling;
- Pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed);
- Routine external building washdown that does not use detergents;
- Uncontaminated ground water or spring water;
- Foundation or 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).

If any non-stormwater discharges are identified during the evaluation, you should take steps to eliminate any that are prohibited under your permit. For example, plug a floor drain, re-route a sink drain to the sanitary sewer, or submit an NPDES permit application for an unauthorized cooling water discharge.

Location of Salt Storage. Document the location of any storage piles containing salt used for deicing or that are used for other commercial or industrial purposes. Salt and deicing materials should be stored inside and not exposed to stormwater runoff, if possible.

What to Include in Your SWPPP

Documentation of your evaluation for non-stormwater discharges. Typically, this documentation should include:

- The date of any evaluation;
- A description of the evaluation criteria used;
- A list of the outfalls or onsite drainage points that were directly observed during the evaluation;
- The different types of non-stormwater discharge(s) and source locations; and
- The action(s) taken, such as a list of control measures used to eliminate unauthorized discharge(s), if any were identified.

What to Include in Your SWPPP

If your facility has storage piles containing salt, document the type of material, amount, and its location.

3.B Evaluate Sampling Data

You should evaluate any stormwater sampling data you, or others, collected, from the previous permit term or any time in the past 5 years, which are associated with stormwater discharges from the facility. This includes any analytic sampling data, such as benchmark monitoring or effluent limitation guideline data. The purpose of evaluating your past sampling data is to identify or pinpoint any pollutants of concern, hotspots, or control measures that are not functioning correctly. This information will be useful as you identify and select control measures (described in Section 4).

What to Include in Your SWPPP

A summary of all stormwater discharge sampling data collected at your facility during the previous permit term. You should summarize the data by pollutant, and indicate whether the pollutant parameter exceeded any applicable benchmark or effluent limit.

Include in your SWPPP your evaluation of the data, particularly where pollutants exceeded the 2008 MSGP benchmark values (see SWPPP Tip below). Attempt to identify why that pollutant existed in elevated concentrations, what are the potential sources of that pollutant at your facility, and what potential measures you could use to reduce that pollutant.

SWPPP Tip!

Compare your sampling results to EPA's 2008 MSGP Benchmark values below.

Pollutant	2008 MSGP Benchmark
Ammonia*	2.14 mg/L
Biochemical Oxygen Demand (5 day)	30 mg/L
Chemical Oxygen Demand	120 mg/L
Total Suspended Solids	100 mg/L
Turbidity	50 NTU
Nitrate + Nitrite Nitrogen	0.68 mg/L
Total Phosphorus	2.0 mg/L
pH	6.0 – 9.0 s.u.
Aluminum (T) (pH 6.5 - 9)	0.75 mg/L
Antimony (T)	0.64 mg/L
Arsenic (T)	0.15 mg/L
Beryllium (T)	0.13 mg/L
Cadmium (T)†	0.0021 mg/L
Copper (T)*†	0.014 mg/L
Cyanide	0.022 mg/L
Iron (T)	1.0 mg/L
Lead (T)*†	0.082 mg/L
Magnesium (T)	0.064 mg/L
Mercury (T)	0.0014 mg/L
Nickel (T)†	0.47 mg/L
Selenium (T)*	0.005 mg/L
Silver (T)*†	0.0038 mg/L
Zinc (T)†	0.12 mg/L

(T) Total recoverable

* New criteria are currently under development, but values are based on existing criteria.

† These pollutants are dependent on water hardness. The benchmark value listed is based on a hardness of 100 mg/L. The 2008 MSGP requires industrial facility to analyze receiving water samples for hardness, and use the hardness tables provided in the 2008 MSGP to determine the applicable benchmark value for that facility.

3.C Develop General Location and Site Maps

The final step in the site assessment process is to document the results of your site assessment on a detailed site map. If you have already developed a site map for an earlier permit, you should modify the map as necessary to reflect changes at your facility, including changes to any of your control measures or industrial activities.

Your SWPPP must include both a general location map and a detailed site map. The following is a discussion of what is required for each type.

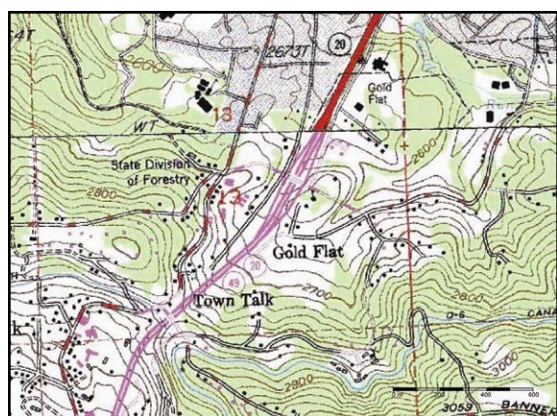


Figure 2. Example general location map.

General Location Map

A general location map is helpful to identify nearby, but not necessarily adjacent, waterbodies around your facility. Include in your SWPPP a general location map (e.g., U.S. Geological Survey (USGS) quadrangle map, or other large scale area map) with enough detail to identify the location of your facility and all nearby receiving waters that may receive your stormwater discharges. Create a USGS map for your area by using the USGS National Map Viewer (<http://nmviewogc.cr.usgs.gov/viewer.htm>). Maps can be printed or saved as PDF documents and inserted into your SWPPP.

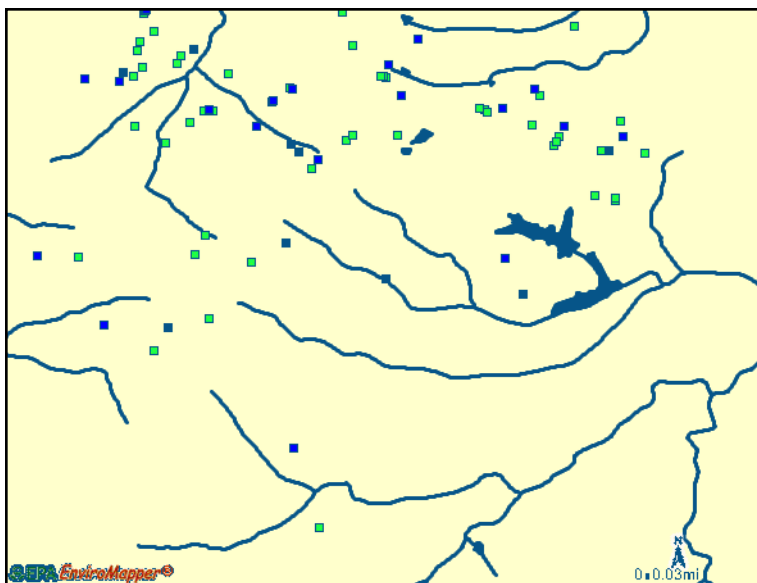


Figure 3. Example general location map.

One free web-based mapping service is EPA's Water Locator Tool, which is available at www.epa.gov/npdes/stormwater/msgp. To use the tool, enter your facility address in Step 1, then click on "Window to My Environment" in Step 2 (make sure your pop-up blocker is turned off). You will be able to zoom and reposition the map. When you get the map to the appropriate scale and location, you can copy and paste it into your SWPPP. Use a graphics program or a pen to mark the location of your facility on the map. An example general location map is included in Figure 3.

What to Include in Your SWPPP

Develop a general location map of your facility that shows:

- the location of your facility
- receiving waters to which your facility discharges

It may also be helpful to include roads or political boundaries to better locate your facility.

Site Map

Develop a map of your site that includes, among other things, the footprint of all buildings, structures, paved areas, and parking lots. The site map is intended to show the direction of stormwater flow throughout your facility and the potential pollutant sources that may come into contact with your stormwater runoff.

EPA recommends that you develop a first draft of the site map based on the information collected during your assessment. After you select

appropriate control measures (Section 4) and monitoring locations (Section 5), you should revise your site map to reflect this information and any additional changes identified as you develop your SWPPP. If you are unable to fit all the information on one map, use multiple maps to provide a full characterization of the information described above. Also, if activities and conditions change at your site during the term of the NPDES permit, you should update the map as described in Section 6.C of this guide. An example of a site map is included (see Figure 4) and in Appendix C.

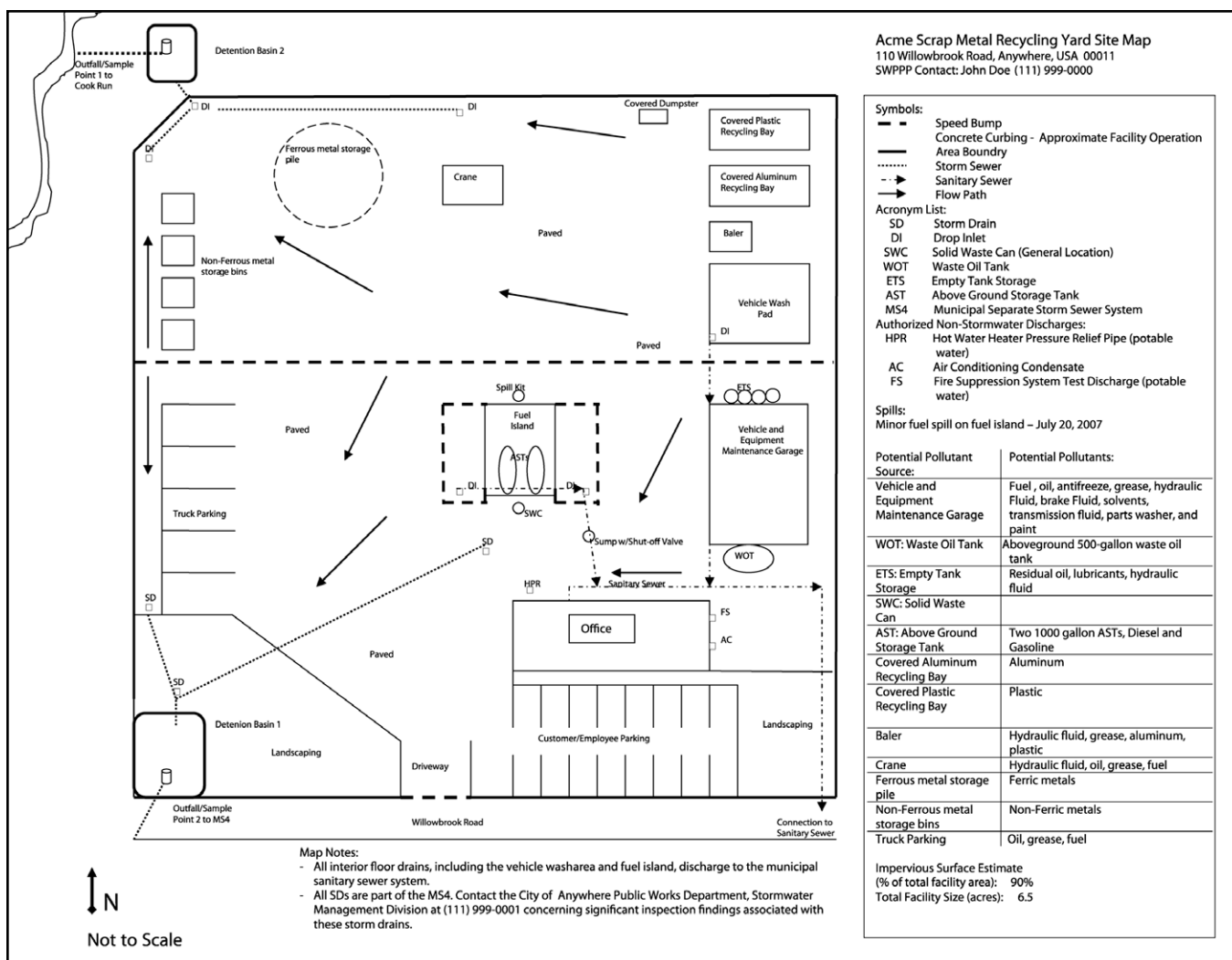


Figure 4. Example site map.

What to Include in Your SWPPP

Include a site map of your facility which includes the items below:

- The size of the property in acres;
- The location and extent of significant structures and impervious surfaces;
- Directions of stormwater flow (use arrows);
- Locations of all existing structural control measures;
- Locations of all receiving waters in the immediate vicinity of your facility, indicating if any of the waters are impaired and, if so, whether the waters have TMDLs established for them;
- Locations of all stormwater conveyances including ditches, pipes, and swales;
- Locations of potential pollutant sources identified (see Section 3.B);
- Locations where significant spills or leaks have occurred;
- Locations of all stormwater monitoring points;
- Locations of stormwater inlets and outfalls, with a unique identification code for each outfall (e.g., Outfall No. 1, No. 2, etc), indicating if you are treating one or more outfalls as “substantially identical”, and an approximate outline of the areas draining to each outfall;
- Municipal separate storm sewer systems, where your stormwater discharges to them;
- Locations and descriptions of all non-stormwater discharges;
- Locations of the following activities where such activities are exposed to precipitation:
 - Fueling stations;
 - Vehicle and equipment maintenance and/or cleaning areas;
 - Loading/unloading areas;
 - Locations used for the treatment, storage, or disposal of wastes;
 - Liquid storage tanks;
 - Processing and storage areas;
 - Immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility;
 - Transfer areas for substances in bulk; and
 - Machinery; and
- Locations and sources of run-on to your site from adjacent property that contains significant quantities of pollutants.

Section 4: Selecting Control Measures (Step 3)

Control measures are the best management practices (BMPs) or other structural or non-structural practices that are used to prevent or reduce the discharge of pollutants in stormwater. Structural control measures, as the name implies, focus on installation of hard structures to control discharges. Structural controls include practices such as vegetative swales, collection and reuse of stormwater, inlet controls, snow management, infiltration devices, and wet retention measures. Non-structural control measures are intended to prevent or reduce the generation of pollutants in stormwater and/or the volume of stormwater runoff using practices that focus on facility operations and procedures. Examples of non-structural control measures include procedural practices such as employee trainings and the posting of signs that raise staff awareness to the BMPs and procedures in place to control stormwater pollutants.

SWPPP Tip!

Effluent limits = stormwater control requirements. In the 2008 MSGP, as with most state industrial stormwater general permits, stormwater control measures are those structural or non-structural practices that are used to achieve the permit's effluent limits.

A combination of preventive and active treatment control measures usually results in the most effective stormwater management for minimizing the offsite discharge of pollutants in stormwater runoff. Most control measures require regular maintenance to function as intended. Some control measures have simple maintenance requirements, while others may require more extensive upkeep in order to maximize their performance. Note that identifying weaknesses in current facility practices will help permittees determine appropriate control measures for use at the site.

General Stormwater Management Principles

In most industrial stormwater permits, including the 2008 MSGP, the site operator is given the flexibility to select the type of control measures, including specific technologies, which he/she believes are best suited to the facility and that will meet the permit's requirements. This flexibility is necessary given the variability of each industrial operation, the differences in the topography from site to site, and the dissimilarities in the activities and materials exposed to stormwater. However, there are certain general principles of stormwater management that are common to all sites, and that can be used by operators in their selection and design of control measures. These general principles, listed below, should be considered as a way to maximize the performance of control measures at your site.

- **Pollution prevention** – The best way to prevent stormwater pollution is to minimize the use of water contaminants in your industrial activities. When selecting control measures for the facility, you should focus on controls that are geared toward reducing pollutants at the source to prevent stormwater pollution. Source control practices include maintaining equipment, picking up trash and debris, training site staff on appropriate spill procedures, and proper materials management and storage.

What does “minimize” mean?

The technology-based limits included in EPA's 2008 MSGP require that you minimize (i.e., defined as reduce and/or eliminate) stormwater exposure to pollutants using control measures that are technologically available, economically practicable, and achievable in light of best industry practice.

- **Minimizing exposure** – Another effective way to minimize stormwater pollution is to eliminate opportunities for stormwater to come into contact with industrial activities and polluting materials. You should look for opportunities to relocate industrial activities/materials to covered or contained areas and to properly store and transport any accumulated scrap or waste material.
- **Combining controls** – Combined control measures are often more effective than control measures in isolation. For example, good housekeeping will often go a long way to minimize stormwater pollution but is more effective when combined with minimizing the exposure of significant materials or activities and a structural control, such as inlet protection.
- **Examining your site’s pollutant sources** – Understand the type and quantity of pollutants that could contaminate stormwater leaving your facility. Use your knowledge of the potential pollutants to drive your selection and design of effective control measures.
- **Maximizing infiltration** – Onsite infiltration reduces overland runoff, improves groundwater recharge, and augments base flow in local streams. You should look for opportunities to minimize impervious area and increase areas where stormwater can infiltrate on-site. Keep in mind, however, that the use of onsite infiltration typically must be combined with other control measures to avoid ground water contamination.
- **Using existing vegetated areas** – Open vegetated swales and natural depressions can be used to dissipate energy in overland flow and reduce erosion. Vegetated swales and natural depressions can increase infiltration and, in some cases, promote uptake of metals and nutrients by plants.
- **Buffering on-site or adjacent waterbodies or drainage systems** – Maintain or restore vegetated buffer zones between your facility’s impervious areas and adjacent surface waters.

- **Using structural practices (as applicable)** – When non-structural control measures are not effective in preventing stormwater contamination, structural control measures (e.g., swirl separators, sand filters, retention basins, etc.) may be needed to treat stormwater before it leaves your facility.

EPA’s Technology-Based Discharge Requirements

The following sections describe the 12 categories of discharge requirements (or “effluent limits”) required by the 2008 MSGP. Although the wording of these requirements may be unique to the EPA permit, many State permits include requirements that are similar to the 2008 MSGP.

4.A Minimize Exposure

The first step in an effective stormwater control program is minimizing exposure of manufacturing, processing, material storage areas, loading and unloading areas, dumpsters and other disposal areas, maintenance activities, and fueling operations to rain, snow, snowmelt, and runoff by both locating industrial materials and activities inside or protecting them with storm resistant coverings.

SWPPP Tip!

No Exposure Exemption

EPA’s regulations recognize the effectiveness of minimizing exposure by allowing facilities to opt out of the permit by submitting a “No Exposure Certification” when all industrial activities are protected from contact with stormwater. The “No Exposure Certification” is included as Appendix K of the 2008 MSGP. Note that industrial materials do not need to be enclosed or covered if stormwater runoff from affected areas will not be discharged to receiving waters or if discharges are authorized under another NPDES permit. Check your State permit for specific requirements for incorporating minimizing exposure into your SWPPP.



Figure 5. Minimize exposure by providing cover for potential contaminants.

What to Include in Your SWPPP

Describe all structural controls or practices used to minimize the exposure of industrial activities to rain, snow, snowmelt, and runoff. The SWPPP must describe where the controls or practices are being implemented at your site. The location must also be identified on the SWPPP site map. Examples of exposure-minimizing control measures that could be used at your facility and described in the SWPPP include:

- The location and extent of grading, berms, or curbs used to contain contaminated stormwater or divert stormwater around areas of industrial activity;
- A description of the types of materials and equipment that are stored within secondary containment and the location of contained storage areas;
- The location of spill cleanup kits and a description and schedule for employee spill abatement and cleanup training;
- Proper procedures for leaky vehicles and equipment, such as drip pans; parking in a contained area, or parking indoors;
- The use and location of spill/overflow protection equipment;
- Procedures for long-term storage or disposal of equipment and vehicles, such as draining all fluids;
- The location of covered and/or contained equipment cleaning areas; and
- The disposal method for all wash water, such as an on-site sump (if a sump is used, specify the pumping frequency) or sanitary sewer.

4.B Good Housekeeping

Good housekeeping practices offer a practical and cost-effective way to maintain a clean and orderly facility to prevent potential pollution sources from coming into contact with stormwater. Good housekeeping practices also help to enhance safety and improve the overall work environment. To effectively document in your SWPPP that you are including good housekeeping procedures at your site, you should establish protocols to reduce the possibility of mishandling materials or equipment and train employees in good housekeeping techniques. An effective good housekeeping program not only benefits stormwater quality but makes the facility a clean, safe place for employees and clients.

SWPPP Tip!

Labeling Storm Drains – A good stormwater awareness practice is to label all storm drains on your industrial facility with a “No Dumping – Drains to Stream” or similar message. If select drains at your facility discharge to the sanitary sewer system or to a sump (for example, at a wash rack), you should label those with a “Drains to Sanitary Sewer” or similar message.

Common areas where good housekeeping practices should be followed include areas where trash containers are kept and adjacent areas, material storage areas, vehicle and equipment maintenance areas, and loading docks. Involving employees in routine monitoring of housekeeping practices has proven to be an effective means of ensuring the continued implementation of this control measure.



Tetra Tech

Figure 6. Two photos showing an industrial facility before and after it followed good housekeeping practices.

What to Include in Your SWPPP

Describe any practices you are implementing to keep exposed areas of your site clean. Describe where each practice is being implemented at your site. Include here your schedule or approach for:

- Regular pickup and disposal of waste materials and scrap equipment;
- Maintenance of clean work spaces;
- Routine inspections for leaks and of the condition of drums, tanks, and containers;
- Routine inspections to make sure that industrial materials are properly stored and labeled;
- A schedule for sweeping paved areas and floors, including who will perform the sweeping (employee or contractor);
- The individual or position responsible for emptying drip pans placed beneath leaking equipment, valves, and fill lines.

4.C Maintenance

A good maintenance program requires regular inspections, testing, and the preventive maintenance and repair of industrial equipment (stationary and mobile) and industrial systems. Maintenance programs are intended to ensure that structural control measures and industrial equipment are kept in good operating condition and to prevent or minimize leaks and other releases of pollutants (see Section 4.D for more specific information). If you notice a deficiency or otherwise find that your control measures or industrial equipment need to be replaced or repaired to ensure proper functioning, and to avoid leaks or other releases, you must make the necessary repairs or modifications, typically prior to the next wet weather event and as expeditiously as practicable.

Facilities with good maintenance programs will keep a maintenance log that tracks the regular maintenance of industrial equipment and stormwater control measures. The log provides a maintenance history for each piece of equipment and demonstrates to regulatory authorities that you have implemented the maintenance program outlined in your SWPPP.



Figure 7. Equipment should receive routine preventative maintenance to prevent drips and leaks.

What to Include in Your SWPPP

Describe procedures to:

- Maintain industrial equipment so that leaks and other releases are avoided, and
- Maintain any of your site's control measures in effective operating condition.

Include the schedule you will follow for such maintenance activities. Describe where each applicable procedure is being implemented at the site.

4.D Spill Prevention and Response Procedures

Spills and leaks, together, are the largest source of industrial stormwater pollution. For this reason, your SWPPP must identify control measures that are used at your site to minimize the potential for spills, leaks, and other releases that may come into contact with stormwater. Among the practices that should be in place at your site are plans for effective response to spills if or when they occur. If your facility has more than 1,320 gallons of oil storage capacity in aboveground tanks you may also be required to develop a Spill Prevention, Control and Countermeasure (SPCC) plan consistent with 40 CFR 112.1.



Figure 8. Spill kits should be maintained in areas with spill potential, such as fueling stations.

SWPPP Tip!

Employees must be aware of notification procedures in the event of a spill or leak, including when to contact appropriate facility personnel, emergency response agencies, and regulatory agencies. State or local requirements may necessitate reporting of spills or other prohibited discharges to local emergency response, public health, or drinking water supply agencies. Contact information must be posted in locations that are readily accessible and available to employees. 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 or, in the Washington, DC, metropolitan area, call (202) 267-2675 in accordance with the requirements of 40 CFR Part 110, 40 CFR Part 117, and 40 CFR Part 302 as soon as you have knowledge of the discharge.

What to Include in Your SWPPP

Describe any structural controls or procedures you are putting in place to minimize the potential for leaks, spills, and other releases. At a minimum, your SWPPP should include:

- The location(s) of spill response plans for significant materials;
- A schedule for training employees in spill response procedures;
- Procedures for plainly labeling containers (e.g., “Used Oil,” “Spent Solvents,” “Fertilizers and Pesticides,” etc.) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur;
- Preventative measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;
- The individual or position responsible for making sure the spill kits are complete and ready for use;
- Procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases; and
- Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies.

Describe where each control is to be located or where applicable procedures will be implemented.

4.E Erosion and Sediment Controls

Permits typically require control measures to be selected and implemented to limit erosion on areas of the site that, due to topography, land disturbing activities, soils, cover, materials, or other factors, are likely to experience erosion. In general, erosion control measures, which prevent soil or sediment from becoming mobilized, should be used as the primary line of defense, while sediment control measures, which trap, infiltrate, or settle out mobilized sediments, should be used to back-up the erosion control measures. For instance, erosion control measures, include grading, seeding, mulching, and sodding, that prevent soil from becoming dislodged, should be considered first. Where sediment may be dislodged and potentially mobilized in stormwater runoff, sediment control measures that trap eroded sediment include silt fences, sediment ponds, and stabilized entrances should be considered.

When selecting, designing, installing, and implementing appropriate erosion and sediment control measures, you should consult with your Tribal, State, and local authorities to



Figure 9. Slope drains to protect a hillside from erosion.

SWPPP Tip!

Projects that disturb 1 acre or more of land generally require coverage under an NPDES construction general permit (CGP). Information on EPA's 2008 CGP requirements, including links to construction SWPPP resources, is available at www.epa.gov/npdes/stormwater/cgp.

ensure that you consider the appropriate control measures. EPA's internet-based resources relating to controlling erosion and sedimentation include the sector-specific *Industrial Stormwater Fact Sheet Series*, (www.epa.gov/npdes/stormwater/msgp), *National Menu of Stormwater BMPs* (www.epa.gov/npdes/stormwater/menuofbmps), and *National Management Measures to Control Nonpoint Source Pollution from Urban Areas* (www.epa.gov/owow/nps/urbanmm/index.html).

What to Include in Your SWPPP

Include the following:

- A narrative description of areas of your site that are susceptible to erosion (note: the site map will also identify these areas);
- A description of erosion and sediment control measures used at your site to stabilize exposed areas and contain runoff to minimize onsite erosion and potential offsite discharges of sediment.

Note: Permits often require flow velocity dissipation devices at discharge locations and within outfall channels where necessary to reduce erosion and/or settle out pollutants. Describe in your SWPPP the location of each control implemented at your site.

4.F Management of Runoff

Similar to erosion and sediment controls, the management of stormwater runoff that flows through your site is an effective way to reduce the pollutants that are discharged from your site. Where you employ structures or practices that are intended to divert, infiltrate, reuse, or otherwise reduce stormwater runoff so as to reduce the discharge of pollutants, your SWPPP must include a description of those controls. Appropriate measures are highly site-specific, but may include vegetative swales, berms, collection and reuse of stormwater, inlet controls, snow management, infiltration devices, and wet retention measures.



Figure 10. Vegetated berm used to prevent facility inundation when the river is at flood stage.

As mentioned previously, a combination of preventive and treatment control measures usually results in the most effective approach to stormwater management for minimizing the offsite discharge of pollutants in stormwater runoff.

SWPPP Tip!

When selecting control measures, be careful not to violate local building or fire codes and other ordinances. An example would be constructing a shed for storage of chemicals and then finding out from the fire department that you are in violation for locating the shed too close to the main building, not equipping the shed with sprinklers or other fire control device, and not properly labeling containers.

What to Include in Your SWPPP

Include the following:

- A description of controls used at your site to divert, infiltrate, reuse, contain, or otherwise reduce stormwater runoff.
- A description of locations at your site where each control will be implemented.

4.G Salt Storage Piles or Piles Containing Salt

Salt is commonly used for deicing and other commercial or industrial purposes, including maintenance of paved surfaces. Salt piles or piles that are predominantly composed of other materials that contain some salt typically must be covered or enclosed and otherwise isolated from coming into contact with stormwater (e.g., good housekeeping, diversions, containment). Piles do not need to be enclosed or covered if stormwater runoff from the piles is not discharged or if discharges from the piles are authorized under another NPDES permit.

To effectively document in your SWPPP that you are minimizing exposure of these piles to stormwater, you should consider creating a checklist to verify that salt loading and offloading operations occur within contained areas with appropriate measures in place to prevent the track out of salt from the contained areas.



Figure 11. Salt pile covered with a tarp.

What to Include in Your SWPPP

Include the following:

- The identification of salt storage piles or piles containing salt, and a description of structures at your site covering or enclosing such piles, or that prevent the discharge of stormwater from such piles.
- If tarps are used to cover piles, the SWPPP should describe procedures for when tarps will be placed over the piles.
- A description of any controls or procedures used to minimize exposure resulting from adding to or removing materials from the pile.
- The locations at your site where each control and/or procedure are implemented. Note that these locations must be identified on the SWPPP site map as well.

4.H Sector-Specific Requirements

Most industrial stormwater general permits regulate discharges of stormwater from a number of different industrial sectors. For instance, EPA's 2008 MSGP regulates discharges from 29 different industrial sectors. These "sectors" consist of similar facilities categorized by the nature of their industrial activity, type of materials handled, and material management practices employed. The sectors are structured to a large extent on the definition of "stormwater discharge associated with industrial activity" found at 40 CFR 122.26 (b)(14)(i)–(ix), (xi), under which many sectors are identified based on their standard industrial classification (SIC) code.

Review your industrial stormwater general permit to determine if there are additional sector-specific discharge requirements (or "effluent limits") for which your type of industrial activity are subject. If so, you will need to specifically document how you will comply with those requirements in your SWPPP. Not all sectors will necessarily have additional sector-specific discharge requirements. For example, Sector N of EPA's 2008 MSGP includes specific requirements for scrap recycling and waste recycling facilities as defined by SIC Major Group Code 50 (5093). One of the specific Sector N discharge requirements is to "minimize surface runoff from coming in contact with scrap processing equipment." Alternatively, the Chemical and Allied Products Manufacturing, and Refining sector (Sector C) does not have any sector-specific discharge requirements in the 2008 MSGP.

Note that, if covered by the 2008 MSGP, you are responsible for complying with sector-specific requirements associated with your primary industrial activity and all co-located industrial activities. Co-located industrial activities are industrial activities, excluding your primary industrial activity, located on-site that are also required to be covered by the 2008 MSGP or a State general permit. Statewide general permits may have different requirements for specific industrial sectors.

SWPPP Tip!

Sector-specific requirements for the 2008 MSGP – All sector-specific requirements can be found in Part 8 of the 2008 MSGP.

Sector-specific fact sheets – EPA has developed fact sheets specific to the industrial activities, pollutants and control measures used at each of the 29 sectors covered by the 2008 MSGP. These sector fact sheets can be found at <http://cfpub.epa.gov/npdes/stormwater/swsectors.cfm>.

What to Include in Your SWPPP

Include the following:

- The industrial sector, or sectors, applicable to the permitted site.
- A discussion of the control measures implemented to address sector-specific requirements, if applicable, consistent with Part 8 of the 2008 MSGP.
- The location of each control and/or procedure used to comply with the sector-specific requirements.

4.1 Employee Training

Stormwater training is required for all employees who work in areas where industrial activities or material handling activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of this permit. These employees include inspectors, maintenance personnel, and all members of your Pollution Prevention Team. The training session or sessions are expected to cover the contents of the facility SWPPP, control measures implemented to achieve compliance with applicable discharge requirements, spill containment and cleanup procedures, maintenance, monitoring, inspection, planning, reporting, and documentation requirements.

EPA recommends that training be conducted for any applicable employees at least annually and whenever a new employee starts who meets the description above. You should have a sign-in/sign-out sheet at each training class to document that employees have participated. Keep the sign-in/sign-out sheet with your SWPPP.

What to Include in Your SWPPP

Include the following:

- Person(s) responsible for conducting the training (a member of the Pollution Prevention Team, contractor, or other?)
- The employees or positions that will receive stormwater training.
- The frequency of stormwater training sessions (annually, upon hire, or other). EPA recommends at least once per year. For example, the SWPPP might state that stormwater training will be conducted annually in September so employees are ready for the upcoming wet weather season.
- The stormwater topics covered during the training session or sessions.
- The sign-in/sign-out sheets from the training session.

SWPPP Tip!

Customize the employee training to the issues at your facility, and ensure that employees are trained on the control measures they are expected to implement. Among the topics you cover in your training should be some of the basic principles of stormwater management. For example, you should convey that:

- Stormwater pollution occurs when rainfall runoff picks up pollutants from the ground or areas exposed to rainfall.
- Polluted stormwater can cause significant water quality problems, such as fish kills and drinking water contamination. Stormwater runoff is typically discharged directly to receiving waters, and is not treated somewhere else, like at a wastewater treatment plant.
- Potential stormwater pollutants should be kept inside or under cover whenever possible.
- The best way to prevent stormwater problems is through general good housekeeping practices. A clean and organized facility will usually have very few stormwater problems.
- If anyone sees any potential stormwater problems, they should report it to the facility operator or a member of the stormwater pollution prevention team.



Figure 12. In addition to employee training, labeling storm drains is a good measure to educate employees.

4.J Non-Stormwater Discharges

In Section 3.A, this guide discussed the assessment of allowable and prohibited non-stormwater discharges at your site. As stated in that section, unauthorized non-stormwater discharges cannot be discharged from your facility unless specifically authorized by a separate, individual NPDES permit. Your SWPPP should describe the assessment you conducted under Section 3.A, how you eliminated any unauthorized non-stormwater discharges, and your plans to prevent unauthorized non-stormwater discharges at your facility.



Figure 13. Unauthorized non-stormwater discharge from an industrial facility.

What to Include in Your SWPPP

Include the following:

- A list of allowable non-stormwater discharges that occur at your facility.
- A description of unauthorized non-stormwater discharges found at your site and how they were eliminated.
- Steps taken to ensure that other unauthorized non-stormwater discharges do not occur in the future.

Note: If this section is already addressed by your documentation of non-stormwater discharges (see Section 3.A), you can simply include a cross-reference to that section of your SWPPP.

4.K Waste, Garbage, and Floatable Debris

You are responsible for making sure that stormwater runoff does not carry waste, garbage, and floatable debris to receiving waters. To verify compliance with this requirement, you should identify and implement control measures (e.g., good housekeeping, sweeping, keeping lids closed on dumpsters) to keep exposed areas free of such materials. Alternatively, your SWPPP should identify how you will intercept and properly dispose of these materials before they leave your facility.

What to Include in Your SWPPP

Include the following:

- A description of controls and procedures that will be used to minimize discharges of waste, garbage, and floatable debris.
- Descriptions of the location of these control measures and procedures at your site.



Figure 14. Poor management of waste and garbage at a facility.

4.L Dust Generation and Vehicle Tracking of Industrial Materials

As an operator, you are responsible for minimizing generation of dust and off-site tracking of raw, final or waste materials. Dust control practices can reduce the activities and air movement that cause dust to be generated from disturbed soil surfaces. Airborne particles pose a dual threat to the environment and human health. Dust can be carried offsite, thereby increasing soil loss from disturbed areas and increasing the likelihood of sedimentation and water pollution. Control measures to minimize the generation of dust include:

- *Sprinkling/Irrigation.* Moistening the ground surface with water is an effective dust control method for haul roads and other traffic routes.
- *Vegetative Cover.* By establishing a vegetative cover on areas that will not see vehicle traffic, exposed soil is stabilized and wind velocity at ground level can be reduced, thus reducing the potential for dust to become airborne.
- *Mulch.* Mulch is a quick and effective, but not permanent, means of dust control for newly disturbed areas.
- *Wind Breaks.* Wind breaks can be trees or shrubs left in place during site clearing or constructed barriers such as a wind fence, snow fence, tarp curtain, hay bale, crate wall or sediment wall. The break reduces wind velocity, minimizing airborne transfer of soil off site.
- *Tillage.* Deep tillage in large open areas brings soil clods to the surface where they rest on top of dust, preventing it from becoming airborne.
- *Stone.* Stone can be an effective dust deterrent for construction roads and entrances or as a mulch in areas where vegetation cannot be established.
- *Spray-on Chemical Soil Treatments (Palliatives).* Examples of chemical adhesives include anionic asphalt emulsion, latex emulsion, resin-water emulsions and calcium chloride. Chemical palliatives should be used only on mineral soils. When considering chemical application to suppress dust, determine whether the chemical is biodegradable or water-soluble and what effect its application could have

on the surrounding environment, including waterbodies and wildlife.

To reduce vehicle tracking of materials and sediment, the operator should keep stored or spilled materials away from all roads within the site. Specific measures such as setting up a wash site or separate pad to clean vehicles prior to their leaving the site may be effective as well.

What to Include in Your SWPPP

Include the following:

- A description of controls and procedures used at your site to minimize the generation of dust.
- Descriptions of procedures and controls used to minimize off-site tracking of raw, final, or waste materials.
- Describe the location where each control and/or procedure will be implemented and include on the SWPPP site map.

4.M Numeric Effluent Limitations Based on Effluent Limit Guidelines

Some industrial activities identified in industrial stormwater permits also have Federal numeric effluent limits (called effluent limitation guidelines) that must be achieved in stormwater discharges. The effluent limits are maximum concentrations or levels of specific pollutants that can be discharged in facility stormwater. If your facility includes one of the industrial categories listed below, refer to your industrial stormwater general permit (Parts 6.2.2.1 and 2.1.3 of EPA's 2008 MSGP) regarding numeric effluent limits and monitoring requirements to which you are subject:

- Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas
- Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products
- Runoff from asphalt emulsion facilities
- Runoff from material storage piles at cement manufacturing facilities
- Mine dewatering discharges at crushed stone, construction sand and gravel, or industrial sand mining facilities
- Runoff from hazardous waste landfills

- Runoff from non-hazardous waste landfills
- Runoff from coal storage piles at steam electric generating facilities

An example of a numeric effluent limit is the requirement for facilities that discharge stormwater from asphalt emulsion facilities to meet specific, numeric concentration limits for TSS, pH, and oil and grease (i.e., based on the limits in 40 CFR Part 443, Subpart A).

If your facility is subject to numeric effluent limits, you must document the location and type of control measures installed at your site to meet those limits.

What to Include in Your SWPPP

Include the following:

- All numeric effluent limits the facility is required to meet based on effluent limit guidelines.
- A description of the control measures used to meet the numeric effluent limits.
- The location of each control measure at your site.

4.N Additional Controls to Address Impaired Waters

Many general permits have additional requirements for discharges to impaired waters. “Impaired waters” have been identified by a Tribe, State, or EPA as not meeting applicable State water quality standards pursuant to Section 303(d) of the Clean Water Act. This may include both waters with approved or established Total Maximum Daily Loads (TMDLs), and those for which a TMDL has not yet been approved or established.

SWPPP Tip!

Impaired waters are streams, rivers, and lakes that do not currently meet designated uses and water quality standards. States, territories, and authorized tribes are required under the Clean Water Act to compile lists of known impaired waters, called 303(d) lists. Stormwater discharges to impaired waters may trigger additional control measures and monitoring requirements. For facilities subject to EPA’s 2008 MSGP, see Part 2.2 for a more detailed discussion of water quality-based effluent limitations and conditions for discharging to impaired waters.

A TMDL determines the greatest amount of a given pollutant, such as sediment, that a water body can receive without violating water quality standards and designated uses. The TMDL then establishes pollution reduction goals to bring the water body into compliance with water quality standards. Facilities that are subject to NPDES permits (i.e., “point sources”), such as facilities subject to EPA’s 2008 MSGP, which discharge the pollutant causing the water body impairment, receive “waste load allocations” or “WLAs”. The WLA estimates the daily amount of the impairment pollutant that can be discharged from particular sources or categories of sources so that the waterbody can be restored to meeting its applicable water quality standards.

Should your facility discharge stormwater to a water body subject to a TMDL, EPA or a State permit authority may require additional effluent limits, monitoring requirements, or other restrictions consistent with an applicable WLA, or you may be required to apply for an individual NPDES permit. Where you have been informed either in the permit or directly by EPA or a State permit authority that you are subject to any “water quality-based” discharge requirement consistent with an applicable WLA, you are required to document in your SWPPP the control measures used to meet that requirement and to describe the location of such control measures.

SWPPP Tip!

Find impaired waters near your facility – Use EPA’s Water Locator Tool (available at www.epa.gov/npdes/stormwater/msgp) or other tool to map impaired waters within 10 miles of your facility. Enter your facility address in Step 1, then click on “Retrieve List of Impaired Waterbodies” under step 3 to see the list.

What to Include in Your SWPPP

Include the following:

- A description of the control measures used to meet the water quality-based effluent limits.
- The location of each control measure at your site.

Section 5: Procedures for Inspections and Monitoring (Step 4)

The next step in developing your SWPPP is to set out the procedures you will follow for inspecting your site and monitoring your stormwater discharge. The procedures you develop in your SWPPP for inspection and monitoring will help you understand whether your control measures are working and, if not, provide you with ways you may improve your stormwater control.

Industrial stormwater permits typically require three types of inspections:

1. Routine facility inspections (see Section 5.A)
2. Visual assessments (see Section 5.B)
3. Annual comprehensive site inspections (see Section 5.C)

Some States also require you to take samples of your stormwater discharge for laboratory analysis. Check the applicable section of your industrial stormwater permit to determine if you are required to collect water quality monitoring samples. See Section 5.D for guidance on how to address your monitoring procedures in the SWPPP.

The following sections describe the type of information you should document in your SWPPP and the associated decisions you will have to make when planning for and conducting each of the three types of inspections.

5.A Routine Facility Inspections

Your industrial stormwater permit will likely specify a *minimum* frequency for conducting routine facility inspections. The minimum frequency typically ranges from once per month to once per quarter; however, EPA recommends that you develop a routine inspection schedule customized for your facility and specific site conditions, which in many instances will require that you inspect more frequently than the minimum requirement. EPA also suggests conducting routine inspections when measurable precipitation falls during normal business hours. Observing site conditions during storms provides you with real-time feedback on control measures that are working and those that are not working effectively.

EPA's 2008 MSGP requires three types of facility inspections.

1. Routine facility inspections (2008 MSGP, Part 4.1)
2. Quarterly visual assessment of stormwater discharges (2008 MSGP, Part 4.2)
3. Comprehensive site inspections (2008 MSGP, Part 4.3)

The 2008 MSGP also includes the requirements for the following types of monitoring:

1. Benchmark monitoring (2008 MSGP, Part 6.2.1)
2. Effluent guidelines limitation monitoring (2008 MSGP, Part 6.2.2)
3. State or Tribal monitoring (2008 MSGP, Part 6.2.3)
4. Impaired waters monitoring (2008 MSGP, Part 6.2.4)

Monitoring procedures are described in Part 6.1 of the 2008 MSGP.

EPA's 2008 MSGP requires quarterly routine facility inspections of all areas where industrial materials or activities are exposed to stormwater, and of all stormwater control measures used to comply with the effluent limits contained in the permit. Inspections must be conducted by qualified personnel, including at least one member of your pollution prevention team, during regular business hours. You must specify the relevant inspection schedules in your SWPPP document as required in Part 5.1.5.

The 2008 MSGP requires that at least one of the four quarterly inspections each year be conducted when a stormwater discharge is occurring.

SWPPP Tip!

You should check your industrial stormwater general permit to determine if it establishes exceptions to the inspection requirements for certain types of sites. For example, 2008 MSGP Part 4.1.3 identifies exceptions to routine visual inspections for inactive or unstaffed sites.

Recommended Routine Facility Inspection Sequence

Although you are given the discretion to determine how best to conduct your inspection, EPA recommends that your inspection follow a sequence that corresponds to how raw materials arrive at your site and are stored or processed in areas exposed to stormwater, and to how intermediate or finished products are stored, processed, or transported from your facility. Accordingly, the following recommended inspection sequence will help ensure that you conduct a thorough routine inspection at your facility. Whichever process you determine is appropriate for your facility, you are required to describe that approach in your SWPPP.

SWPPP Tip!

Invest in an inexpensive digital camera to photo-document your inspections. Maintaining a photo history of inspections and control measures can help you to recognize if conditions changed or your control measures are degrading. Photographs can also help provide documentation to EPA or state inspectors that control measures are being maintained and replaced as needed.

1. Plan your inspection: Develop a consistent process to ensure that you inspect all areas. One method to ensure that your inspections are consistent and thorough is to create a checklist (or make notes on a copy of your SWPPP) of areas to inspect. Use as a resource your updated site map identifying the locations of industrial activities exposed to stormwater, stormwater conveyances and discharge points, and any BMPs.
2. Evaluate the area where raw materials are delivered. Are these areas contained or is there potential for stormwater to carry spills or pollutants away from the drop area? If so, can these pollutants leave your site to an adjoining facility, storm drain, or surface water? If so, additional control measures should be implemented.
3. Are raw materials stored in a contained area with overhead cover, berms, or other secondary containment? If not, do the raw materials have the potential to contribute to stormwater pollution?

Note: Single-wall chemical containers need to be located within secondary containment structures, behind berms, or covered to prevent stormwater contamination from an accidental release of containerized chemicals. Similarly, solid materials with the potential to contain pollutants (i.e., scrap material or wrecked vehicles) should include secondary containment.

4. Is equipment maintenance and fueling conducted in appropriately contained areas? Are spill kits present and full in areas where a liquid spill could be expected?
5. Do the industrial processes occur in covered and contained areas?
6. Where do you store waste material?

Note: If the waste material has the potential to contaminate stormwater it must be stored in a contained area or otherwise controlled. Be sure to evaluate the facility "bone-yard" and scrap all equipment that is out-of-date and not intended to be reused.

7. Is the finished product appropriately contained for potential pollutant sources?
8. Following the internal evaluation, walk the perimeter of your site and look for evidence of stormwater discharges—particularly stains from oil and grease or chemicals. Should you observe these, look at the discharge area and consider additional control measures. You should specifically observe all stormwater outfalls where stormwater leaves your facility.
9. Following each inspection, you will need to make note of control measures that require maintenance, or that need to be replaced, and make sure that the SWPPP and site map are current regarding industrial activities and potential pollutants.
10. Finally, where appropriate, repair or replace worn or ineffective control measures as soon as possible but certainly before the next forecasted precipitation event.

SWPPP Tip!

As you conduct your routine facility inspections, keep in mind these visual indicators of poor control measures or missing control measures:

1. Rainbow colored sheen on the surface of stormwater indicates the presence of oil or other hydrocarbons;
2. Brown or other dark colored streaks in flowing stormwater indicates soil erosion or uncontained sediment;
3. Stormwater flowing through straw waddles or other stormwater containment barriers;
4. Foam;
5. Trash and other debris being carried off-site by stormwater; and
6. Overflowing storm drains or detention ponds could be indicative of a clog or poor inlet design.

Routine Facility Inspection Reports

Your routine facility inspections will need to be recorded and documented. Generally, a standard inspection report is taken into the field and completed for each inspection. You should include in your SWPPP a copy of the standard inspection form you will use. An example routine facility inspection form can be found in the “Additional MSGP Documentation Template” on EPA’s website at www.epa.gov/npdes/pubs/msgp2008_recordkeepingtemplate.doc.

SWPPP Tip!

Remember to update your SWPPP if you add, remove, or modify control measures following a routine visual, or other, inspection. Should you get inspected, EPA or the State agency will expect that all control measures identified in your SWPPP to be current and to be effectively implemented at your facility.



Tetra Tech

Figure 15. Example of a sheen indicating the presence of oil or other hydrocarbons.

What to Include in Your SWPPP

Your SWPPP should describe the routine facility inspection process in enough detail that a member of your staff could complete an inspection by following the description in the SWPPP. The SWPPP description should include:

1. Person(s) or positions of person(s) responsible for conducting the routine facility inspections

At least one member of your stormwater pollution prevention team should be involved in the routine facility inspections. Consider involving employees who regularly work in areas where stormwater may come into contact with industrial activity or materials.

2. Schedules for conducting the routine facility inspections

Identify the minimum inspection frequency (e.g., monthly, quarterly) in your SWPPP. Consider scheduling the inspections for a set day every month or quarter, yet allow sufficient flexibility to be able to take advantage of a storm event, since many permits require that at least one inspection be conducted during a rain event.

3. Routine facility inspection procedures

Describe how the routine facility inspection will be conducted, including which control measures or areas will be inspected and what the inspector will be looking for. Examples of things the inspector should be looking for include the condition of stormwater outfalls (trash accumulation, staining, evidence of unauthorized non-stormwater discharges, etc.); overall good housekeeping; and the condition of installed control measures (do any need to be maintained or replaced?).

Among other procedures to describe, provide a description of the sequence you will follow during each inspection. One option is to use the recommended inspection sequence above or customize it to better suit your facility's layout.

4. Reporting procedures

Describe your reporting procedures and include a blank copy of the inspection form that will be used during the routine inspections. Most industrial stormwater general permits require that inspection reports include the following:

- The inspection date and time.
- The name(s), title(s), and signature(s) of the inspector(s).
- Weather information for the day of the inspection and, if appropriate, days or weeks prior to the inspection.
- A description of any discharges observed.
- A description of the visual quality of discharges (sheen, turbid, etc.).
- Control measures in need of maintenance or repairs.
- Control measures that need to be replaced.
- Any incidents of noncompliance observed.
- Additional control measures needed to comply with the permit requirements.

Inspection reports also need to be signed by the inspector. Your inspection form should include a signature line for this.

5.B Visual Assessments

The second component of an effective stormwater inspection program is periodic visual assessments of the stormwater discharging from your facility. Visual assessments are conducted on samples taken during a storm event, and require that you make observations of the stormwater sample in order to qualitatively assess the nature of your discharge based on several visual parameters. This requires that you collect a stormwater sample in a clean, clear jar and look at the sample in a well lit area. Generally, a sample must be collected from each stormwater discharge location associated with industrial activity. The purpose of conducting visual assessments is to make sure that stormwater discharges are free from objectionable characteristics (i.e., pollutants you can see). Should you observe objectionable characteristics, you should backtrack upstream from the sample collection location to identify potential sources of the pollutants.

Some pollutants may be present in stormwater but cannot be seen; for this reason EPA or your State may require benchmark or effluent limit monitoring depending on the facility SIC code or industrial sector. See Section 5.D for more information on monitoring.

Most industrial stormwater permits do not require visual assessment samples to be collected consistent with 40 CFR Part 136 procedures (the Clean Water Act guidelines for

SWPPP Tip!

Check your industrial stormwater permit to determine if you are required to submit your visual assessment samples to a laboratory for analysis. The 2008 MSGP does not require samples to be submitted to a laboratory. However, if your permit does require you to submit samples for laboratory analysis, the samples must be collected and documented in accordance with 40 CFR Part 136 guidelines.

establishing test procedures for the analysis of pollutants); however, visual assessment samples should be collected in such a manner that the samples are representative of the stormwater discharge.

EPA's 2008 MSGP includes specific requirements for when and how to collect the visual assessment sample. You should look in your permit to determine what requirements apply to your facility's visual assessments. However, EPA believes its permit's requirements offer a clear and consistent way to conduct these assessments. They are summarized as follows:

- Collect stormwater samples within the first 30 minutes of an actual discharge from a storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, collect the sample as soon as possible after the first 30 minutes. In this case, be sure to document in your records (kept with your SWPPP) why it was not possible to take samples within the first 30 minutes. In the case of snowmelt, samples must only be taken during a period with a measurable discharge from your site.
- Collect the sample in a clean, clear glass, or plastic container.
- Examine the sample in a well-lit area or, if necessary, illuminate with a strong flashlight.
- Collect the samples from discharges that happen at least 72 hours (3 days) from the previous discharge event.

What to Include in Your SWPPP

Include in your SWPPP a description of your visual assessment process:

1. Person(s) or positions of person(s) responsible for visual assessments.

Note: The visual assessment should be conducted by a member of your stormwater pollution prevention team.

2. Schedules for conducting the visual assessments.

Note: Identify the minimum inspection frequency (typically quarterly) in your SWPPP. You should also describe procedures for determining when to conduct the visual assessments (e.g., within 30 minutes of an actual discharge, at least 3 days from previous discharge, etc.).

3. Specific items to be covered by the assessment (e.g., the 2008 MSGP requires permittees to visually inspect the sample in a well-lit area to assess the following water quality characteristics:

- Color
- Odor
- Clarity
- Floating solids
- Settled solids
- Suspended solids
- Foam
- Oil sheen
- Other obvious indicators of stormwater pollution)

4. The number and locations of outfalls scheduled for visual assessments. List the outfalls where visual assessments will take place, and make sure these locations are identified on your site map.

5. A description of safety considerations, requirements, and equipment for collecting samples during wet weather events.

Note: Sample must be collected in a clean, clear glass (required for oil and grease samples) or plastic container. Describe any other equipment necessary to collect the samples (such as sampling poles for hard to reach outfalls, rain gear, etc.). Describe any necessary safety considerations for staff while collecting the samples (for example, if they are sampling at an outfall discharging into receiving water with high flows, or sampling in a manhole).

6. Reporting procedures: Describe your reporting procedures and include a blank copy of the assessment form that will be used during the visual assessments. Most industrial stormwater general permits require that visual assessment reports include the following:

- Sample location(s)
- Sample collection date and time, and visual assessment date and time for each sample
- The names of individuals, and titles or job positions, collecting the sample and performing 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, why it was not possible to collect samples within the first 30 minutes of discharge.

The SWPPP should also contain a checklist or list of the water quality parameters that must be observed and documented.

Visual Assessment Documentation

Similar to the inspection reports for the routine facility inspections, you must document the results of your visual assessments in a written report. You should include a blank copy of your visual assessment report form that you will use in your SWPPP. An example of a visual assessment report can be found in the “Additional MSGP Documentation Template” on EPA’s website at www.epa.gov/npdes/pubs/msgp2008_recordkeepingtemplate.doc.

Digital photos of the samples are recommended, but not required, to document the condition of the sample and future reference.

5.C Annual Comprehensive Site Inspections

Most industrial stormwater general permits require an annual comprehensive site inspection. The annual comprehensive site inspection is a more in-depth version of the routine facility inspection. The annual comprehensive site inspection evaluates the condition of control measures, taking into account trends observed in analytic and visual stormwater samples taken during the year, and found during routine inspections.

Check your general permit to determine if the comprehensive site inspection needs to be conducted at a certain time (e.g., by the end of the fiscal year). Some permits require you to submit your comprehensive site inspection findings to the State permit authority as part of your annual report, typically due shortly after the end of the fiscal year. EPA’s 2008 MSGP requires that the annual report be submitted and postmarked within 45 days of completing the annual comprehensive site inspection.

The comprehensive site inspection must cover all areas of the facility affected by the requirements of your industrial stormwater general permit, including all potential stormwater pollutant sources identified in the SWPPP, areas where control measures are used to comply with applicable effluent limits, and areas where spills and leaks have been documented in the three years prior to the annual comprehensive site inspection. In addition, the annual inspection must, as appropriate, include a review of visual stormwater monitoring data collected each quarter of the previous year and the results of the routine site inspections.

SWPPP Tip!

EPA’s 2008 MSGP requires you to conduct annual comprehensive site inspections once during each of the following inspection periods:

- Year 1: September 29, 2008 – September 29, 2009
- Year 2: September 29, 2009 – September 29, 2010
- Year 3: September 29, 2010 – September 29, 2011
- Year 4: September 29, 2011 – September 29, 2012
- Year 5: September 29, 2012 – September 29, 2013

Comprehensive site inspections must be conducted by qualified personnel with at least one member of your stormwater pollution prevention team participating in the comprehensive site inspections.

The annual inspection should be preceded by evaluation of the year’s visual stormwater sample observations, analytic monitoring data, and your routine site inspection findings. The overall review of the previous year’s visual and analytic monitoring results will provide you with areas of focus for the annual inspection; however, the annual inspection must include all control measures included in the SWPPP, regardless of the results from the past visual assessments and site inspections. Inspecting all stormwater control measures is meant to ensure that they are functioning correctly, and, if not, to correct any deficiency or malfunction. Accordingly, at the end of the annual comprehensive inspection you, and your stormwater pollution prevention team, should be able to answer the following questions.

- Are the control measures in place, maintained, and operating effectively?
- Is the routine site inspection protocol effective and conducted at the appropriate frequency?
- If your previous visual samples had been indicated the presence of pollutants in your stormwater, and your analytic samples had been found to have high levels of any benchmark pollutants or other pollutants of concern, do you suspect that any particular areas of your site are contributing to these monitoring results? Do you suspect that the improper functioning of any stormwater control measures is contributing to these monitoring results?
- Is the SWPPP up-to-date regarding all of the stated control measures and monitoring schedules?

Based on the answers to these questions, you may need to modify your stormwater management program and to update your SWPPP to address problems found during your inspection.

Comprehensive Site Inspection Documentation

The results, and documentation, of your annual site inspection must be maintained

on-site and, depending on the requirements in your stormwater permit, submitted with your annual report. An example of a comprehensive site inspection report can be found in the “Additional MSGP Documentation Template” on EPA’s website at www.epa.gov/npdes/pubs/msgp2008_recordkeepingtemplate.doc.

What to Include in Your SWPPP

Include in your SWPPP a description of the annual comprehensive site inspection process:

1. Person(s) or positions of person(s) responsible for inspection

Note: Include at least one member of the stormwater pollution prevention team.

2. Schedules for conducting the inspections

Note: Describe when during the year the annual inspection will take place.

3. Describe the list of documents to be reviewed prior to the annual site inspection. This list will typically include:

- The current SWPPP
- All routine inspection reports for the past year
- All visual assessment reports for the past year
- Other documentation that may relate to how your facility complies with stormwater permit requirements, such as maintenance records, spill records, etc. for the past year.

4. A copy of the current SWPPP site map

Note: A current copy of the site map can be used during the comprehensive site inspection to make sure the inspector is covering all required areas.

5. Procedures for how the annual inspection will be conducted. Describe how the annual inspection will be conducted, including which control measures or areas will be inspected and what the inspector will be looking for. Specific items to be covered by the inspection include:

- 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 replacement, maintenance, or repair.

6. A copy of the annual site inspection form you will use.

Note: EPA’s 2008 MSGP has a comprehensive site inspection form in Appendix I of EPA’s 2008 MSGP. Your annual site inspection form should contain:

- The date of the inspection;
- The name(s) and title(s) of the personnel making the inspection;
- Findings from the areas of your facility that were examined;
- All observations relating to the implementation of your control measures including:
 - Previously unidentified discharges from the site,
 - Previously unidentified pollutants in existing discharges,
 - Evidence of, or the potential for, pollutants entering the drainage system;
 - Evidence of pollutants discharging to receiving waters at all facility outfall(s), and the condition of and around the outfall, including flow dissipation measures to prevent scouring, and
 - Additional control measures needed to address any conditions requiring corrective action identified during the inspection.
- Any required revisions to the SWPPP resulting from the inspection;
- Any incidents of noncompliance observed or a certification stating the facility is in compliance with this permit (if there is no noncompliance); and
- A statement, signed and certified in accordance with Appendix B, Subsection 11 of EPA’s 2008 MSGP.

7. A schedule for completing and submitting (if required) the annual site inspection form/report in a timely manner.

5.D Documentation of Monitoring Procedures

Your industrial stormwater general permit may include requirements to conduct stormwater discharge monitoring. The type of monitoring you are required to conduct will likely be based on your type of industrial activity. Not all types of industrial activity will be required to collect stormwater discharge samples, however, if your facility is required to conduct monitoring (such as benchmark monitoring or effluent limitation guideline monitoring), you must describe the procedures you will use to carry out this monitoring in your SWPPP.

EPA has prepared an *Industrial Stormwater Monitoring and Sampling Guide* (available at www.epa.gov/npdes/stormwater/msgp)

that will support this guide. The *Industrial Stormwater Monitoring and Sampling Guide* provides a more detailed description of monitoring approaches and procedures that are recommended than is included in this guide.

As a general matter, your stormwater discharge samples will be taken at your facility's stormwater outfall locations, not at locations within your facility. Some stormwater general permits allow you to sample at only one outfall when multiple outfalls at your facility have similar industrial activities, control measures, exposed materials, and runoff coefficients. Outfalls that have these similar characteristics are called "substantially identical outfalls" or "representative outfalls." See your industrial stormwater general permit for more information.

What to Include in Your SWPPP

Include in your SWPPP, a description of the following monitoring requirements:

1. What you need to monitor

Make sure your SWPPP clearly identifies the parameters you need to monitor, and any applicable benchmark concentrations or effluent limits associated with each parameter.

2. Where you need to monitor

Your site map should identify the outfalls at your facility. In your SWPPP, identify at which outfalls you will be required to monitor. If you are allowed to sample one of the outfalls that are "substantially identical", and you plan on using a representative outfall, include the following documentation in your SWPPP:

- Location of each substantially identical outfall;
- Description of the general industrial activities conducted in the drainage area of each substantially identical outfall;
- Description of the control measures implemented in the drainage area of each substantially identical outfall;
- Description of the exposed materials located in the drainage area of each substantially identical 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%); and
- Why the outfalls are expected to discharge substantially identical effluents.

3. When you need to monitor

If you are required to monitor, your industrial stormwater general permit will specify a monitoring frequency (typically quarterly or annually). For each of the parameters you identified above, include in your SWPPP the monitoring frequency. Some permits also specify exemptions or alternative monitoring periods, which should also be addressed in your SWPPP.

Your SWPPP should also describe the type of storm event that should be monitored. In the 2008 MSGP, EPA requires monitoring during a storm event those results in an actual discharge from your site ("measurable storm event") that follows the preceding measurable storm event by at least 72 hours (3 days).

4. How you will conduct the monitoring

Describe in your SWPPP how you will conduct the monitoring, including who will collect the samples. Typically, monitoring is conducted by taking one grab sample from a discharge resulting from a measurable storm event and collected within the first 30 minutes of a measurable storm event, during normal business hours, when stormwater is discharging from your facility.

Also describe any sample documentation and preservation procedures you plan to use. Some samples may need to be analyzed within a short time, or may need to be preserved with blue ice before being analyzed.

5. Where you will send the sample for analysis

Finally, in your SWPPP, include information about the laboratory where you will send the samples for analysis. Include information such as lab name and address, any sampling procedures required by the lab, and who will take the samples to the lab.

Section 6: Completing Your SWPPP

Now that you have conducted a site assessment of your facility, developed maps, selected control measures, and developed procedures for inspections and monitoring. You are almost done with your SWPPP! The last step is to make sure all this information is organized into a single document (your SWPPP) and to obtain NPDES permit coverage.

6.A Finish your SWPPP

The information you put together as part of Sections 3 through 5 make up the contents of your SWPPP. There are only two more steps for you to finish before your SWPPP is complete:

- Conduct a final review of your SWPPP; and
- Sign and certify your SWPPP

Review Your Draft SWPPP

You should review the SWPPP requirements in your industrial stormwater general permit to ensure that your SWPPP includes all required elements. For example, in the 2008 MSGP, the SWPPP requirements are in Part 5. Check off all the SWPPP permit requirements as you verify that they have been met. Also, develop a final copy of your site map and make sure that all required elements are addressed.

EPA recommends that you have both your stormwater pollution prevention team, and someone who was not involved in developing the SWPPP, review your draft SWPPP.

Sign and Certify Your SWPPP

The last step in completing your SWPPP is to have a facility executive or duly authorized representative of that executive sign and certify that the SWPPP meets all the requirements in the general permit. This signature demonstrates that the SWPPP was reviewed by someone who has operational control over the facility (i.e., can commit resources to implementing the SWPPP and ensuring compliance with the permit). You should check your general permit to determine which person is required to sign and certify the SWPPP. Note that the signatory requirements for the 2008 MSGP are found in Appendix B, Subsection 11 of EPA's 2008 MSGP.

6.B Obtain NPDES Permit Coverage

Important! Before obtaining permit coverage, you should read the appropriate industrial stormwater permit and develop your SWPPP.

Most permits require that you develop your SWPPP before you can obtain NPDES permit coverage for your industrial stormwater discharges. However, in some instances, the permit may provide you with additional time to complete or update a SWPPP after permit coverage is obtained. Nevertheless, it is recommended that your SWPPP be completed at least in draft form prior to applying for permit coverage, even in those States where additional time is granted.

Obtaining Coverage Under a General Permit

To obtain coverage under a State industrial stormwater general permit, you will typically need to fill out and submit an application form, often called a Notice of Intent or

NOI. Submitting an NOI form to the permitting authority indicates your certification that you have met the eligibility requirements for coverage under the permit, and your agreement to abide by the terms and conditions of the general permit. Depending on the permit, you may be authorized to discharge immediately or at some later time. In some cases, you are not authorized to discharge until the State has notified you accordingly. EPA's 2008 MSGP (see Part 1.3.1) uses a 30 to 60-day waiting period following the receipt of a facility's complete NOI. The waiting period expires when the permit's status changes from "waiting" to "active" on the Agency's eNOI website.

Read the application requirements in your general permit for information on the procedures and the specific form you will need to complete before becoming authorized. Some States charge an administrative fee to apply for permit coverage. Before submitting your application, you must also make sure that you meet all eligibility requirements in the permit. For example, if your facility discharges to one of several highly protected waters (e.g., a Tier 3 or "Outstanding Natural Resource Water"), you may not be eligible for coverage under a general permit and instead may have to file an application for individual permit coverage.

SWPPP Tip!

Documentation to Support Eligibility Considerations Under Other Federal Laws

The 2008 MSGP requires that you keep with your SWPPP the documentation supporting your eligibility pertaining to endangered species requirements, historic properties requirements, and NEPA review requirements described in the permit (see Part 5.1.6 of the permit). State industrial stormwater permits may have other documentation requirements.

6.C Updating Your SWPPP

Your SWPPP is a document that will need to be reviewed and updated on a regular basis. Whenever you find the need to change a procedure that is described in your SWPPP or to modify a control measure described therein, you must update the SWPPP to reflect those changes as quickly as practicable. Should the SWPPP require modification to document corrective actions, a new certification statement must be signed and dated upon completion of the revision.

Below are some examples of events that, if they result in a change in control measures or procedures, will require prompt revision of the SWPPP to reflect the new facility conditions.

- A change in the composition of the stormwater pollution prevention team or new responsible official.
- An unauthorized release or discharge (e.g., spill, leak, or discharge of non-stormwater not authorized by this or another NPDES permit) occurs at your facility.
- A discharge violates a numeric effluent limit.
- You become aware, or EPA determines, that your control measures are not stringent enough for the discharge to meet applicable water quality standards;
- An inspection or evaluation of your facility by an EPA official, or local, State, or Tribal entity, determines that modifications to the control measures are necessary to meet the non-numeric effluent limits in this permit.
- Construction or a change in design, operation, or maintenance at your facility significantly changes the nature of pollutants discharged in stormwater from your 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 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 a review of control measures and possible SWPPP modification.

Remember, revisions to the SWPPP to document corrective actions requires a new signed and dated certification statement by the responsible official. All other changes must be signed and dated by the person preparing the change.

SWPPP Tip!

In the interim between the annual inspection and completed SWPPP revision, keep a copy of the original SWPPP with your handwritten notes for SWPPP modifications at the facility. Should you be inspected before the revised SWPPP is complete, the copy with your notes can be used to demonstrate the changes that will be in the revised document.

Section 7: Keeping Records of Your Implementation Activities

Completing your SWPPP and obtaining NPDES permit coverage is an important step towards complying with your State or EPA Clean Water Act requirements. Having completed these steps, you are now ready to begin documenting your compliance with the requirements of your permit. EPA's 2008 MSGP and many State permits require you to keep records of any activities at your site that are related to your compliance, such as conducting inspections, visual assessments, stormwater discharge monitoring, and corrective actions.

As you conduct inspections, monitoring, corrective actions, and other permit implementation activities, you will generate additional records, such as inspection reports and monitoring results. Keep this additional documentation on-site with your SWPPP, and ensure these records are accessible, complete, and up-to-date so that they demonstrate your full compliance with the conditions of your permit.

Some examples of this additional documentation include:

- *Permit records* – copies of the NOI or permit application submitted, any letters received from the permitting authority, and a copy of your general permit.
- *Spill records* – dates of any incidences of significant spills, leaks, or other releases that resulted in a discharge of pollutants, the circumstances leading to the release, actions taken in response to the release, and measures taken to prevent the recurrence of a release.
- *Employee training records* – keep copies of all employee training records, including dates, who was trained, and the training topics.
- *Maintenance records* – retain copies of all maintenance and repairs of control measures, including dates of regular maintenance, dates when maintenance needs were discovered, and dates when control measures were returned to full function.
- *Inspection records* – keep copies of all routine facility inspection reports, quarterly visual assessment reports, and annual comprehensive site inspection reports.
- *Monitoring records* – retain records of all sampling results including data collection forms, lab results, and discharge monitoring reports (DMRs).
- *Corrective action records* – keep records of any corrective actions and follow-up activities conducted to demonstrate compliance with the permit.

SWPPP Tip!

For 2008 MSGP permit holders, the list of additional documentation requirements can be found in Part 5.4 of the permit. Also, EPA has developed an “Additional MSGP Documentation Template” with sample forms that you can download from www.epa.gov/npdes/stormwater/msgp to help you organize this information.

Section 8: Common Compliance Problems at Industrial Facilities

The following are common problems found during inspections of industrial sites conducted by EPA. These are provided to assist you in developing and maintaining an effective SWPPP. As a general matter, it is not enough to simply have a completed SWPPP at your site. To establish compliance with your permit's limits and conditions, you must also implement the procedures, and install and maintain the control measures, described in your SWPPP, and make modifications as necessary to improve your performance.

You should review these common compliance problems and consider how your SWPPP, or how your implementation of the procedures described in your SWPPP, can be modified to ensure you are not making the same mistakes.

1. **No SWPPP developed.** Some facilities do not realize that they need to develop a SWPPP, or they may copy a generic SWPPP or a SWPPP for another facility. A SWPPP is a site-specific plan and should address only your facility.
2. **Control measures described in SWPPP not used.** The SWPPP identifies stormwater control measures that are not actually being used at the site. The stormwater regulations hold you responsible for effectively implementing all control measures identified in your SWPPP. If your SWPPP has identified control measures not being used at your site, you need to edit your SWPPP accordingly to accurately reflect those measures you are in fact using.
3. **No SWPPP on-site.** A copy of the SWPPP is not available on-site for review when a permitting authority or other regulatory agency inspects your site. You are responsible for maintaining a copy on-site at all times. If your SWPPP is being updated off-site, keep a marked-up copy on-site or an electronic copy until the revised SWPPP arrives.
4. **SWPPP not signed.** The responsible facility representative did not sign and authorize the current version of the SWPPP.
5. **Stormwater pollution prevention team not up-to-date.** The stormwater pollution prevention team identified in the SWPPP is not current. This is particularly a problem at facilities with high turnover. Remember, you can identify team members by title rather than by name if high turnover makes it difficult to keep a current list of names.
6. **On-site staff not familiar with SWPPP.** Upon arrival of an inspector, no one familiar with the stormwater program is available. A common permit requirement is that at least one employee per shift is familiar with the stormwater program and has access to the relevant files.



Tetra Tech

Figure 16. Good housekeeping is probably the most common BMP in SWPPPs. Poor sweeping practices can contribute significant pollutants in stormwater runoff.



Tetra Tech

Figure 17. Leaking dumpsters can introduce pollutants into stormwater runoff.

SWPPP Tip!

SWPPP Availability – Keep a copy of the current, signed and certified SWPPP at your facility, and make it available to EPA, State, local agency or other regulatory agency staff at the time of an onsite inspection or upon request. The SWPPP should also be made easily available to facility staff, and should be readily referred to during regular facility operations to ensure that all activities are implemented as described in the SWPPP.

7. **Improper collection of visual assessment samples.** Visual stormwater samples are collected from pooled areas on site. Pooled areas tend to concentrate pollutants and are not representative, unless the contents of the pooled areas flow off of the facility (this is to your disadvantage).
8. **Uncovered dumpsters.** Dumpsters that receive metal waste are not covered or contained. Dumpsters from contract waste collection agencies are often not appropriately sealed and can leak oils or other contaminants.
9. **Poor employee/contract staff training.** Employees or contract staff are not familiar with your stormwater management program. You are responsible for educating employees and contractors because if they release pollutants at your facility, you are responsible. If you use contractors, they should be referred to in your SWPPP and required to be trained as a part of the contract.
10. **Inspection or monitoring records are not kept with the SWPPP.** Records of routine site inspections, visual assessments, or monitoring results are not available with the SWPPP for review. All records on implementation of practices required in the permit must be kept with the SWPPP (see Section 6.C for more information).

Resources

EPA, 2008 Multi-Sector General Permit, issued September 29, 2008 (available at www.epa.gov/npdes/stormwater/msgp).

EPA's Stormwater Website – www.epa.gov/npdes/stormwater

Industrial Stormwater Resource Locator – www.envcap.org/iswrl/

EPA's Industrial Stormwater Website – www.epa.gov/npdes/stormwater/indust

EPA's 2008 MSGP Website – www.epa.gov/npdes/stormwater/msgp

The Industrial Stormwater and MSGP Websites have a number of resources and tools to aid MSGP permittees, which include:

- *Annual Reporting Form* – Permittees can use this form to report their annual comprehensive site inspection and corrective actions to EPA.
- *Conditional “No Exposure” Exclusion* – Industrial facilities can use this form to certify that their industrial materials and operations are not exposed to stormwater.
- *Developing your Stormwater Pollution Prevention Plan: A Guide for Industrial Operators* – Provides guidance on how to develop a SWPPP that meets the requirements of the 2008 MSGP.
- *Electronic Notice of Intent (eNOI) System* – Allows permittees to quickly apply for permit coverage under EPA's 2008 MSGP.
- *Industrial Stormwater Monitoring and Sampling Guide* – Provides guidance on how to meet the monitoring and sampling requirements in the 2008 MSGP.
- *Industrial Sector Fact Sheets* – These fact sheets summarize the types of facilities included that sector, the pollutants associated with this sector, and the types of stormwater control measures generally used.
- *List of Tier 2 and Tier 3 Waters* – Lists of waters currently designated by states as Tier 2 or Tier 3 for antidegradation purposes to help you complete your NOI.
- *MSGP Discharge Monitoring Report (MDMR)* – Permittees can use this paper copy form to submit monitoring data to EPA.
- *Reporting MSGP Monitoring Data* – Allows permittees to electronically file all benchmark, effluent limitation guidelines, and impaired waters monitoring data through the eNOI system.
- *Sample MSGP SWPPP Template* – Industrial facilities can use the “Industrial SWPPP Template” to create their own SWPPPs.
- *Sample Recordkeeping Templates* – Use the sample templates and forms to keep records of your monitoring, inspection, maintenance, visual evaluation, and corrective action activities.
- *Search, Sort, and View Industrial NOIs* – Searchable database of stormwater notices of intent (NOIs) for industrial facilities seeking coverage under EPA's MSGP.
- *Water Locator Tool* – Helps industrial facilities pinpoint their site's latitude and longitude, receiving water, and impairment status of the water, applicable total maximum daily loads (TMDLs), and potential pollutants of concern.

EPA's NPDES Authorization Status Website – www.epa.gov/npdes/stormwater/authorizationstatus

EPA's Menu of National Stormwater BMPs – www.epa.gov/npdes/stormwater/menuofbmps

Industrial Stormwater Permit Guide – www.pneac.org/stormwater/

Appendix A: MSGP SWPPP Template

EPA has created a template to assist operators in developing an industrial SWPPP that addresses the requirements in the 2008 MSGP. The template includes instructions and space to help operators document activities specific to their facility, such as:

- Facility Description and Contact Information
- Potential Pollutant Sources
- Stormwater Control Measures
- Schedules and Procedures for Monitoring
- Inspections
- Documentation to Support Eligibility Considerations under Other Federal Laws
- SWPPP Certification
- SWPPP Modifications
- SWPPP Attachments

A customizable Microsoft Word version of the MSGP SWPPP Template is available for download from www.epa.gov/npdes/stormwater/msgp.

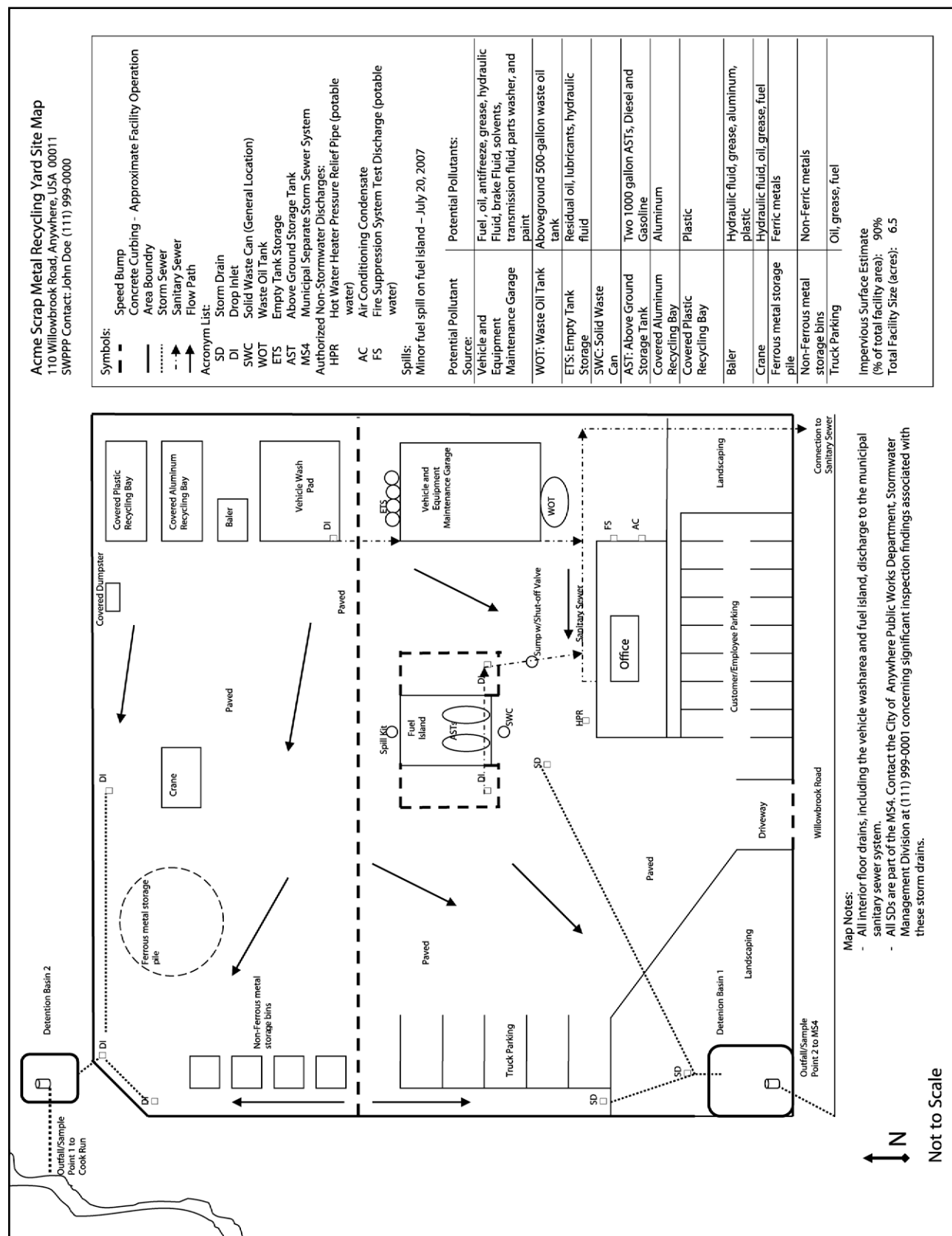
Appendix B: Additional MSGP Documentation Template

EPA has created a template to assist 2008 MSGP permit holders in collecting the additional documentation required during implementation of the permit. The Additional MSGP Documentation Template includes example forms and tables to help permittees document activities related to:

- Significant spills, leaks or other releases
- Employee training
- Maintenance
- Routine Facility Inspection Reports
- Quarterly Visual Assessment Reports
- Comprehensive Site Inspection Reports
- Monitoring results
- Deviations from assessment or monitoring schedule
- Benchmark Exceedances
- Impaired Waters Monitoring: Documentation of Natural Background Sources or Non-Presence of Impairment Pollutant
- Active/Inactive status change
- SWPPP Amendment Log

The Additional MSGP Documentation template can be downloaded in Microsoft Word format at www.epa.gov/npdes/stormwater/msgp.

Appendix C: Example Site Map



Certificate of Completion

This certifies that

Leonard Frank Sandoval

Has successfully completed

**EPA - Developing Your Stormwater
Pollution Prevention Plan**

Completed On 11/3/2016 12:51 PM MT

Instructor

Annual MSGP SWPPP Training by Leonard Sand

Date: **Monday, December 11, 2017**



NAME	Z#	SIGNATURE	
Allen Vasquez	313551	<i>[Signature]</i>	1
Ivan Chacon	099404	<i>[Signature]</i>	2
Abel Martinez	320904	<i>[Signature]</i>	3
Richard Martinez	205905	<i>[Signature]</i>	4
Adrian Trujillo	304295	<i>[Signature]</i>	5
Anthony Salazar	311070	<i>[Signature]</i>	6
Jack Caldwell	116986	<i>[Signature]</i>	7
Silvano Tucker	096056	<i>[Signature]</i>	8
Michael Martinez	094285	<i>[Signature]</i>	9
Vicki Morales	260694	<i>[Signature]</i>	10
Joseph Martinez	231521	<i>[Signature]</i>	11
Kandy Martinez	294724	<i>[Signature]</i>	12
Richard Gonzales	088660	<i>[Signature]</i>	13
Dwayne Sanchez	323015	<i>[Signature]</i>	14
Kevin Montoya	306999	<i>[Signature]</i>	15
Juan Lopez	302357	<i>[Signature]</i>	16
LARRY VELASQUEZ	257145	<i>[Signature]</i>	17
Thomas Atencia	321830	<i>[Signature]</i>	18
Alexander Trujillo	307018	<i>[Signature]</i>	19
Johnny Trujillo	326569	<i>[Signature]</i>	20
José González	267605	<i>[Signature]</i>	21
Duane Pacheco	119194	<i>[Signature]</i>	22
Steve Trujillo	241824	<i>[Signature]</i>	23
Sandra Gonzales	219366	<i>[Signature]</i>	24
Vania Hernandez	236804	<i>[Signature]</i>	25
Karen J. Chy	235414	<i>[Signature]</i>	26
Ernest E. Charley	322463	<i>[Signature]</i>	27
Vicente M. Martinez	314173	<i>[Signature]</i>	28
			29
			30

Annual MSGP SWPPP Training by Leonard Sand

Date: **Monday, December 11, 2017**



NAME	Z#	SIGNATURE	
Thomas Martinez	326925	Thomas Mtz	1
Josue Cordero	320595		2
Leslie McArnolds	106896		3
Richard Salazar	224911	Richard Salazar	4
Raymond Baca	202778	Raymond Baca	5
Jon Antone	320599	Jon Antone	6
Mark Pacheco	231736	Mark Pacheco	7
Adam Espinoza	117037	Adam Espinoza	8
Joe Boies	224950	Joe Boies	9
Billy Samora	216719	Billy S	10
Betty Montoya	181675	Betty Montoya	11
Dennis Garcia	319111	Dennis Garcia	12
Jesse Garcia	241499	Jesse Garcia	13
Cesar Molina	204566	Cesar Molina	14
Dernadette Lopez	174810	Dernadette Lopez	15
Joe Sandoval	170847	Joe Sandoval	16
Arnold S. Munoz	324145	Arnold S. Munoz	17
Andrew L Ortiz	248187	Andrew L Ortiz	18
Leroy Gonzalez	170592	Leroy Gonzalez	19
Paul Sisneros	318677	Paul Sisneros	20
Eleanor Austin	315231	Eleanor Austin	21
Kevin B. Martinez	322719	Kevin B. Martinez	22
Stephen Baca	241628	Stephen Baca	23
Daniel Martinez	312910	Daniel Martinez	24
Billy Medina	168429	Billy Medina	25
James Rodriguez	131610	James Rodriguez	26
			27
			28
			29
			30

Annual MSGP SWPPP Training by Leonard Sand

Date: Monday, December 11, 2017



NAME	Z#	SIGNATURE	
Dana Parrott	170040	<i>[Signature]</i>	1
Victor Bustos	244917	<i>[Signature]</i>	2
Bryan Veight	320601	<i>[Signature]</i>	3
DERRICK AMADOR	320889	<i>[Signature]</i>	4
Alfred Jaramilla	292839	<i>[Signature]</i>	5
Joseph Tyree	326571	<i>[Signature]</i>	6
Buschman PETE	92792	<i>[Signature]</i>	7
Bernie Anchuleta	131484	<i>[Signature]</i>	8
Fermin Maes	305370	<i>[Signature]</i>	9
James Osborn	175205	<i>[Signature]</i>	10
Luigi Robert	173018	<i>[Signature]</i>	11
Wilder John B	193103	<i>[Signature]</i>	12
Greg John B	204711	<i>[Signature]</i>	13
James M. Valdez	260847	<i>[Signature]</i>	14
Vicente Saenz	327230	<i>[Signature]</i>	15
Tammy Jo Saiz	205687	<i>[Signature]</i>	16
Louis C Chacón	321819	<i>[Signature]</i>	17
Julian C Martinez	320075	<i>[Signature]</i>	18
Michael Rodriguez	230658	<i>[Signature]</i>	19
ANN FORREST	302411	<i>[Signature]</i>	20
Aaron Chavez	310805	<i>[Signature]</i>	21
Sean Wharri	320806	<i>[Signature]</i>	22
Jeffrey Martinez	267098	<i>[Signature]</i>	23
Ben Martinez	214327	<i>[Signature]</i>	24
Daniel Carballe	293053	<i>[Signature]</i>	25
Mark A. Lopez	219923	<i>[Signature]</i>	26
Patricia Lopez	169389	<i>[Signature]</i>	27
Joseph Sanchez	310817	<i>[Signature]</i>	28
Joe Medina	154217	<i>[Signature]</i>	29
			30



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

SWPPP Training

2017

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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)**
- 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)

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MSGP 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)

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Best Management Practices (BMPs)

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

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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.



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Best Management Practices (BMPs)

Good House Keeping

- Covered and enclosed trash bins minimize debris on site. Periodic sweeping of parking lots reduces 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..



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Best Management Practices (BMPs)

Run-on/off and 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 can be used for stabilized stormwater drainage and erosion control.



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Best Management Practices (BMPs) Run-on/off and Erosion Control

- Spill Protection:
 - Secondary containment units provide extra spill protection for oil-filled equipment, tanks and drums as well as chemicals and waste drums/containers.



Micro-Blaze®
Emergency Liquid Spill Control

- Spill kits, clean-up materials (such as dry absorbents and drip pads) can be used to mitigate spills and prevent releases to the environment.



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Best Management Practices (BMPs) Spill Control/Reporting

Know where spill
clean-up materials are
located in your work
areas.

Report spills
immediately to
your supervisor.
Additional contacts
are provided in the
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.

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



Report a Spill

SEO (EM&R):
667-6211

EPC-CP:
667-0666
or Spill Pager
664-7722

Roads & Grounds:
667-6111

WMCs Spill Pager:
664-5864

LOG-MSS DEP:
665-1893



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MSPG Samplers & Outfalls

■ Samplers

- Automated collection during storm events
- Data Logger at SIO
- 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



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MSGP 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 (Example)

Monitoring Type	Location	Parameters		Numeric Limitations	Schedule
Benchmark	Sampler: MSGP02001 Outfall #002 Sandia Canyon	Total Aluminum*		0.681 mg/L	Quarterly
		Total Iron		1.0 mg/L	
		Total Zinc1*		0.076 mg/L	
		Nitrate plus Nitrite Nitrogen		0.68 mg/L	
Impaired Waters	Sampler: MSGP02001 Outfall #002 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	

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Notice of Intent to Discharge

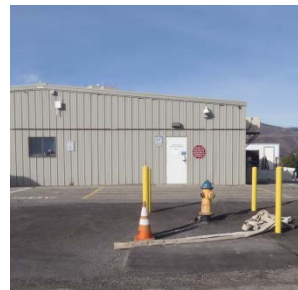
■ Potable Water

- Residual water from the hose with a backflow preventer used to fill the water trucks
- When needed for dust suppression



■ Sugar Beet De-Icer

- Maximum of 10,300 gallons per day of salt brine geo-melt as an anti-icing and de-icing solution to be applied onto roadways and parking lots



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MSGP – SWPPP Inspections

- **Monthly Routine Inspections**
 - Performed by DEP, 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

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MSGP - 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.

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MSGP – 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**

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SWPPP Location and Contacts

- Electronic versions of SWPP Plans can be found online on the public reading room at:
- 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

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APPENDIX J

Corrective Action Reports

CERTIFICATION FOR CORRECTIVE ACTIONS

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

Printed Name: Russell Stone

Title: UI ESH Manager 4

Signature: Russell Stone

Digitally signed by Russell Stone
DN: cn=Russell Stone, o=DSESH-UI,
ou=ADESH, email=rdstone@lanl.gov,
c=US
Date: 2018.02.09 10:19:05 -07'00'

Date: _____

MSGP_CORRECTIVEACTIONREPORT

Corrective Action Header

Corrective Action Details

NPDES MSGP CORRECTIVE ACTION REPORTId. Number : 1248(Assigned by computer)

* Name of Facility : TA-60 Asphalt Batch PlantList

* Date problem was identified : 12/13/2017 11:25Date of Notification to EPC-CP : 12/13/2017 11:25

* FOD Responsible for CA (Name & Org) : UIFErickson Andrew W

Describe Specific Evaluation Location : Outfall 043 at the TA-60 Asphalt Batch Plant

* Inspector Z-Number : 118432Wheeler Holly LEPC-CP

* Person Identifying Condition Z-Number : 118432Wheeler Holly LEPC-CP

Date Format Must be entered as MM/DD/YYYY HH24:MI

* required fields

Enter New Corrective ActionBack To Record SelectionSaveCancel

Prev Rec.Next Rec.Print Summary

MSGP_CORRECTIVEACTIONREPORT
Corrective Action Header
Corrective Action Details

3. Identify the condition triggering the need for this review:
If other, (describe here):

Numeric effluent limitation exceedance
List

4. Briefly describe the nature of problem identified: (e.g., Erosion problem identified during inspection).

The result for Total Suspended Solids discharged from outfall 043 exceeds the daily maximum effluent limitation. The concentration of 27.4 mg/L discharged during the storm event on 10/05/2017 and the daily maximum limit is 23 mg/L.

6. How problem was identified:
If other, (describe here):

Effluent limitation guidelines monitoring
List

7. Description of corrective action taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications, repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, basis for that determination:

On 12/19/2017 the Terra tubes at the mouth to the concrete apron that discharges to monitored outfall 043 were replaced in an effort to address the exceedance for TSS.

8. Was the problem identified at an outfall that is Substantially Identical? Yes/No : N

9. Which SIO Affected?

10. If yes, provide documentation of how corrective action taken is appropriate for all related SIOs:

11. Did/will this corrective action require modification of your SWPPP ? Yes/No : Y

12. Date corrective action initiated (MM/DD/YYYY HH24:MI): 12/14/2017 00:00 OR expected completion :

13. Date corrective action completed (MM/DD/YYYY HH24:MI): 12/19/2017 00:00

14. If corrective action is not or will not be completed within 14 days of discovery, describe any remaining steps and the formal schedule necessary to complete the corrective action:

Facility personnel need to evaluate potential pollutant sources of Total Suspended Solids and implement additional controls to ensure discharge of this pollutant source in stormwater is minimized. If finalization of corrective action(s) exceeds 14 days, documentation of why it is infeasible to complete the corrective action within the 14 day timeframe must be provided along with a schedule for completion. SWPPP modifications

15. Date EPA Notified of Intent to Exceed 45 Days (MM/DD/YYYY HH24:MI):

* required fields
List Values

Prev Rec.
Next Rec.

BackToRecordSelection

Save
Cancel

n Date
0:00
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0:00

MSGP_CORRECTIVEACTIONREPORT

Corrective Action Header

Corrective Action Details

NPDES MSGP CORRECTIVE ACTION REPORTId. Number : 1254(Assigned by computer)

* Name of Facility : TA-60 Asphalt Batch PlantList

* Date problem was identified : 12/18/2017 13:20Date of Notification to EPC-CP : 12/18/2017 13:20

* FOD Responsible for CA (Name & Org) : UIFErickson Andrew W

Describe Specific Evaluation Location : TA-60 Asphalt Batch Plant south of Eniwetok Road

* Inspector Z-Number : 118432Wheeler Holly LEPC-CP

* Person Identifying Condition Z-Number : 118432Wheeler Holly LEPC-CP

Date Format Must be entered as MM/DD/YYYY HH24:MI

* required fields

Enter New Corrective ActionBack To Record SelectionSaveCancel

Prev Rec.Next Rec.Print Summary

MSGP_CORRECTIVEACTIONREPORT	
Corrective Action Header	Corrective Action Details
<p>* 3. Identify the condition triggering the need for this review:</p> <p>Unauthorized release or discharge List If other, (describe here):</p>	
<p>* 4. Briefly describe the nature of problem identified: (e.g., Erosion problem identified during inspection).</p> <p>At the TA-60 Asphalt Batch Plant, there are numerous small stains under heavy equipment trucks south of Eniwetok Road.</p>	
<p>* 6. How problem was identified:</p> <p>Routine facility inspection List If other, (describe here):</p>	
<p>* 7. Description of corrective action taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications, repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, basis for that determination:</p> <p>On 12/19/2017 the affected area on asphalt was sprayed with Micro-Blaze.</p>	
<p>8. Was the problem identified at an outfall that is Substantially Identical? Yes/No : N</p>	
<p>9. Which SIO Affected?</p>	
<p>10. If yes, provide documentation of how corrective action taken is appropriate for all related SIOs:</p>	
<p>* 11. Did/will this corrective action require modification of your SWPPP ? Yes/No : N</p>	
<p>* 12. Date corrective action initiated (MM/DD/YYYY HH24:MI): 12/19/2017 00:00 OR expected completion :</p>	
<p>* 13. Date corrective action completed (MM/DD/YYYY HH24:MI): 12/19/2017 00:00</p>	
<p>14. If corrective action is not or will not be completed within 14 days of discovery, describe any remaining steps and the formal schedule necessary to complete the corrective action:</p> <p>On 12/19/2017 the affected area on asphalt was sprayed with Micro-Blaze.</p>	
<p>15. Date EPA Notified of Intent to Exceed 45 Days (MM/DD/YYYY HH24:MI):</p>	
<p><small>* required fields</small></p> <p>List Values Prev Rec. Next Rec. BackToRecordSelection Save Cancel</p>	

MSGP_CORRECTIVEACTIONREPORT	
Corrective Action Header	Corrective Action Details
3. Identify the condition triggering the need for this review:	If other, (describe here):
Control measures inadequate to meet non-numeric e	List
4. Briefly describe the nature of problem identified: (e.g., Erosion problem identified during inspection).	
At the TA-60 Asphalt Batch Plant there is some erosion on the east side of the pond.	
6. How problem was identified:	If other, (describe here):
Routine facility inspection	List
7. Description of corrective action taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications, repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, basis for that determination:	
On 12/19/2017 angular rock was used to fix the erosion on the east side of the pond.	
8. Was the problem identified at an outfall that is Substantially Identical? Yes/No : N	
9. Which SIO Affected?	
10. If yes, provide documentation of how corrective action taken is appropriate for all related SIOs:	
11. Did/will this corrective action require modification of your SWPPP ? Yes/No : N	
12. Date corrective action initiated (MM/DD/YYYY HH24:MI): 12/19/2017 00:00 OR expected completion :	
13. Date corrective action completed (MM/DD/YYYY HH24:MI): 12/19/2017 00:00	
14. If corrective action is not or will not be completed within 14 days of discovery, describe any remaining steps and the formal schedule necessary to complete the corrective action:	
N/A	
15. Date EPA Notified of Intent to Exceed 45 Days (MM/DD/YYYY HH24:MI):	
*required fields	
List Values	Prev Rec. Next Rec.
BackToRecordSelection	
Save Cancel	

MSGP_CORRECTIVEACTIONREPORT	
Corrective Action Header	Corrective Action Details
NPDES MSGP CORRECTIVE ACTION REPORT	
Id. Number : 1256	(Assigned by computer)
* Name of Facility : TA-60 Asphalt Batch Plant <input type="button" value="List"/>	
* Date problem was identified : 12/18/2017 13:30	* Date of Notification to EPC-CP : 12/18/2017 13:30
* FOD Responsible for CA (Name & Org) : UIF Erickson Andrew W	
Describe Specific Evaluation Location : At TA-60 Asphalt Batch Plant in front of flume.	
* Inspector Z-Number : 118432 Wheeler Holly L	EPC-CP
* Person Identifying Condition Z-Number : 118432 Wheeler Holly L	EPC-CP
<p>Date Format Must be entered as MM/DD/YYYY HH24:MI</p>	
<p><small>* required fields</small></p>	
<input type="button" value="Enter New Corrective Action"/> <input type="button" value="Back To Record Selection"/> <input type="button" value="Save"/> <input type="button" value="Cancel"/>	
<input type="button" value="Prev Rec."/> <input type="button" value="Next Rec."/> <input type="button" value="Print Summary"/>	

MSGP_CORRECTIVEACTIONREPORT	
Corrective Action Header	Corrective Action Details
<p>3. Identify the condition triggering the need for this review: If other, (describe here):</p> <p>Control measures not properly operated or maintained List</p>	
<p>4. Briefly describe the nature of problem identified: (e.g., Erosion problem identified during inspection).</p> <p>At the TA-60 Asphalt Batch Plant the existing Terra Tubes need to be replaced.</p>	
<p>6. How problem was identified: If other, (describe here):</p> <p>Routine facility inspection List</p>	
<p>7. Description of corrective action taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications, repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, basis for that determination:</p> <p>On 12/19/2017 the existing Terra Tubes at the mouth to the concrete apron that discharges to monitored outfall 043 were replaced.</p>	
<p>8. Was the problem identified at an outfall that is Substantially Identical? Yes/No : N</p>	
<p>9. Which SIO Affected? List</p>	
<p>10. If yes, provide documentation of how corrective action taken is appropriate for all related SIOs:</p>	
<p>11. Did/will this corrective action require modification of your SWPPP ? Yes/No : N</p>	
<p>12. Date corrective action initiated (MM/DD/YYYY HH24:MI): 12/19/2017 00:00 OR expected completion :</p>	
<p>13. Date corrective action completed (MM/DD/YYYY HH24:MI): 12/19/2017 00:00</p>	
<p>14. If corrective action is not or will not be completed within 14 days of discovery, describe any remaining steps and the formal schedule necessary to complete the corrective action:</p> <p>N/A</p>	
<p>15. Date EPA Notified of Intent to Exceed 45 Days (MM/DD/YYYY HH24:MI): List</p>	
<p>* required fields</p> <p>List Values Prev Rec. Next Rec. BackToRecordSelection Save Cancel</p>	

MSGP_CORRECTIVEACTIONREPORT	
Corrective Action Header	Corrective Action Details
NPDES MSGP CORRECTIVE ACTION REPORT	
Id. Number : 1086 (Assigned by computer)	
Name of Facility :	TA-60 Asphalt Batch Plant <input type="button" value="List"/>
Date problem was identified :	04/17/2017 00:00 Date of Notification to EPC-CP : 04/17/2017 00:00
FOD Responsible for CA (Name & Org) :	UIF Erickson Andrew W
Describe Specific Evaluation Location : TA-60 Asphalt Batch Plant	
Inspector Z-Number :	114326 Sandoval Leonard F DESHS-UIS
Person Identifying Condition Z-Number :	<input type="text"/> <input type="text"/> <input type="text"/>
Date Format Must be entered as MM/DD/YYYY HH24:MI	
* required fields	
<input type="button" value="Enter New Corrective Action"/> <input type="button" value="Back To Record Selection"/> <input type="button" value="Save"/> <input type="button" value="Cancel"/>	
<input type="button" value="Prev Rec."/> <input type="button" value="Next Rec."/> <input type="button" value="Print Summary"/>	

MSGP_CORRECTIVEACTIONREPORT		Date
Corrective Action Header	Corrective Action Details	
* 3. Identify the condition triggering the need for this review: <input type="text"/> Other (describe) : <input type="button" value="List"/> Hardened Tar in Secondary Containment		0:00
* 4. Briefly describe the nature of problem identified: (e.g., Erosion problem identified during inspection). At the NE corner of the Asphalt Emulsion concrete secondary containment there's hardened tar that needs to be cleaned up.		0:00
* 6. How problem was identified: <input type="button" value="List"/> If other, (describe here): <input type="text"/>		0:00
* 7. Description of corrective action taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications, repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, basis for that determination: At the NE corner of the Asphalt Emulsion concrete secondary containment there's hardened tar that needs to be cleaned up.		0:00
* 8. Was the problem identified at an outfall that is Substantially Identical? Yes/No : <input checked="" type="radio"/> N		0:00
* 9. Which SIO Affected? <input type="text"/>		0:00
* 10. If yes, provide documentation of how corrective action taken is appropriate for all related SIOs: <input type="text"/>		0:00
* 11. Did/will this corrective action require modification of your SWPPP ? Yes/No : <input checked="" type="radio"/> N		0:00
* 12. Date corrective action initiated (MM/DD/YYYY HH24:MI): 04/17/2017 00:00 OR expected completion :		0:00
* 13. Date corrective action completed (MM/DD/YYYY HH24:MI): 04/17/2017 00:00 <input type="text"/>		0:00
* 14. If corrective action is not or will not be completed within 14 days of discovery, describe any remaining steps and the formal schedule necessary to complete the corrective action: The hardened tar at the NE corner of the Asphalt Emulsion concrete secondary conatainment was cleaned up with a flat shovel and placed into a metal tar pot and will be heated and re-used.		0:00
* 15. Date EPA Notified of Intent to Exceed 45 Days (MM/DD/YYYY HH24:MI): <input type="text"/>		0:00
<div style="display: flex; justify-content: space-between;"> * required fields </div> <div style="display: flex; justify-content: space-around;"> <input type="button" value="List Values"/> <input type="button" value="Prev Rec."/> <input type="button" value="Next Rec."/> <input type="button" value="BackToRecordSelection"/> <input type="button" value="Save"/> <input type="button" value="Cancel"/> </div>		

MSGP_CORRECTIVEACTIONREPORT	
Corrective Action Header	Corrective Action Details
NPDES MSGP CORRECTIVE ACTION REPORT	
Id. Number : 1087 (Assigned by computer)	
* Name of Facility :	TA-60 Asphalt Batch Plant [List]
* Date problem was identified :	04/17/2017 00:00 * Date of Notification to EPC-CP : 04/17/2017 00:00
* FOD Responsible for CA (Name & Org) :	UIF Erickson Andrew W
Describe Specific Evaluation Location : TA-60 Asphalt Batch Plant	
* Inspector Z-Number :	114326 Sandoval Leonard F DESHS-UIS
* Person Identifying Condition Z-Number :	[] [] []
Date Format Must be entered as MM/DD/YYYY HH24:MI	
* required fields	
<input type="button" value="Enter New Corrective Action"/> <input type="button" value="Back To Record Selection"/> <input type="button" value="Save"/> <input type="button" value="Cancel"/>	
<input type="button" value="Prev Rec."/> <input type="button" value="Next Rec."/> <input type="button" value="Print Summary"/>	

MSGP - CORRECTIVE ACTION REPORT		Date
Corrective Action Header	Corrective Action Details	
3. Identify the condition triggering the need for this review: If other, (describe here): Other (describe) : <input type="text" value="List"/> 55 gallon drum with metal parts		0:00
4. Briefly describe the nature of problem identified: (e.g., Erosion problem identified during inspection). South of and adjacent to the Baghouse 60-0235 of the Asphalt Batch plant there is a black and red 55 gallon drum with metal parts for the Asphalt Batch plant that doesn't have a lid to the drum.		0:00
6. How problem was identified: If other, (describe here): Routine facility inspection <input type="text" value="List"/>		0:00
7. Description of corrective action taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications, repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, basis for that determination: South of and adjacent to the Baghouse 60-0235 of the Asphalt Batch plant there is a black and red 55 gallon drum with metal parts for the Asphalt Batch plant that doesn't have a lid to the drum. In order to help prevent the 55 gallon drum with metal parts from filling up with rain water a lid needs to be placed on the drum or the drum needs to be moved under a covered area.		0:00
8. Was the problem identified at an outfall that is Substantially Identical? Yes/No : <input type="text" value="N"/>		0:00
9. Which SIO Affected? <input type="text"/>		0:00
10. If yes, provide documentation of how corrective action taken is appropriate for all related SIOs: <input type="text"/>		0:00
11. Did/will this corrective action require modification of your SWPPP ? Yes/No : <input type="text" value="N"/>		0:00
12. Date corrective action initiated (MM/DD/YYYY HH24:MI): <input type="text" value="04/17/2017 00:00"/> OR expected completion :		0:00
13. Date corrective action completed (MM/DD/YYYY HH24:MI): <input type="text" value="04/24/2017 00:00"/>		0:00
14. If corrective action is not or will not be completed within 14 days of discovery, describe any remaining steps and the formal schedule necessary to complete the corrective action: In order to help prevent the 55 gallon drum with metal parts from filling up with rain water the drum was moved under a covered area on 4/24/2017		0:00
15. Date EPA Notified of Intent to Exceed 45 Days (MM/DD/YYYY HH24:MI): <input type="text"/>		0:00
<div> <div>* required fields</div> <div> <input type="button" value="List Values"/> <input type="button" value="Prev Rec."/> <input type="button" value="Next Rec."/> <input type="button" value="BackToRecordSelection"/> <input type="button" value="Save"/> <input type="button" value="Cancel"/> </div> </div>		

MSGP CORRECTIVE ACTION REPORT	
Corrective Action Header	Corrective Action Details
NPDES MSGP CORRECTIVE ACTION REPORT	
Id. Number : 1100 (Assigned by computer)	
Name of Facility :	TA-60 Asphalt Batch Plant <input type="button" value="List"/>
Date problem was identified :	05/17/2017 00:00 Date of Notification to EPC-CP : 05/17/2017 00:00
FOD Responsible for CA (Name & Org) :	UIF Erickson Andrew W
Describe Specific Evaluation Location : Southwest corner of concrete secondary containment.	
Inspector Z-Number :	114326 Sandoval Leonard F DESHS-UIS
Person Identifying Condition Z-Number :	<input type="text"/> <input type="text"/> <input type="text"/>
Date Format Must be entered as MM/DD/YYYY HH24:MI	
* required fields	
<input type="button" value="Enter New Corrective Action"/> <input type="button" value="Back To Record Selection"/> <input type="button" value="Save"/> <input type="button" value="Cancel"/>	
<input type="button" value="Prev Rec."/> <input type="button" value="Next Rec."/> <input type="button" value="Print Summary"/>	

MSGP_CORRECTIVEACTIONREPORT	
Corrective Action Header	Corrective Action Details
3. Identify the condition triggering the need for this review: If other, (describe here): Other (describe) : <input type="text"/> <input type="button" value="List"/> <input type="text" value="Staining on base course"/>	
4. Briefly describe the nature of problem identified: (e.g., Erosion problem identified during inspection). <div style="border: 1px solid black; padding: 5px; min-height: 40px;"> On the southwest corner of the secondary containment there is a small staining on base course. </div>	
6. How problem was identified: If other, (describe here): Other (describe) : <input type="text"/> <input type="button" value="List"/> <input type="text" value="SPCC Annual Inspection"/>	
7. Description of corrective action taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications, repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, basis for that determination: <div style="border: 1px solid black; padding: 5px; min-height: 40px;"> A small trash bag of contaminated soil was collected as N.M. Special Waste and the affected area on base course was sprayed with micro-blaze. </div>	
8. Was the problem identified at an outfall that is Substantially Identical? Yes/No : <input checked="" type="radio"/> N	
9. Which SIO Affected? <input type="text"/>	
10. If yes, provide documentation of how corrective action taken is appropriate for all related SIOs: <div style="border: 1px solid black; padding: 5px; min-height: 40px;"></div>	
11. Did/will this corrective action require modification of your SWPPP ? Yes/No : <input checked="" type="radio"/> N	
12. Date corrective action initiated (MM/DD/YYYY HH24:MI): <input type="text" value="05/17/2017 00:00"/> OR expected completion :	
13. Date corrective action completed (MM/DD/YYYY HH24:MI): <input type="text" value="05/17/2017 00:00"/> <input type="text"/>	
14. If corrective action is not or will not be completed within 14 days of discovery, describe any remaining steps and the formal schedule necessary to complete the corrective action: <div style="border: 1px solid black; padding: 5px; min-height: 40px;"> A small trash bag of contaminated soil was collected as N.M. Special Waste and the affected area on base course was sprayed with micro-blaze. </div>	
15. Date EPA Notified of Intent to Exceed 45 Days (MM/DD/YYYY HH24:MI): <input type="text"/>	
<div> <div>* required fields</div> <div> <input type="button" value="List Values"/> <input type="button" value="Prev Rec."/> <input type="button" value="Next Rec."/> <input type="button" value="BackToRecordSelection"/> <input type="button" value="Save"/> <input type="button" value="Cancel"/> </div> </div>	

MSGP_CORRECTIVEACTIONREPORT	
Corrective Action Header	Corrective Action Details
NPDES MSGP CORRECTIVE ACTION REPORT	
Id. Number : 1139 (Assigned by computer)	
Name of Facility :	TA-60 Asphalt Batch Plant <input type="button" value="List"/>
Date problem was Identified :	07/17/2017 00:00 Date of Notification to EPC-CP : 07/17/2017 00:00
FOD Responsible for CA (Name & Org) :	UIF Erickson Andrew W
Describe Specific Evaluation Location : Elevated Platform West of 60-233	
Inspector Z-Number :	114326 Sandoval Leonard F DESHS-UIS
Person Identifying Condition Z-Number :	<input type="text"/> <input type="text"/> <input type="text"/>
Date Format Must be entered as MM/DD/YYYY HH24:MI	
*required fields	
<input type="button" value="Enter New Corrective Action"/> <input type="button" value="Back To Record Selection"/> <input type="button" value="Save"/> <input type="button" value="Cancel"/>	
<input type="button" value="Prev Rec."/> <input type="button" value="Next Rec."/> <input type="button" value="Print Summary"/>	

MSGP_CORRECTIVEACTIONREPORT	
Corrective Action Header	Corrective Action Details
* 3. Identify the condition triggering the need for this review: <input type="text"/> Other (describe) : <input type="button" value="List"/> <input type="text"/> If other, (describe here): Product Material Improperly Stored	
* 4. Briefly describe the nature of problem identified: (e.g., Erosion problem identified during inspection). <input type="text"/> West of 60-233 on a elevated platform with stairs there's two 5 gallon plastic containers and hand pump sprayer full of asphalt release agent improperly stored outside.	
* 6. How problem was identified: <input type="button" value="List"/> <input type="text"/> If other, (describe here):	
* 7. Description of corrective action taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications, repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, basis for that determination: <input type="text"/> The two 5 gallon plastic containers and hand pump sprayer full of asphalt release agent need to be stored inside a covered structure instead of outside.	
8. Was the problem identified at an outfall that is Substantially Identical? Yes/No : <input checked="" type="radio"/> N	
9. Which SIO Affected? <input type="text"/>	
10. If yes, provide documentation of how corrective action taken is appropriate for all related SIOs: <input type="text"/>	
* 11. Did/will this corrective action require modification of your SWPPP ? Yes/No : <input checked="" type="radio"/> N	
* 12. Date corrective action initiated (MM/DD/YYYY HH24:MI): <input type="text"/> 07/17/2017 00:00 OR expected completion :	
* 13. Date corrective action completed (MM/DD/YYYY HH24:MI): <input type="text"/> 07/18/2017 00:00	
14. If corrective action is not or will not be completed within 14 days of discovery, describe any remaining steps and the formal schedule necessary to complete the corrective action: <input type="text"/> The two 5 gallon plastic containers and hand pump sprayer full of asphalt release agent were moved into a small storage shed with a door and after each day of being used will be return to the shed for storage.	
15. Date EPA Notified of Intent to Exceed 45 Days (MM/DD/YYYY HH24:MI): <input type="text"/>	
* required fields <input type="button" value="List Values"/> <input type="button" value="Prev Rec."/> <input type="button" value="Next Rec."/> <input type="button" value="BackToRecordSelection"/> <input type="button" value="Save"/> <input type="button" value="Cancel"/>	

MSGP_CORRECTIVEACTIONREPORT

Corrective Action Header Corrective Action Details

NPDES MSGP CORRECTIVE ACTION REPORT Id. Number : 750 (Assigned by computer)

Name of Facility : TA 60 Asphalt Batch Plant Date problem was Identified : 09/09/2015

Date of Notification to ENV-RCRA : 09/09/2015

FOD Responsible for CA (Name & Org) : UIF Erickson Andrew W

Describe Specific Evaluation Location : Flex Hose Oil Leak on the South End of the Secondary Containme

Inspector Z-Number : 114326 Sandoval Leonard F DESHS-UIS

* required fields

MSGP_CORRECTIVEACTIONREPORT

Corrective Action Header Corrective Action Details

3. Identify the condition triggering the need for this review: If other, (describe here):
Unauthorized release or discharge

4. Briefly describe the nature of problem identified: (e.g., Erosion problem Identified during inspection).
A flex hose on the South end of the Asphalt Batch Plant and above of the secondary conatainment is leaking oil.

6. How problem was identified: If other, (describe here):
Other (describe) : Site Visit

7. Description of corrective action taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications, repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, basis for that determination:
At the TA-60 Asphalt Batch Plant, absorbent was used for initial clean up of the leak. The flex hose was replaced. The affected area within the secondary containment was sprayed with Micro-Blaze.

8. Did/will this corrective action require modification of your SWPPP ? Yes/No :

9. Date corrective action Initlated (MM/DD/YYYY):

10. Date corrective action completed (MM/DD/YYYY): OR expected completion :

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 time frames associated with each step) necessary to complete corrective action:

* required fields

MSGP_CORRECTIVEACTIONREPORT

Corrective Action Header Corrective Action Details

NPDES MSGP CORRECTIVE ACTION REPORT Id. Number : 767 (Assigned by computer)

Name of Facility : TA-60 Asphalt Batch Plant Date problem was identified : 09/14/2015

Date of Notification to ENV-RCRA : 09/14/2015

FOD Responsible for CA (Name & Org) : UIF Erickson Andrew W

Describe Specific Evaluation Location : TA-60 Asphalt Batch Plant

Inspector Z-Number : 118432 Wheeler Holly L ENV-CP

* required fields

MSGP_CORRECTIVEACTIONREPORT

Corrective Action Header Corrective Action Details

3. Identify the condition triggering the need for this review: If other, (describe here):
Numeric effluent limitation exceedance List

4. Briefly describe the nature of problem identified: (e.g., Erosion problem identified during inspection).
The 30-day average for Total Suspended Solids (TSS) at the TA-60 Asphalt Batch Plant exceeded the numeric effluent limit. The average from storm events on 7/7/2015, 7/15/2015 and 7/20/2015 was 72 mg/L.

6. How problem was identified: If other, (describe here):
Other (describe) : List Evaluation of data.

7. Description of corrective action taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications, repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, basis for that determination:
Control measures must be evaluated to prevent future exceedances of ELGs.

8. Did/will this corrective action require modification of your SWPPP ? Yes/No : ☒ Y

9. Date corrective action initiated (MM/DD/YYYY): 09/14/2015

10. Date corrective action completed (MM/DD/YYYY): 09/29/2015 OR expected completion :

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 time frames associated with each step) necessary to complete corrective action:
On 9/29/2015 the rock and liner was removed from the pond and on 9/30/2015 the depth of the pond was dug 2 feet deeper to help increase the holding capacity and retention time of storm water in order to allow sediment to settle to the bottom of the pond before storm water discharges to the MSGP sampler.

required fields

List Values Prev Rec. Next Rec. BackToRecordSelection Save Cancel

MSGP_CORRECTIVEACTIONREPORT

Corrective Action Header Corrective Action Details

NPDES MSGP CORRECTIVE ACTION REPORT Id. Number : 799 (Assigned by computer)

Name of Facility : TA 60 Asphalt Batch Plant Date problem was Identified : 09/14/2015

Date of Notification to ENV-RCRA : 09/14/2015

FOD Responsible for CA (Name & Org) : UIF Erickson Andrew W

Describe Specific Evaluation Location : South side of the Asphalt Batch Plant

Inspector Z-Number : 118432 Wheeler Holly L ENV-CP

* required fields

MSGP_CORRECTIVEACTIONREPORT

Corrective Action Header Corrective Action Details

3. Identify the condition triggering the need for this review: If other, (describe here):
Control measures not properly operated or maintain

4. Briefly describe the nature of problem identified: (e.g., Erosion problem identified during inspection).
At the TA-60 Asphalt Batch Plant, the berm on the south side of the site needs to be lengthened so it covers the entire south side. The berm is essentially gone on the west end and is covered by gravel at the NW corner of the site.

5. How problem was identified: If other, (describe here):
Comprehensive site inspection

6. Description of corrective action taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications, repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, basis for that determination:
Extend the berm to cover the entire length of the south side of the site. Rebuild the berm at the NW corner and west end.

7. Did/will this corrective action require modification of your SWPPP ? Yes/No :

8. Date corrective action Initiated (MM/DD/YYYY):

9. Date corrective action completed (MM/DD/YYYY): OR expected completion :

10. 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 time frames associated with each step) necessary to complete corrective action:
The entire berm was rebuilt to address the issues at the NW corner and west end and was also extended to cover the entire length of the south side of the site.

* required fields

MSGP_CORRECTIVEACTIONREPORT

Corrective Action Header Corrective Action Details

NPDES MSGP CORRECTIVE ACTION REPORT Id. Number : 800 (Assigned by computer)

Name of Facility : TA 60 Asphalt Batch Plant Date problem was identified : 09/14/2015

Date of Notification to ENV-RCRA : 09/14/2015

FOD Responsible for CA (Name & Org) : UIF Erickson Andrew W

Describe Specific Evaluation Location : Northern portion of the Asphalt Batch Plant

Inspector Z-Number : 118432 Wheeler Holly L ENV-CP

* required fields

MSGP_CORRECTIVEACTIONREPORT

Corrective Action Header

Corrective Action Details

3. Identify the condition triggering the need for this review: Control measures inadequate to meet non-numeric c List If other, (describe here):

4. Briefly describe the nature of problem identified: (e.g., Erosion problem identified during inspection).
 Leaks, runoff or overspray of ZEP was evident all around the product container in the area where dump truck beds are sprayed with the substance to prevent asphalt mix from sticking to the beds.

6. How problem was identified: Comprehensive site inspection List If other, (describe here):

7. Description of corrective action taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications, repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, basis for that determination:
 Per Part 2.1.2.4 of the MSGP, you must minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop plans for effective response to such spills if or when they occur in order to minimize pollutant discharges. Staining was evident around the ZEP product container.

8. Did/will this corrective action require modification of your SWPPP ? Yes/No : Y

9. Date corrective action initiated (MM/DD/YYYY): 09/14/2015

10. Date corrective action completed (MM/DD/YYYY): 09/16/2015 OR expected completion :

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 time frames associated with each step) necessary to complete corrective action:
 The ZEP product container is currently on secondary containment and the affected area around the container has been sprayed with micro-blaze.

required fields

List Values

Prev Rec.

Next Rec.

BackToRecord Selection

Save

Cancel

MSGP_CORRECTIVEACTIONREPORT

Corrective Action Header | **Corrective Action Details**

NPDES MSGP CORRECTIVE ACTION REPORT Id. Number : 923 (Assigned by computer)

* Name of Facility : TA-60 Asphalt Batch Plant Date problem was identified : 07/05/2016

* Date of Notification to ENV-RCRA : 07/05/2016

* FOD Responsible for CA (Name & Org) : UIF Erickson Andrew W

Describe Specific Evaluation Location : Just to the West of the TA-60 Asphalt Batch Plant

* Inspector Z-Number : 114326 Sandoval Leonard F DESHS-UIS

* required fields

MSGP_CORRECTIVEACTIONREPORT

Corrective Action Header Corrective Action Details

3. Identify the condition triggering the need for this review: If other, (describe here):

4. Briefly describe the nature of problem identified: (e.g., Erosion problem identified during inspection).

6. How problem was identified: If other, (describe here):

7. Description of corrective action taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications, 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 (MM/DD/YYYY):

10. Date corrective action completed (MM/DD/YYYY): OR expected completion :

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 time frames associated with each step) necessary to complete corrective action:

* required fields

APPENDIX J1

Documentation of Repairs and Maintenance of Control Measures

Documentation of Maintenance and Repairs of Control Measures (BMPs)

You must maintain all control measures that are used to achieve the effluent limits required by the 2015 MSGP in effective operating condition. If you find that your control measures need to be replaced or repaired, you must make the necessary repairs or modifications as expeditiously as practicable.

[illegible]

APPENDIX K

Critical Habitat Documentation for LANL

Endangered Species Habitat Within Los Alamos National Laboratory

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.

Scale

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: OIO-DO-GIS Team
Date: February 21, 2014
Map Document Reference: X:\Projects\14-Projects\14-0020\14-0020

Map Produced by OIO-DO-GIS Team
Date: February 21, 2014,
Map Document Reference: X:\Projects\14-Projects\14-0020\14-0020



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

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

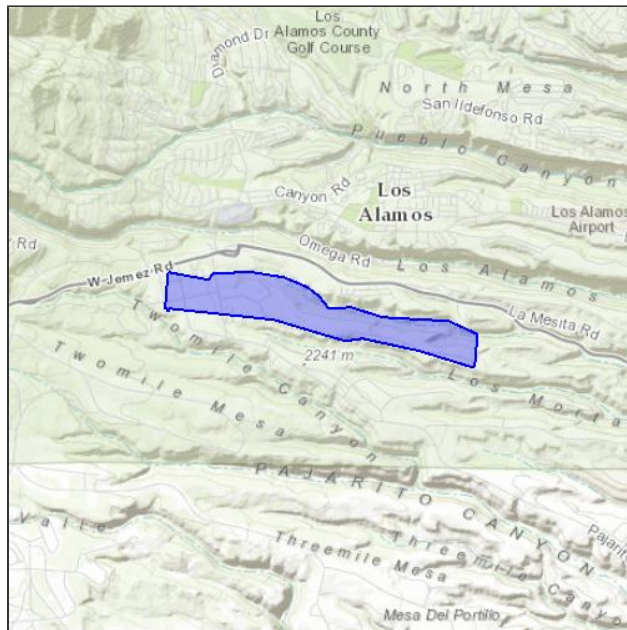
LXATM-TI5EJ-BAJEQ-3NC5E-SOGYTE

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 <i>Haliaeetus leucocephalus</i> Season: Wintering https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B008	Bird of conservation concern
Bendire's Thrasher <i>Toxostoma bendirei</i> Season: Breeding	Bird of conservation concern
Brewer's Sparrow <i>Spizella breweri</i> Season: Migrating https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HA	Bird of conservation concern
Brown-capped Rosy-finch <i>Leucosticte australis</i> Season: Wintering	Bird of conservation concern
Burrowing Owl <i>Athene cunicularia</i> Season: Breeding	Bird of conservation concern
Cassin's Finch <i>Carpodacus cassinii</i> Year-round	Bird of conservation concern
Flammulated Owl <i>Otus flammeolus</i> Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0DK	Bird of conservation concern
Fox Sparrow <i>Passerella iliaca</i> Season: Wintering	Bird of conservation concern
Golden Eagle <i>Aquila chrysaetos</i> Year-round https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0DV	Bird of conservation concern
Grace's Warbler <i>Dendroica graciae</i> Season: Breeding	Bird of conservation concern
Juniper Titmouse <i>Baeolophus ridgwayi</i> Year-round	Bird of conservation concern
Lewis's Woodpecker <i>Melanerpes lewis</i> Year-round	Bird of conservation concern
Loggerhead Shrike <i>Lanius ludovicianus</i> Year-round https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FY	Bird of conservation concern

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 tubercid 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

LA-UR-14-21863

*Approved for public release;
distribution is unlimited.*

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

Author(s): Environmental Protection Division
Resources Management Team

Intended for: Reference purposes

Date: March 2014



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ACRONYMS

AEI	Area of Environmental Interest
BA	biological assessment
Bd	Batrachochytrium dendrobatidis
BSL-3	Biosafety Level 3
COPCs	chemicals of potential concern
DARHT	Dual-Axis Radiographic Hydrodynamic Test (Facility)
dB	Decibel
DDT	(dichloro-diphenyl-trichloroethane)
DOE	U.S. Department of Energy
EPA	Environmental Protection Agency
ESA	Endangered Species Act of 1973
fc	foot candles
FR	Federal Register
GIS	geographic information system
HMP	Threatened and Endangered Species Habitat Management Plan
HVAC	heating, ventilation, and air conditioning
LANL	Los Alamos National Laboratory
NEPA	National Environmental Policy Act
NMED	New Mexico Environment Department
NPDES	National Pollutant Discharge Eliminations System
PCBs	polychlorinated biphenyls
PR-ID	Permits and Requirements Identification
SME	subject matter expert
USFWS	U.S. Fish and Wildlife Service

I. THREATENED AND ENDANGERED SPECIES HABITAT MANAGEMENT PLAN GENERAL OVERVIEW

1.0 INTRODUCTION

Los Alamos National Laboratory's (LANL) Threatened and Endangered Species Habitat Management Plan (HMP) was prepared to fulfill a commitment made in the U.S. Department of Energy's (DOE) "Final Environmental Impact Statement for the Dual-Axis Radiographic Hydrodynamic Test Facility Mitigation Action Plan" (DOE 1996). The HMP received concurrence from the U.S. Fish and Wildlife Service (USFWS) in 1999 (USFWS consultation numbers 2-22-98-I-336 and 2-22-95-I-108). In this 2014 update, we retained the management guidelines from the 1999 HMP for listed species, updated some descriptive information, and added the Jemez Mountains salamander (*Plethodon neomexicanus*), which was federally listed in September 2013 (USFWS consultation number 02ENNM00-2014-I-0014).

2.0 ROLE OF SITE PLANS IN THE HMP

The purpose of the HMP is to provide a management strategy for the protection of threatened and endangered species and their habitats on LANL property. The HMP consists of site plans for federally listed threatened or endangered species with a moderate or high probability of occurring at LANL. The following federally listed threatened or endangered species currently have site plans at LANL: Mexican Spotted Owl (*Strix occidentalis lucida*), Southwestern Willow Flycatcher (*Empidonax trailii extimus*), and the Jemez Mountains salamander. Site plans provide guidance to ensure that LANL operations do not adversely affect threatened or endangered species or their habitats.

3.0 DESCRIPTION OF AREAS OF ENVIRONMENTAL INTEREST

Suitable habitats for federally listed threatened and endangered species have been designated as Areas of Environmental Interest (AEIs). AEIs are geographical units at LANL that are managed for the protection of federally listed species and consist of core habitat areas and buffer areas. The purpose of the core habitat is to protect areas essential for the existence of the specific threatened or endangered species. This includes the appropriate habitat type for breeding, prey availability, and micro-climate conditions. The purpose of buffer areas is to protect core areas from undue disturbance and habitat degradation.

Site plans identify restrictions on activities within the AEIs. Allowable activities are activities that the USFWS has reviewed and provided concurrence that these activities are not likely to adversely affect federally listed species. Activities discussed in site plans include day-to-day activities causing disturbance (hereafter referred to as "disturbance activities"), such as access into an AEI, and long-term impacts, such as habitat alteration.

3.1 Definition and Role of Developed Areas in AEI Management

Summary: Habitat alteration is not restricted in developed areas unless it impacts undeveloped core areas of an AEI (e.g., noise and light impacts on a core area). Current ongoing disturbance activities are not restricted in developed areas. Disturbance activities not currently ongoing are

restricted when impacts occur to undeveloped core areas of an AEI that are occupied by a threatened or endangered species.

Developed areas include all building structures, paved roads, improved gravel roads, paved and unpaved parking lots, and firing sites. The extent of developed areas in each AEI was determined using two methods. First, LANL geographic information system (GIS) analysts placed a 15 m (49 ft) border around all buildings and parking lots. For paved and improved gravel roads, the developed area was defined as the area to a roadside fence, if one exists within 9 m (30 ft) of the road, or 5 m (15 ft) on each side of the road, if there is no fence within 9 m (30 ft). If an area of highly fragmented habitat was enclosed by roads, a security fence, or connected buildings, that area was also classified as developed. Developed areas at firing sites were defined as a circle with a 91-m (300-ft) radius from the most centrally located firing pad. Second, LANL GIS analysts overlaid scanned orthophotos onto a map of the Los Alamos area and digitized all areas that appeared developed. These two information sources were overlaid and combined, so that areas classified as developed by either method were considered developed in final maps and analyses. Some areas were confirmed by ground surveys, such as the firing sites. Developed areas are contained in the HMP GIS database.

Developed areas are located in the core and/or buffer of some AEIs. However, developed areas do not constitute suitable habitat for federally listed species. Current ongoing activities in developed areas constitute a baseline condition for the AEIs and are not restricted. New activities including further development within already existing developed areas are not restricted unless they impact undeveloped portions of an AEI core. For example, if light or noise from a new office building in a developed area were to raise levels in an undeveloped core area, those light and noise levels would be subject to the guidelines on habitat alterations. If a proposed action within a developed area does not meet site plan guidelines, it must be individually reviewed for compliance with the Endangered Species Act of 1973 (ESA).

Building a new structure or clearing land within a previously designated developed area in an AEI core does not add to the size of the developed area. New structures in core areas will not be given any developed-area border unless they are individually reviewed for ESA compliance.

Development occurring in the developed area in an AEI buffer can be given a 15 m (49 ft) developed-area border at the discretion of the project leader or facility manager. To expand the size of a developed area in a buffer based on new developments, please contact a LANL biological resources subject matter expert (SME) (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

3.2 General Description of Buffer Areas and Allowable Buffer Area Development

Summary: Limited future development is allowed in the currently undeveloped DOE-controlled buffer area under the guidelines of this HMP as long as it does not alter habitat in the undeveloped AEI core (including light and noise guidelines). Development beyond the cap established for each AEI, or greater than 2 ha (5 ac) in size including the developed-area border, requires independent review for ESA compliance.

The purpose of buffer areas is to protect core areas from undue disturbance or habitat degradation. The current levels of development in buffer and core areas represent baseline conditions for this

HMP. No further development is allowed in the core area under the guidelines of this HMP. A limited amount of development is allowed in buffer areas. Under the guidelines of this HMP, individual development projects are limited to 2 ha (5 ac) in size, including a 15 m (49 ft) developed-area border around structures and a 5 m (15 ft) developed-area border around paved and improved gravel roads. Projects greater than 2 ha (5 ac) in area require individual review for ESA compliance (see exceptions for fuels management activities and utility corridor maintenance). New development projects in AEI buffer areas must be reported to LANL biological resources SMEs for tracking (<http://int.lanl.gov/environment/bio/controls/index.shtml>). Descriptions of each of the AEIs give the total area in each buffer area available for development.

3.3 Emergency Actions

Summary: Contact DOE and LANL biological resources SMEs as soon as possible.

If safety and/or property is immediately threatened by something occurring within an AEI (for example, wildfire, water line breakage, etc.) managers may activate emergency actions. Contact a LANL biological resources SME (<http://int.lanl.gov/environment/bio/controls/index.shtml>), the Environmental Stewardship Group (1-505-665-8855), or the DOE Los Alamos Field Office (Field Office; 1-505-667-6819) as soon as possible. If the emergency occurs outside of regular business hours, contact the Emergency Management Office (1-505-667-6211). This office will then communicate with the appropriate LANL and DOE Field Office personnel.

4.0 IMPLEMENTATION OF SITE PLANS

4.1 Roles and Responsibilities

Summary: LANL's facility managers and operational staff are responsible for ensuring that activities are reviewed for compliance with all applicable site plans. Figure 1 illustrates the process for utilizing site plans. If activities follow approved guidance, there is no requirement for additional ESA regulatory compliance. However, additional National Environmental Policy Act (NEPA), cultural resources, wetlands, or other regulatory compliance actions may be required.

If an activity or project occurs outside of all LANL AEIs and will not impact habitat within an AEI, it does not have to be reviewed for ESA compliance, unless it is a large project. Projects that are larger than 2 ha (5 ac) or cost more than \$5 million require an individual ESA compliance review, even if they are not located within an AEI.

LANL's facility managers are responsible for determining if operations within their geographic and/or programmatic area of responsibility comply with the guidelines in these site plans. Submission of a Permits and Requirements Identification (PR-ID) for a new or modified project is required under Program Description 400 (LANL 2013) and allows managers to identify the requirements within their project area. Deployed environmental professionals and core LANL biological resources SMEs are available to support facility managers. If activities follow site plan guidelines, they do not require any additional ESA regulatory compliance action. However, NEPA, cultural resources, wetlands, or other regulatory compliance actions are not addressed in site plans and additional compliance actions may be required. It is the responsibility of the project leader or facility management staff to ensure that all requirements are satisfied. If you have

questions, contact biological, cultural, NEPA, or other environmental SMEs. Contacts can be found at <http://int.lanl.gov/environment/compliance/ier/index.shtml>.

A single facility may have one or more AEIs within its boundary and the AEIs may be for different species. Some AEIs overlap. In areas where overlap occurs, project managers must follow the guidelines for AEIs of all involved species.

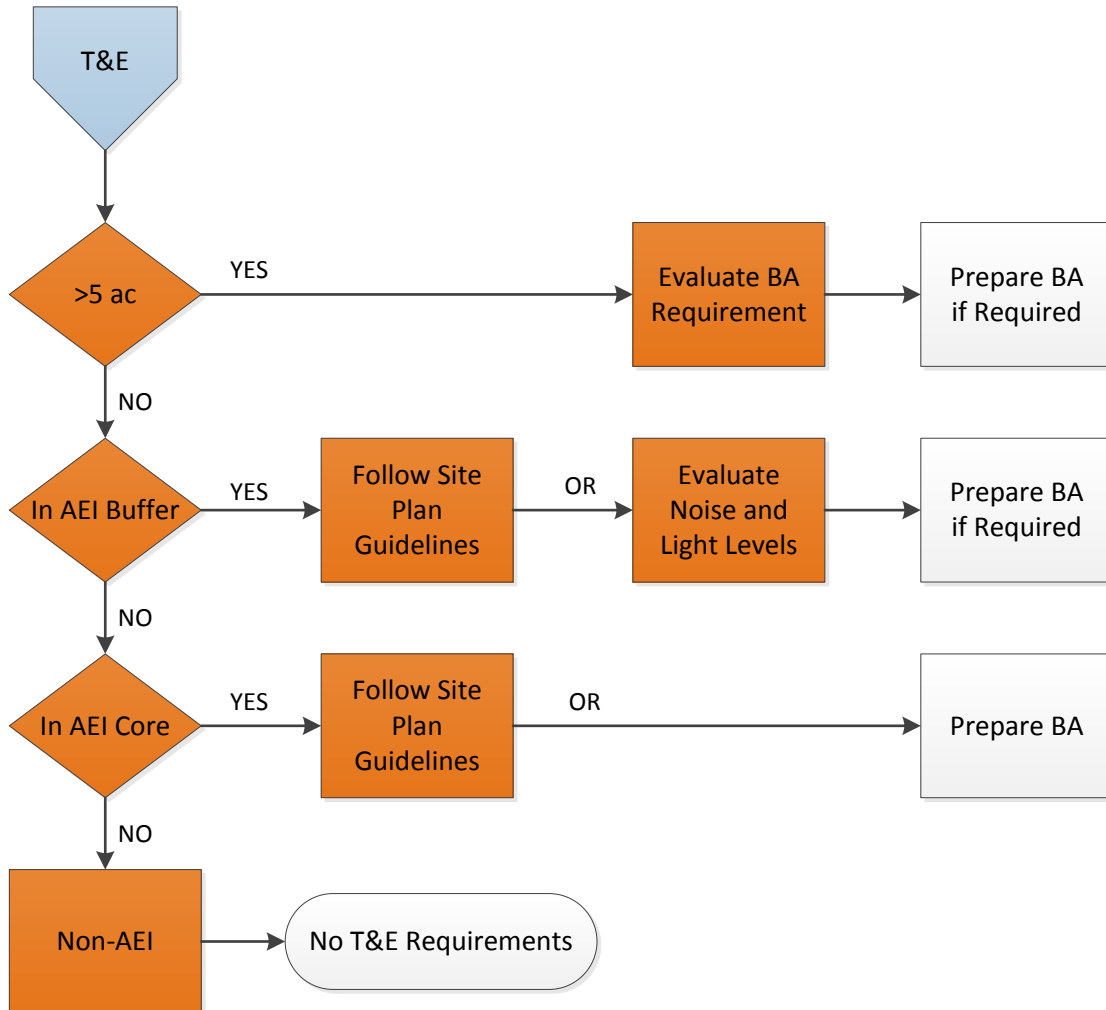


Figure 1. Process flowchart for determining site plan requirements.

4.2 If an Activity Does Not Meet Site Plan Guidelines

Summary: Activities or projects that do not meet all applicable site plan guidelines must be evaluated individually for compliance with the ESA.

If a project reviewer determines that an activity or project cannot meet the guidelines in applicable site plans, LANL biological resources SMEs evaluate that activity individually for compliance with the ESA. Results of the evaluation of potential impacts allow LANL biological resources SMEs to make recommendations to the DOE Field Office Biological Resources Program Manager

regarding the need for USFWS consultation. An evaluation may result in 1) a DOE Field Office determination that there is no possibility of adverse effects and the activity can proceed, 2) a DOE Field Office suggestion for modifications of the action to avoid adverse effects so that it can proceed, or 3) a DOE Field Office decision to prepare a biological assessment (BA) for the activity and submit it to the USFWS for concurrence. Fieldwork and preparation of a BA can take a few months with an additional 2 to 12 months for DOE Field Office review and then final USFWS concurrence.

4.3 Dissemination of Information

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

5.0 CHANGES IN THE HMP SINCE 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.

The black-footed ferret (*Mustela nigripes*) is federally listed as endangered. However, no sightings of black-footed ferrets have been reported in Los Alamos County for more than 50 years. In addition, no large prairie dog towns, which are prime habitat for black-footed ferrets, have been observed on DOE property around LANL. Therefore, there is no site plan for this species.

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

6.0 DATA MANAGEMENT

The data used in the implementation of the HMP is stored in a GIS database at LANL.

II. AREA OF ENVIRONMENTAL INTEREST SITE PLAN FOR THE MEXICAN SPOTTED OWL

1.0 SPECIES DESCRIPTION—MEXICAN SPOTTED OWL

1.1 Status

In 1993, the USFWS determined the Mexican Spotted Owl to be a threatened species under the authority of the ESA, as amended (58 Federal Register [FR] 14248). In 1995, the USFWS released its final recovery plan for the owl (USFWS 1995), which was revised in 2012 (USFWS 2012). The USFWS most recently designated critical habitat for Mexican Spotted Owl in 2004 (69 FR 53181).

1.2 General Biology

The Mexican Spotted Owl is found in northern Arizona, southeastern Utah, and southwestern Colorado south through New Mexico, west Texas, and into Mexico. It is the only subspecies of Spotted Owl recognized in New Mexico (USFWS 1995).

The Mexican Spotted Owl generally inhabits mixed conifer and ponderosa pine (*Pinus ponderosa*; Lawson & C. Lawson) - Gambel oak (*Quercus gambelli*; Nutt.) forests in mountains and canyons. High canopy closure, high stand diversity, multilayered canopy resulting from an uneven-aged stand, large, mature trees, downed logs, snags, and stand decadence as indicated by the presence of mistletoe are characteristic of Mexican Spotted Owl habitat. Some owls have been found in second-growth forests (i.e., younger forests that have been logged); however, these areas were found to contain characteristics typical of old-growth forests. Mexican Spotted Owls in the Jemez Mountains seem to prefer cliff faces in canyons for their nest sites (Johnson and Johnson 1985). The recovery plan for the Mexican Spotted Owl recommends that mixed conifer and pine-oak woodland types on slopes greater than 40 percent be protected for the conservation of this owl.

A mated pair of adult Spotted Owls may use the same home range and general nesting areas throughout their lives. A pair of owls requires approximately 800 ha (1,976 ac) of suitable nesting and foraging habitat to ensure reproductive success. Incubation is carried out by the female. The incubation period is approximately 30 days, and most eggs hatch by the end of May. Most owlets fledge in June, 34 to 36 days after hatching (USFWS 1995). The owlets are “semi-independent” by late August or early September, although juvenile begging calls have been heard as late as September 30. Young are fully independent by early October. The non-breeding season runs from September 1 through February 28. Although seasonal movements vary among owls, most adults remain within their summer home ranges throughout the year.

The diet of Mexican Spotted Owls nesting in canyons consists primarily of woodrats (*Neotoma* spp.) and mice (*Peromyscus* spp.) with lesser amounts of rabbits, birds, reptiles, and arthropods (Willey 2013). The relative abundance of prey types in Mexican Spotted Owl pellets collected at LANL are listed in Table A-1 in the Appendix. Ganey and Balda (1994) found core areas of individuals (i.e., where owls spent 60 percent of their time) averaged 134 ha (331 ac), and core areas for pairs averaged 160 ha (395 ac).

1.3 Threats

The Mexican Spotted Owl was listed as threatened because of destruction and modification of habitat caused by timber harvest and fires, increased predation on owls associated with habitat fragmentation, and a lack of adequate protective regulations.

2.0 IMPACT OF HUMAN ACTIVITIES

2.1 Introduction

The primary threats to Mexican Spotted Owls on DOE property around LANL property are 1) impacts to habitat quality from LANL operations and 2) disturbance of nesting owls. This section provides a review and summary of scientific knowledge of the effects of various types of human activities on the Mexican Spotted Owl and provides an overview of the current levels of activities at LANL.

2.2 Impacts on Habitat Quality

2.2.1 Development

The type of habitat used by Mexican Spotted Owls, late seral stage forests with large trees, are usually not found in large quantities near developed areas or near areas that have had recent agricultural or forest product extraction land uses. Therefore, Mexican Spotted Owls are generally not found near developments. Whether it is the development itself or a lack of suitable habitat that discourages colonization of these areas by Mexican Spotted Owls is unknown.

Areas of LANL vary from remote undeveloped areas to heavily developed and/or industrialized facilities. Most LANL facilities are situated atop mesas, primarily in the northern and western portion of the DOE property. LANL is bounded by developed residential, industrial, and retail areas along its northern boundary (the town of Los Alamos) and by residential and retail development along a portion of its eastern boundary (the town of White Rock). Three major paved roads traverse LANL from northeast to southwest. Sandia, Pajarito, and Los Alamos canyons have paved roads within AEIs, and several AEIs have dirt roads along at least a portion of the canyon bottom. AEIs containing paved or dirt roads in the canyon bottoms have not been occupied at LANL (Hathcock et al. 2010).

2.2.2 Ecological Risk

There is no specific information on the impact of chemicals on the Mexican Spotted Owl, although experience with other raptor species suggests that exposure to polychlorinated biphenyls (PCBs), dichloro-diphenyl-trichloroethane (DDT) and its derivatives, and other organophosphate or organochlorine pesticides would probably be harmful. Exposure to other chemicals could also be harmful (Cain 1988).

LANL completed three ecological risk assessments that included the Mexican Spotted Owl between 1997 and 2009. The ecological risk assessment process involves using computer modeling to assess potential effects to animals from chemicals of potential concern (COPCs) that have been detected in the environment. All of the following ecological risk assessments concluded that, on average, no appreciable impact is expected to Mexican Spotted Owls from COPCs (Gallegos et al. 1997; Gonzales et al. 2004; Gonzales et al. 2009).

2.2.3 Disturbance

2.2.3.1 Pedestrians and Vehicles

Based on work with other raptors, LANL biological resources SMEs assume that Mexican Spotted Owls would likely be disturbed by the approach of either pedestrians or vehicles. At an equal distance, pedestrians are frequently more disturbing to raptors than vehicles (Grubb and King 1991). Brown and Stevens (1997) reported that during surveys in Grand Canyon National Park, 22 times more Bald Eagles were found in canyon reaches with low human recreational use compared to reaches with moderate to high human recreational use. Human activity 100 m (328 ft) from Bald Eagle nests in Alaska caused clear and consistent changes in behavior of breeding eagles (Steidl and Anthony 2000).

Swarthout and Steidl (2001) found that both juvenile and adult roosting Mexican Spotted Owls were unlikely to alter their behavior in the presence of a single hiker at distances greater than 55 m (180 ft). Swarthout and Steidl (2003) concluded that cumulative effects of high levels of short-duration recreational hiking near Mexican Spotted Owl nests may be detrimental.

Many canyon bottoms and mesa tops at LANL have dirt roads traversing them. Most of these roads are gated. However, these roads are accessible to LANL employees and some of them are accessible to the public on foot or by bike. LANL biological resources SMEs have found that AEIs are occupied less often if there is recreational access into a canyon (Hathcock et al. 2010).

2.2.3.2 Aircraft

Ground-based disturbances appear to impact raptor reproductive success more than aerial disturbances (Grubb and King 1991). Grubb and Bowerman (1997) concluded that an exclusion of aircraft within 600 m (1,968 ft) of Bald Eagle nest sites would limit Bald Eagle response frequency to 19 percent.

Delaney et al. (1999) found for Mexican Spotted Owls that chainsaws consistently elicited higher response rates than helicopters at similar distances. Owl flush rates did not differ between nesting and non-nesting seasons. No owls flushed when noise stimuli (helicopter or chainsaws) were at distances greater than 105 m (344 ft). Distance was generally a better predictor of owl response to helicopter overflights than sound level.

LANL is restricted airspace, and planes infrequently fly less than 609 m (2,000 ft) above ground level. The County of Los Alamos operates an airport along the northern edge of LANL. The airport is located on the southern rim of Pueblo Canyon. Most flights approach and depart to the east of the airport, over the Rio Grande.

2.2.3.3 Explosives

There is no specific information on the reaction of Mexican Spotted Owls to explosives detonation currently available. Explosive blasts set off 120 to 140 m (393 to 459 ft) from active Prairie Falcon (*Falco mexicanus*) nests caused perched Prairie Falcons to flush from perches 79 percent of the time, and, in 26 percent of the cases, caused incubating Prairie Falcons to flush from nests. Measured sound levels at aerie entrances during blasts ranged from 129 to 141 decibel (dB) (Holthuijzen et al. 1990). Explosives blasting for dam construction 560 to 1,000 m (1,837 to 3,280 ft) from active Prairie Falcon nests caused a change in behavior 26 percent of the time, and

birds flushed in 17 percent of all cases. No incubating birds flushed (Holthuijzen et al. 1990). Brown et al. (1999) found little activity change in roosting or nesting Bald Eagles and no population-level impacts from weapons detonations at the Aberdeen Proving Ground. Holthuijzen et al. (1990) found that a 167-g (5.89-oz) charge of Kinestik produced noise levels between 138 and 141 dB at 100 m (328 ft), and that a 500-g (17.6-oz) charge of TNT produced noise levels between 144 and 146 dB at 100 m (328 ft). A 20-kg (44-lb) charge of TNT produced noise levels that measured 163 dB at 100 m (328 ft) (Paakkonen 1991).

Measurements of noise levels during explosives testing were conducted at three locations at LANL using quantities of high explosives ranging from 4.5 to 67.5 kg (10 to 148 lb) of TNT during six shots. Noise levels increased during the test from a background level of 31 dB(A)¹ to a range between 64 and 71 dB(A) during shots at a distance of 1.8 km (1.1 mi). At a distance of 4.3 km (2.67 mi), noise levels rose from a background range of 35 to 64 dB(A) to a range of 60 to 63 dB(A) (Vigil 1995). At a distance of 6.7 km (4.16 mi), noise levels rose from a background range of 38 to 51 dB(A) to a range of 60 to 71 dB(A) (Burns 1995). LANL biological resources SMEs estimated that the noise from a shot at the Dual-Axis Radiographic Hydrodynamic Test (DARHT) Facility would be 150 dB(A) at the source and 80 dB(A) at 400 m (1,312 ft) (Keller and Risberg 1995). LANL biological resources SMEs found that Mexican Spotted Owl AEIs located within the explosives testing buffer area were occupied more frequently than AEIs in other locations (Hathcock et al. 2010). This is likely due to the strict access control in explosives areas which limit human activity and development in the canyon bottoms.

2.2.3.4 Other Sources of Noise

Major noise-producing activities at LANL include automobile and truck traffic and noise associated with office buildings, construction activities, a live-fire range, and explosives testing. Also, there is noise associated with aircraft traffic at the Los Alamos County airport. Construction and maintenance activities involved with operations at LANL are fairly common. In addition, implementation of the 2005 Compliance Order on Consent (NMED 2005) issued by the New Mexico Environmental Department (NMED) has resulted in an increased frequency of drilling groundwater monitoring wells in protected habitat at LANL. Also, forest fuels management operations use chainsaws, chippers, and other noise-generating equipment. The 2010 National Pollutant Discharge Elimination System (NPDES) Individual Permit (EPA 2010) issued by the Environmental Protection Agency (EPA) requires sediment control features such as berms and small rock check dams to be installed at various sites with stormwater runoff; these are sometimes installed in protected habitat. LANL biological resources SMEs conducted a study of noise levels in canyons and found that the primary sources of noise exceeding 55 dB(A) were cars and trucks. Readings taken near flowing water were up to 11 dB(A) higher than readings taken elsewhere. The average dB(A) in canyons near paved roads ranged from 41 to 62, with maximum values ranging from 62 to 74. Away from paved roads 1.6 km (1 mi) or more, average dB(A) in canyons ranged from 37 to 50, with all but one average below 45. Maximum dB(A) away from paved roads ranged from 38 to 76 [76 dB(A) was measured during a thunder clap] (Huchton et al. 1997).

¹ Sound can be measured as decibels (dB), C-weighted dB [dB(C)], or A-weighted dB [dB(A)]. The dB(A) measurement best resembles the response of the human ear by filtering out lower and higher frequency sound not normally heard by the human ear.

Noise measurements were conducted by LANL biological resources SMEs at the Los Alamos County airport and in Bayo and Pueblo canyons, including the Los Alamos County Sewage Treatment Facility, in December 1997. Sound levels near the airport runway during the maximum use time (6:30 to 7:30 am) had background values averaging 54 dB(A). Noise during plane arrivals ranged from 47 to 63 dB(A). No measurements were collected during plane take-off. Sound measurements conducted in the bottoms of Pueblo and Bayo canyons ranged from 37 to 40 dB(A) in most areas of the canyon. At the sewage treatment facility parking lot during a working day, the average dB(A) during a three-minute period was 46 (range 45 to 49). At the intersection of the road going into Pueblo Canyon with State Road 502, the average dB(A) during a three-minute period was 60 (range 41 to 70).

LANL biological resources SMEs conducted sound measurements at successive distances from an industrial area near a canyon rim, into the canyon, and to the opposite rim, using a C-weighted decibel scale (Keller and Foxx 1997). Measurements of noise levels using the C-weighted decibel scale are greater than if measured using A-weighted decibels. The average background noise on the mesa was 65.8 dB(C) [with a range of 43–81 dB(C)]. The average background noise in the canyon bottom was 62.3 dB(C) [with a range of 54–78 dB(C)]. The average background noise at the bottom of the north-facing slope was 53.8 dB(C) [with a range of 48–64 dB(C)]. Measurements were taken mid-day.

LANL biological resources SMEs measured sound levels from various pieces of construction equipment used at project sites at LANL over 5-minute intervals at distances of 6 to 31 m (20 to 100 ft) (Knight and Vrooman 1999). Average values ranged from 58.5 dB(A) to 80.9 dB(A). Peak values ranged from 75.7 to 155.4 dB(A). Additional data were collected by other LANL operators on specific pieces of construction equipment and on the Security Computer Complex construction site fence perimeter at Technical Area 3 before and during construction (Knight and Vrooman 1999). The average noise levels before construction began was 56.6 dB(A), and the average during construction was 82.1 dB(A).

LANL biological resources SMEs conducted a series of sound measurements at LANL to investigate background noise levels around AEIs (Vrooman et al. 2000). Background noise levels were significantly higher in daytime than in nighttime. AEIs with greater than 10 percent developed area in their buffers had significantly higher levels of background noise than undeveloped AEIs. Mean background sound levels were 51.3 dB(A) in developed AEIs and 39.6 dB(A) in undeveloped AEIs. The LANL biological resources project review process uses the individual AEI background measurements from Vrooman et al. (2000) to screen project activities for increases more than 6 dB(A) above background.

LANL biological resources SMEs took sound level measurements of heavy equipment use associated with concrete recycling on Sigma Mesa at LANL in 2004 (Hansen 2004). At this location, background noise levels at two different locations were 55.2 and 58.8 dB(A). Operation of a dump truck hauling and dumping concrete increased noise levels above background by a mean of 22.7 dB(A) at 30 m (98 ft) and 2.4 dB(A) at 80 m (262 ft). Additional sound level measurements were taken in the same general area on Sigma Mesa in 2005 as part of a BA for the operation of an asphalt batch plant (Hansen 2005). Measurements were taken on the north rim of Mortandad Canyon (south of the asphalt batch plant at distances of approximately 30 to 122 m (100 to 400 ft), at the bottom of Mortandad Canyon, approximately 183 to 244 m (600 to 800 ft) from the asphalt

batch plant, and on the south rim of Mortandad Canyon approximately 305 m (1,000 ft) from the asphalt batch plant. Background noise levels at the various locations ranged from 41.1 to 48.7 dB(A). The only locations with increases greater than 3 dB(A) during operation of the asphalt batch plant were the locations on the north rim of Mortandad Canyon, within 122 m (400 ft) of the asphalt batch plant. Noise from the operation of the asphalt batch plant was not detected in the bottom of Mortandad Canyon or on the south rim.

LANL biological resources SMEs took sound level measurements around the LANL Biosafety Level 3 (BSL-3) Laboratory with the heating, ventilation, and air conditioning (HVAC) system on and with it off (Hansen 2009). The area to the north of the BSL-3 is developed, the area to the south is not. Background noise levels north of the facility ranged from 53.6 to 57.6 dB(A). Background noise levels south of the facility ranged from 41.6 to 49.7 dB(A). Noise from the HVAC system was detected at 25 m (82 ft) from the facility on both sides, but was not detected at 81 m (266 ft) on the north side, or at 107 m (351 ft) on the south side.

Overall, these studies appear to show that areas adjacent to or within developed areas or paved roads are likely to have daytime average background noise levels between 45 and 63 dB(A). Less disturbed areas are likely to have average background noise levels between 37 and 50 dB(A).

2.2.3.5 Artificially Produced Light

There is no information available on the effects of artificially produced light on Mexican Spotted Owls. Under the Los Alamos County Code, commercial site development plans are reviewed to ensure that lighting serves the intended use of the site while minimizing adverse impacts to adjacent residential property (Section 16-276). Section 16-276 of the County Code includes light source measurement limitations by zoning district. The code allows off-site light to be 0.5 foot candles (fc) in residential areas. By comparison, full moonlight measures 0.1 fc, and a crescent moon was measured at 0.01 fc. Table A-2 in the Appendix presents preliminary light measurements in fc.

Preliminary surveys were conducted for light levels within Los Alamos Canyon at the Omega Reactor (Keller and Foxx 1997). The Omega Reactor was brightly lit for purposes of security; therefore, total light intensity was greater than the average street lighting. Measurements were conducted at a light pole with an open parking lot at the reactor as the source. Trees did not obscure the area. Using the relationship of light intensity reducing as a square of the distance, calculations using the field data indicated that at 30 m (98 ft) from the source the light levels would be equivalent or nearly equivalent to full moonlight.

3.0 AEI GENERAL DESCRIPTION FOR MEXICAN SPOTTED OWL

An AEI consists of two areas—a core and a buffer. The core of the habitat is defined as suitable canyon habitat from rim to rim and 100 m (328 ft) out from the top of the canyon rim. The buffer area is 400 m (1,312 ft) wide extending outward from the edge of the core area. Although adult Mexican Spotted Owls may be found within their home range anytime throughout the year, the primary threat from disturbance to the owls is during the breeding season when owl pairs are tied to their nest sites. Therefore, management of disturbance in Mexican Spotted Owl AEIs is concentrated on the breeding season.

3.1 Method for Identifying a Mexican Spotted Owl AEI

The original location of each Mexican Spotted Owl AEI was identified using a habitat model developed by Johnson (1998) that classified nesting and roosting habitat for Mexican Spotted Owls using topographic characteristics and vegetative diversity. LANL biological resources SMEs compared the results from the Johnson (1998) model to a different model identifying slopes >40 percent in mixed conifer and ponderosa pine cover types at LANL. Areas identified from the Johnson (1998) model application to LANL that were over five contiguous 30 × 30 m (97 × 98 ft) pixels in size, were above 1,980 m (6,496 ft) in elevation, and that had mixed conifer or ponderosa pine forest cover, were considered suitable Mexican Spotted Owl habitat. Where suitable habitat was identified, AEI core area boundaries were established to include the canyons and 100 m (328 ft) outward from the canyon rims.

A new Mexican Spotted Owl habitat model was developed and refined for application on LANL following the Cerro Grande wildfire (Hathcock and Haarmann 2008). This model incorporated finer-scale vegetation characteristics into the Mexican Spotted Owl habitat quality assessment. This model was used to redelineate the boundaries of the Mexican Spotted Owl AEIs at LANL in 2005 following wildfire, drought, and a regional bark beetle outbreak (USFWS consultation number 22420-2006-I-0010).

The new core boundaries were delineated with an area approximately 0.4 km (0.25 mi) from the edge of the nearest suitable habitat, up and down canyon. Core boundaries were established along readily recognizable geologic features or anthropogenic features in the terrain wherever possible to facilitate the ease of identification of core boundaries when in the field.

3.2 Location and Number of Mexican Spotted Owl AEIs

There are currently five Mexican Spotted Owl AEIs on LANL, each encompassing one or more canyons. In general, the AEI cores are centered in canyons on the western side of LANL. The canyons with AEIs are Cañon de Valle, Water, Pajarito, Los Alamos, Sandia, Mortandad, and Three-Mile. AEI boundaries are maintained in the LANL biological resources program GIS database.

4.0 AEI MANAGEMENT

4.1 Overview

This AEI management section provides guidelines for LANL operations to reduce or eliminate the threats to Mexican Spotted Owls from 1) habitat alterations that reduce habitat quality and 2) disturbance of breeding or potentially breeding owls. Habitat alterations are considered for all AEIs and for both core and buffer areas. Disturbance activities to owls are considered only for occupied AEIs and only for impacts on core areas. Developed areas (see Part I, Section 3.1) that have ongoing baseline levels of activities and are not suitable habitat for Mexican Spotted Owls have different restrictions than undeveloped core or buffer areas. Therefore, the location of the disturbance activity within the AEI, the occupancy status of the AEI, and the type of activity all affect whether or not the activity is allowable. AEIs for different species may overlap, and an activity must meet the guidelines of all applicable site plans to be allowable.

4.2 Definition and Role of Occupancy in AEI Management

Summary: The occupancy status of an AEI affects what disturbance activities are allowable in different areas (core, buffer, developed) of the AEI. All Mexican Spotted Owl AEIs are considered occupied during March 1 through August 31 or until surveys show the AEI to be unoccupied. See the Activity Table (Table 1, Section 4.5.2) for restrictions on occupied undeveloped core and buffer areas, and Part I, Section 3.1 for restrictions on developed areas.

Occupancy simply refers to whether or not an AEI is occupied during a species' period of sensitivity. For Mexican Spotted Owls, LANL is primarily concerned with protecting the owls from disturbance during the breeding season. Because individuals may colonize suitable habitat, all Mexican Spotted Owl AEIs are treated as though they are occupied from March 1 through August 31 or until surveys show an AEI to be unoccupied. Mexican Spotted Owl surveys are conducted from late March through June. In general, surveys in areas with ongoing or proposed projects are completed by May 15. If a nest is located during surveys, then the AEI can be treated as unoccupied except for the area within a 400 m (1,312 ft) radius of the nest site. Because owls are not as sensitive to disturbance during the non-breeding season, Mexican Spotted Owl AEIs are treated as unoccupied from September 1 to February 28.

The occupancy status of an AEI affects what activities are allowable in the AEI. Although activities causing habitat alterations are restricted in all AEIs, disturbance activities are restricted only in occupied AEIs. The Activity Table (Table 1, Section 4.5.2) provides dates and levels of allowable disturbance activities within occupied Mexican Spotted Owl AEIs under the guidelines of this site plan. Contact a LANL biological resources SME to find out the current occupancy status of an AEI (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

4.3 Introduction to AEI Management Guidelines

Summary: The habitat alterations section and the activities section give the guidelines for habitat alteration and disturbance activities, respectively, for Mexican Spotted Owl AEIs. The flow chart (see Figure 1) provides a quick reference to determine what, if any, guidelines need to be consulted for a specific activity. Protective measures give management practices that should be applied when working or considering work in AEIs. LANL biological resources SMEs are available to answer questions and provide advice (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

Sections 4.4 and 4.5 provide the guidelines for habitat alterations and allowable activities in AEI core and buffer areas. Section 4.4 describes what and where habitat alterations are allowed under the guidelines of this site plan. Section 4.5 describes what, when, and where disturbance activities are allowed in occupied AEIs under the guidelines of this site plan. If an activity does not meet the restrictions given in the guidelines, the activity must be individually reviewed for ESA compliance. This site plan only provides guidelines for Mexican Spotted Owl AEIs. If an activity is desired in an area with overlapping AEIs, all applicable site plans must be consulted. AEI maps show the location of all AEIs in an area. Section 4.6 describes management practices that should be applied when working or considering work in an AEI. LANL biological resources SMEs are available to answer questions and provide advice (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

4.4 Definition of and Restrictions on Habitat Alterations

4.4.1 Definition of Habitat Alterations

Habitat alteration includes any action that alters the soil structure, vegetative components necessary to the species, prey quality and quantity, water quality, hydrology, or noise or light levels in undeveloped areas of an AEI. Long-term means the alteration lasts for more than one year. For physical disturbances, in general, any activity that can be accomplished by one person with a hand tool is generally not considered habitat alteration; any activity that requires mechanized equipment on a landscape is habitat alteration. An actual activity may take place outside of the AEI and will be considered habitat alteration if consequences of the activity have effects inside the AEI core.

The habitat components most important to Mexican Spotted Owls include vegetative structure, food quality and quantity, and disturbance levels, including noise and light. The forest structure within a canyon designated as a Mexican Spotted Owl AEI is important because it provides roost sites and a suitable habitat for nesting and foraging. Trees along the canyon rim are used for foraging and territorial calling, and they shelter the canyon interior from light and noise disturbances.

A long-term change in light or noise levels within the undeveloped core of an AEI is considered to be a habitat alteration if it increases average noise levels by ≥ 6 dB(A) during any portion of the 24-hour day, or it increases average light levels by ≥ 0.05 fc at night. Changes in noise and light levels are measured at the core area boundary if the source is outside the core area, or at 10 m (33 ft) from the source if the source is inside the undeveloped core area. Impacts of changes in developed areas on undeveloped cores are measured at the developed area boundary if it is within the core, or at the core area boundary if the developed area is outside of the core.

4.4.2 Fuels Management Practices to Reduce Wildfire Risk

The recovery plan for the Mexican Spotted Owl lists stand-replacing wildfires as a primary threat to their habitat and encourages land managers to reduce fuel levels and abate fire risks in ways compatible with owl presence on the landscape (USFWS 1995). Within undeveloped core areas, on slopes >40 percent, in the bottoms of steep canyons, and within 30 m (100 ft) of a canyon rim, thinning of trees <22 cm (9 in) diameter at breast height, treatment of fuels, and prescribed and natural prescribed fires are allowed. Exceptions allowing trees >22 cm (9 in) to be thinned within 30 m (100 ft) of buildings are granted to protect facilities. Large logs (>30 cm [11.8 in] midpoint diameter) and snags should be retained. Thinning within core areas not meeting the characteristics listed above, and in buffer areas, may include trees of any size to achieve 8 m (25 ft) spacing between tree crowns. However, clear cutting is not allowed in undeveloped core areas.

For health and safety reasons, any trees within 30 m (100 ft) of buildings, but outside a developed area, may be thinned to achieve 8 m (25 ft) spacing between crowns. Habitat alterations including thinning are not restricted in developed areas. However, LANL biological resources SMEs encourage the retention of trees and snags along canyon rims if the rim is in a developed area. Because of the extreme fire danger associated with firing sites and the potential impact of a fire on Mexican Spotted Owl habitat, firing sites and burn areas are treated separately for the purposes of fuels management. Trees within 380 m (1,246 ft) of firing sites and burn areas in both core and

buffer areas may be thinned to a 15 m (49 ft) spacing between trees everywhere except on slopes >40 percent or in the bottoms of steep canyons. Any tree over 22 cm (9 in) diameter at breast height within 380 m (1,246 ft) of a firing site may be delimbed to a height of 2 m (6 ft) to help prevent crown fires.

In historically occupied core areas, fuels treatment may not exceed 10 percent of the undeveloped core area and is not allowed within 400 m (1,312 ft) of nesting areas. In occupied core areas, forest management activities must take place during the nonbreeding season (September 1 to February 28) (USFWS 1995). Fuels management activities that are allowable in core areas have to be reported to LANL biological resources SMEs for tracking.

4.4.3 Utility Corridors

Habitat alterations such as cutting down trees that threaten power lines are allowed within 8 m (26 ft) of either side of an existing utility line in all areas of an AEI (Trujillo and Racine 1995). New utility lines and utility lines requiring clearance of a right-of-way greater than 16 m (52 ft) total must be individually reviewed for ESA compliance. Disturbance activities must follow the guidelines given in the Activities Table (Table 1, Section 4.5.2) for occupied AEIs.

4.4.4 Restrictions on Habitat Alterations

Summary: Habitat alterations other than fuels management practices and utility corridor maintenance are not allowed in undeveloped core areas. Habitat alterations in buffer areas are restricted to 2 ha (5 ac) per project, with a maximum cap on development in the buffer for each AEI. Habitat alterations other than fuels management and utility corridor maintenance must be reported to LANL biological resources SMEs for tracking (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

Habitat alterations other than the fuels management practices and utility corridor maintenance described above are not allowed in undeveloped core areas under the guidelines of this site plan. If a project or activity is planned that would alter habitat in an undeveloped core area, it must be individually evaluated for ESA compliance. Habitat alterations in undeveloped buffer areas other than the fuels management activities and utility corridor maintenance described above are restricted to 2 ha (5 ac) in area per project and are subject to other restrictions including light and noise effects in the core (see Section 2.2.3). Projects in the buffer over 2 ha (5 ac) in size will require individual ESA compliance review.

Habitat alterations in a buffer area other than the fuels management and utility corridor maintenance described above must be reported to LANL's biological resources SMEs for tracking (<http://int.lanl.gov/environment/bio/controls/index.shtml>). There is a cumulative maximum area that can be developed in each AEI's buffer. Once that cumulative area is reached, all habitat alterations in a buffer will require individual ESA reviews for compliance.

4.5 Definition of and Restrictions on Disturbance Activities

4.5.1 Definitions of Disturbance Activities

LANL biological resources SMEs considered six categories of activities that might cause disturbance in an AEI. Most of the categories were first identified in the document "Peregrine

Falcon Habitat Management in the National Forests of New Mexico,” prepared for the United States Forest Service (Johnson 1994). LANL biological resources SMEs added explosives detonation, other light production, and other noise production to provide the most comprehensive list of activities possible, thereby reducing the need for individual review of activities for ESA compliance. The categories of activities are people, vehicles, aircraft, other light production, other noise production, and explosives detonation. LANL biological resources SMEs have defined low, medium, and high levels of impact for these activities except for explosives detonation. Activity levels for explosives detonation have been designed to follow the guidelines agreed upon by LANL, DOE, and USFWS in the DARHT BA (Keller and Risberg 1995). Restrictions on explosives detonation are described in the definition of the activity, but are not included in the Activity Table (Table 1, Section 4.5.2). These six categories of activities are restricted only in AEIs that are classified as occupied.

People—includes any entry of people into an AEI on foot.

- Low impact is the presence of three or fewer people per project and duration of one day or less during a breeding season.
- Medium impact is the exceedance of either the number of people or the duration criteria.
- High impact is the exceedance of both the number of people and the duration criteria.

Vehicles—includes the entry of any two-axle highway vehicle, all-terrain vehicle, or motorized machinery into an AEI by any route other than a paved road or an improved gravel road.

- Low impact is the presence of two or fewer vehicles per project and duration of one day or less during a breeding season.
- Medium impact is the exceedance of either the number of vehicles or the duration criteria.
- High impact is the exceedance of both the number of vehicles and the duration criteria.

Aircraft—includes the operation of any aircraft below an elevation of 600 m (2,000 ft) above the highest ground level in the local vicinity.

- Low impact is the presence of one single-engine airplane and the duration of one day or less during a breeding season.
- Medium impact is the exceedance of either the number of aircraft or the duration criteria.
- High impact is the exceedance of both the number of aircraft and the duration criteria.

Any use of helicopters, jet airplanes, and propeller airplanes with two or more engines is classified as medium impact or above, depending on duration.

Other Light Production—includes any activity not previously listed that causes additional light to occur in an AEI core area. For example, plans for construction of a new building at the edge of a developed area may call for lighting at night to facilitate nighttime work that impacts an undeveloped core area.

- Low impact is the increase of light intensity by ≤ 0.05 fc and a duration of one night or less per project per breeding season.
- Medium impact is the exceedance of either the intensity or duration criteria.
- High impact is the exceedance of both the intensity and duration criteria.

Measurements for increases in light are taken at the AEI core area boundary closest to the light source if the source is outside the core and at 10 m (33 ft) from the source if the source is inside the core. Light measurements for developed areas are taken at the edge of the developed area if the developed area is within an AEI core or at the closest core boundary if the developed area is outside of an AEI core.

Other Noise Production—includes any activity not previously listed except for explosives detonation that causes additional noise to occur in an AEI. For example, operation of machinery creates noise.

- Low impact is increasing noise levels in an AEI core by 6 dB(A) or less for one day or less per project per breeding season.
- Medium impact is the exceedance of either the level or the duration criteria.
- High impact is the exceedance of both the level and the duration criteria.

Measurements for increases in noise are taken at the AEI core boundary closest to the noise source if the source is outside the core and at 10 m (33 ft) from the source if the source is inside the core. Noise measurements for developed areas are taken at the edge of the developed area if the developed area is within an AEI core or at the closest core boundary if the developed area is outside of an AEI core.

Explosives Detonation—includes the use of high explosives for any purpose. LANL biological resources SMEs did not define low, medium, and high levels of this activity because of the difficulty of determining levels for a shot before actually doing the shot. For the purpose of explosives detonation near Mexican Spotted Owl AEIs, occupied habitat is defined as the area within 400 m (1,312 ft) of the current year's nest/roost sites or the previous year's nest site if a current site has not been identified. No explosives detonation will take place within 400 m (1,312 ft) of nest/roost sites in occupied habitat between March 1 and August 31. Explosives detonation at night at sites within 400 to 800 m (1,312 to 2,624 ft) of a nest site in occupied habitat is restricted to once a month from March 1 and August 31. There are no restrictions on daytime explosives testing between 400 and 800 m (1,312 to 2,624 ft). There are no restrictions between September 1 and February 28 or in unoccupied habitat. Explosives detonation adjacent to AEIs that have not previously been recorded by LANL as occupied will have no restrictions unless surveys detect Mexican Spotted Owls. Explosives tests not allowed under the guidelines of this site plan must be individually reviewed for ESA compliance.

4.5.2 Activity Table

The dates shown in the Activity Table (Table 1) are the dates between which the activity in the row is restricted under the guidelines of this site plan. All AEIs are considered occupied from March 1 to August 31 or until surveys show an AEI to be unoccupied. If owls are detected, AEIs

are considered occupied until August 31 within 400 m (1,312 ft) of the nest site. Consult with LANL biological resources SMEs to find out occupancy status of AEIs and what locations are within 400 m (1,312 ft) of nest sites (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

Table 1. Restrictions on Activities in Undeveloped Occupied Mexican Spotted Owl AEIs

	Core	Buffer
<i>People</i>		
Low	No Restrictions*	No Restrictions
Medium	March 1 to August 31	No Restrictions
High	March 1 to August 31	No Restrictions
<i>Vehicles</i>		
Low	No Restrictions	No Restrictions
Medium	March 1 to August 31	No Restrictions
High	March 1 to August 31	No Restrictions
<i>Aircraft</i>		
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
<i>Other Light Production</i>		
Low	March 1 to August 31	No Restrictions**
Medium	March 1 to August 31	No Restrictions**
High	March 1 to August 31	No Restrictions**
<i>Other Noise Production</i>		
Low	March 1 to August 31	No Restrictions**
Medium	March 1 to August 31	No Restrictions**
High	March 1 to August 31	No Restrictions**
<i>Explosives Detonation (see text in Section 4.5.1)</i>		

*Entry is restricted in core areas that are occupied within 400 m (1,312 ft) of the nest site from March 1 to August 31. If the current nest has not been located, entry is restricted within 400 m (1,312 ft) of the previous year's nest site.

**Noise or light production in the buffer is restricted if the activity would violate core area restrictions on noise or light.

4.6 Protective Measures

Summary: This section provides a list of management practices to apply in Mexican Spotted Owl AEIs.

- Timing of projects must take into account that projects in core areas or projects that violate restrictions for occupied buffer areas must stop on February 28 each year until occupancy status of the AEI is determined.
- Every reasonable effort should be made to reduce the noise from explosives testing within 800 m (2,624 ft) of occupied habitat. Methods to reduce noise could include contained shots, noise shields in the direction of AEI cores, etc. For night shots, every reasonable effort should be made to limit the amount of light directed into AEI core areas.

- Put signs on dirt roads and trails leading into AEIs labeling them as restricted access areas and providing a number to contact for access restrictions.
- Keep disturbance and noise to a minimum.
- Avoid unnecessary disturbance to vegetation (e.g., excessive parking areas or equipment storage areas, off-road travel, materials storage areas, crossing of streams or washes).
- Avoid removal of vegetation along drainage systems and stream channels.
- Avoid all vegetation removals not absolutely necessary.
- Appropriate erosion and runoff controls should be employed to reduce soil loss. The controls must be put in place and periodically checked throughout the life of projects.
- All exposed soils must be revegetated as soon as feasible after construction to minimize erosion.
- In the Los Alamos Canyon AEI, development should be focused away from undeveloped areas on the western end of the AEI.

5.0 LEVELS OF DEVELOPMENT IN AEI CORE AND BUFFERS

5.1 Allowable Habitat Alteration in the Buffer Areas

The following quantifications of development and guidance for allowable habitat alteration in buffer areas were published and consulted on in the 1999 version of the HMP. Most AEIs changed in dimensions during the 2005 redelineation of the habitats, and many have experienced additional development. Development in buffer habitat was not addressed during the 2005 consultation. Many projects were reviewed and received USFWS concurrence between 1999 and 2014.

LANL biological resources SMEs have provided the current development status for each of the AEIs at the end of each paragraph. The percent developed numbers were derived with the original size of the AEIs.

Cañon de Valle—In 1999, 16.3 ha (40.3 ac, 2.9 percent) of the core was developed and 52.2 ha (129 ac, 6.8 percent) of the DOE-controlled buffer was developed. For this AEI, it was recommended that only an additional 25.30 ha (62.5 ac) of the AEI buffer be developed. The 1999 HMP stated that once this cap is reached or a large-scale project is proposed, additional consultation with USFWS would be required. By 2011, 28 ha (69.2 ac) of the core and 84 ha (207.5 ac) of the buffer had been developed.

Pajarito—In 1999, there were 6.7 ha (16.5 ac, 5.5 percent) of the core developed and 75.1 ha (186.5 ac, 16.7 percent) developed in the buffer. LANL biological resources SMEs recommended only an additional 35 ha (86.4 ac) of the buffer be developed before additional USFWS consultations take place. The 1999 HMP stated that once the cap is reached or a single large-scale project is proposed, additional consultation would be required. By 2011, 27 ha (66.7 ac) of the core and 89 ha (220 ac) of the buffer had been developed.

Los Alamos—In 1999, there were 77.16 ha (190 ac) of the core developed and 167.2 ha (413.1 ac) developed in the buffer. For this AEI, LANL biological resources SMEs recommended only an

additional 28.6 ha (70.6 ac, 5.9 percent) of the DOE-owned buffer be developed before additional USFWS consultations take place.

Because this AEI is so heavily developed, additional development was restricted to a few selected areas within the buffer. Development outside of these areas requires individual review for ESA compliance. A large percentage of this AEI was removed in the 2005 and 2013 BAs. By 2011, 94 ha (232.2 ac) of the core and 181 ha (447.3 ac) of the buffer had been developed.

Sandia-Mortandad—In 1999, 98.4 ha (243.2 ac) of this AEI on DOE lands were developed, including 29 ha (71.7 ac, 10.7 percent) of the core and 75.1 ha (185.6 ac, 16.7 percent) of the buffer. For this AEI, LANL biological resources SMEs recommended only an additional 38.1 ha (94.1 ac) of the buffer be developed before additional USFWS consultations take place. Once this cap is reached or a single large-scale project is proposed, additional consultation will be required. By 2011, 45 ha (111.2 ac) of the core and 83 ha (205.1 ac) of the buffer had been developed.

Three Mile—In 1999, 25.3 ha (62.5 ac) of this AEI on DOE lands were developed, including 3.8 ha (9.4 ac, 2.8 percent) of the core and 21.5 ha (51.1 ac, 7.3 percent) of the buffer. For this AEI, LANL biological resources SMEs recommended only 64.3 ha (158.8 ac) additional area of buffer be developed before additional USFWS consultations take place. Once this cap is reached or a single large-scale project is proposed, additional consultation will be required. By 2011, 12 ha (29.6 ac) of the core and 37 ha (91.4 ac) of the buffer had been developed.

III. AREA OF ENVIRONMENTAL INTEREST SITE PLAN FOR THE SOUTHWESTERN WILLOW FLYCATCHER

1.0 SPECIES DESCRIPTION—SOUTHWESTERN WILLOW FLYCATCHER

1.1 Status

In 1995, the USFWS designated the Southwestern Willow Flycatcher as a federally endangered species (60 FR 10693). The USFWS most recently designated critical habitat for the Southwestern Willow Flycatcher in 2005 (70 FR 60885). The most recent recovery plan was published for Southwestern Willow Flycatcher in 2002 (USFWS 2002).

1.2 General Biology

The Southwestern Willow Flycatcher is one of four subspecies of the Willow Flycatcher. The historic range of the Southwestern Willow Flycatcher included Arizona, California, Colorado, New Mexico, Texas, Utah, and Mexico. Currently, this flycatcher breeds in riparian habitats from southern California to Arizona and New Mexico, plus southern Colorado, Utah, Nevada, and far western Texas. In winter it is found in southern Mexico, Central America, and northern South America (USFWS 2002).

Southwestern Willow Flycatchers are present in New Mexico from early May through mid-September and breed from late May through late July (Finch and Kelly 1999; USFWS 2002; Yong and Finch 1997). The flycatcher's nesting cycle is approximately 28 days. Three or four eggs are laid at one-day intervals, and incubation begins when the clutch is complete. The female incubates eggs for approximately 12 days, and the young fledge about 13 days after hatching.

Southwestern Willow Flycatchers typically raise one brood per year (USFWS 2002). Because arrival dates vary, northbound migrant Willow Flycatchers (of all subspecies) pass through areas where Southwestern Willow Flycatchers have already begun nesting. Similarly, southbound migrants (of all subspecies) in late July and August may occur where Southwestern Willow Flycatchers are still breeding. Therefore, it is only during a short period of the breeding season (approximately June 15 through July 20) that one can assume that a Willow Flycatcher seen within Southwestern Willow Flycatcher range is probably of that subspecies (USFWS 2002).

The Southwestern Willow Flycatcher only nests along rivers, streams, and other wetlands. It is found in close association with dense stands of willows (*Salix* spp.), arrowweed (*Pluchea* spp.), buttonbush (*Cephalanthus* spp.), tamarisk (*Tamarix* spp.), Russian olive (*Eleagnus angustifolia* L.), and other riparian vegetation, often with a scattered overstory of cottonwood (*Populus* spp.) (USFWS 2002). The size of vegetation patches or habitat mosaics used by Southwestern Willow Flycatchers varies considerably and ranges from as small as 0.8 ha (1.9 ac) to several hundred hectares (Hatten and Paradzick 2003). The Southwestern Willow Flycatcher nests in thickets of trees and shrubs approximately 2 to 15 m (6 to 49 ft) tall, with a high percentage of canopy cover and dense foliage from 0 to 4 m (0 to 13 ft) above ground. Regardless of the plant species composition or height, occupied sites always have dense vegetation in the patch interior (Allison et al. 2003; USFWS 2002).

The Southwestern Willow Flycatcher is an insectivore. It forages within and occasionally above dense riparian vegetation, taking insects on the wing and gleaning them from foliage. The flycatcher's prey includes flies, bees, wasps, ants, beetles, moths, butterflies, grasshoppers, crickets, dragonflies, damselflies, and spiders (Durst et al. 2008; Wiesenborn and Heydon 2007).

1.3 Threats

The current population of Southwestern Willow Flycatchers in the United States is estimated at 1,214 territories (Durst et al. 2006). The distribution of breeding groups is highly fragmented, with groups often separated by considerable distances. This subspecies has suffered declines attributed to extensive loss of its cottonwood-willow habitat and to poor productivity resulting from brood parasitism by Brown-headed Cowbirds (*Molothrus ater*) (USFWS 2002).

2.0 IMPACT OF HUMAN ACTIVITIES

2.1 Introduction

The primary threats to the Southwestern Willow Flycatcher on LANL property are 1) impacts on habitat quality from LANL operations and 2) disturbance of nesting flycatchers. This section includes a review and summary of the known effects of various types of human activities to the Southwestern Willow Flycatcher and an overview of the current levels of activities at LANL within species habitat.

2.2 Impacts on Habitat Quality

2.2.1 Development

Throughout the Southwest, riparian habitats are rare and tend to be small and separated by vast expanses of arid lands. The Southwestern Willow Flycatcher has experienced extensive loss and

modification of its habitat resulting from urban and agricultural development, water diversion and impoundment, channelization of waterways, livestock grazing, off-road vehicle and other recreational uses, and hydrological changes resulting from these and other land uses (USFWS 2002). River and stream impoundments, groundwater pumping, and overuse of riparian areas have altered as much as 90 percent of the Southwestern Willow Flycatcher's habitat (USFWS 2002). Loss of cottonwood-willow riparian forests has had widespread impact on the distribution and abundance of bird species associated with that forest. Development itself may be tolerated if the habitat is left intact.

Because watercourses at LANL tend to be intermittent to ephemeral, riparian habitat is uncommon. There has been extensive degradation of the riparian zone along the Rio Grande caused by feral cattle grazing and flood control operations of Cochiti Lake. There are other riparian/wetland areas on LANL associated with canyon bottoms, the most significant one being Pajarito wetlands in the lower end of Pajarito Canyon. A major paved road traverses the wetlands area in Pajarito Canyon.

2.2.2 Ecological Risk

There is no specific information on the impact of chemicals on Southwestern Willow Flycatcher.

2.2.2.1 Ecorisk Assessment

LANL completed two ecological risk assessments that included the Southwestern Willow Flycatcher between 1997 and 2009. The ecological risk assessment process involves using computer modeling to assess potential effects to animals from COPCs that have been detected in the environment. The ecological risk assessments concluded that, in general, there is a small potential for effects to Southwestern Willow Flycatcher from COPCs (Gonzales et al. 1998; Gonzales et al. 2009).

An ecotoxicological risk assessment for the Southwestern Willow Flycatcher, centered on the Pajarito wetlands, found that between 7 and 16 percent of 100 hypothetical nest sites examined had hazard indices >1.0 and <10.0 , depending on the foraging scenario (Gonzales et al. 1998). This indicates a small potential for impacts from chemicals. The primary chemicals driving the risk scenario were pentachlorophenol, aluminum, radium-226, calcium, and thorium-228. Aluminum, radium, and thorium are naturally occurring substances in northern New Mexico.

2.2.3 Disturbance

2.2.3.1 Pedestrians and Vehicles

There is no specific information on the reactions of Southwestern Willow Flycatchers to pedestrians and vehicles available. The recovery plan for the Southwestern Willow Flycatcher recommends providing protected areas, reducing unpredictable activities providing visual barriers, and reducing noise disturbance (USFWS 2002).

2.2.3.2 Aircraft

There is no specific information on the reaction of Southwestern Willow Flycatchers to aircraft available.

LANL lies within restricted airspace and planes infrequently fly less than 609 m (2,000 ft) above ground level. The County of Los Alamos operates an airport along the northern edge of LANL. The airport is located on the southern rim of Pueblo Canyon. Most flights approach and depart to the east of the airport, over the Rio Grande.

2.2.3.3 Explosives

There is no specific information on the reaction of Southwestern Willow Flycatchers to explosives detonation available. The Southwestern Willow Flycatcher AEI is not located close to any explosives testing sites at LANL.

2.2.3.4 Other Sources of Noise

LANL biological resources SMEs do not have good information on the effects of noise, including machinery operation, on Southwestern Willow Flycatchers. However, Southwestern Willow Flycatchers are probably not as sensitive to disturbance as some other threatened or endangered species (USFWS 2002). For a description of noise levels at LANL, see Part I, Section 2.2.3.

2.2.3.5 Artificially Produced Light

There is no information on the effects of artificially produced light on Southwestern Willow Flycatchers available. Under the Los Alamos County Code, commercial site development plans are reviewed to ensure that lighting serves the intended use of the site while minimizing adverse impacts to adjacent residential property (Section 16-276). Section 16-276 of the County Code includes light source measurement limitations by zoning district. The code allows off-site light to be 0.5 fc in residential areas. By comparison, full moonlight measures 0.1 fc, and a crescent moon was measured at 0.01 fc.

3.0 AEI GENERAL DESCRIPTION FOR SOUTHWESTERN WILLOW FLYCATCHER

The AEI consists of two types of areas—core and buffer. Core areas represent wetland areas with suitable vegetation for nesting, primarily dense willows. The buffer area is the area within 100 m (328 ft) of core areas. The Southwestern Willow Flycatcher AEI on LANL consists of two separate core areas. For purposes of this site plan, both core areas and associated buffers are considered one AEI unit.

3.1 Method for Identifying the Southwestern Willow Flycatcher AEI

The core areas were defined by the presence of riparian habitat and suitable wetland vegetation. These areas were identified in 1994 during a survey of wetlands at LANL and mapped using a global positioning system receiver. Wetlands without stands of dense willows at least 2 m (7 ft) tall and 30 m (98 ft) wide were not included in the AEI. The buffer area is the area within 100 m (328 ft) of the core areas.

3.2 Location of the Southwestern Willow Flycatcher AEI

LANL has one AEI for Southwestern Willow Flycatcher. It is composed of two core areas with associated buffers. The AEI core areas are located in the bottom of Pajarito Canyon, on the eastern side of LANL adjacent to Pajarito Road and State Road 4. The boundaries of the Southwestern

Willow Flycatcher AEI are maintained in the biological resources program GIS database at LANL.

4.0 AEI MANAGEMENT

4.1 Overview

This AEI management section provides guidelines for LANL operations to reduce or eliminate the threats to the Southwestern Willow Flycatcher from 1) habitat alterations that reduce habitat quality and 2) disturbance of breeding or potentially breeding flycatchers. Habitat alterations are considered for all AEIs and for both core and buffer areas. Disturbance activities to flycatchers are considered only for occupied AEIs and only for impacts on core areas. Developed areas (see Part I, Section 2.3) with ongoing baseline levels of activities and are not suitable habitat for Southwestern Willow Flycatchers have different restrictions than undeveloped core or buffer areas. Therefore, the location of the disturbance activity within the AEI, the occupancy status of the AEI, and the type of activity all affect whether or not the activity is allowable. AEIs for different species may overlap, and an activity must meet the guidelines of all applicable site plans to be allowable. Protective measures are described as management practices that should be followed when working in AEIs.

4.2 Definition and Role of Occupancy in AEI Management

Summary: The occupancy status of an AEI affects what disturbance activities are allowable in different areas (core, buffer, developed) of the AEI. The Southwestern Willow Flycatcher AEI is considered occupied during May 15 through September 15 or until the surveys show the AEI to be unoccupied. See the Activity Table (Table 2, Section 4.5.2) for restrictions on occupied undeveloped core and buffer areas, and Part I, Section 2.3 for restrictions on developed areas.

Occupancy simply refers to whether or not an AEI is occupied during a species' period of sensitivity. For Southwestern Willow Flycatchers, LANL biological resources SMEs are primarily concerned with protecting the birds from disturbance during the breeding season. Because individuals may colonize suitable habitat, the Southwestern Willow Flycatcher AEI is treated as though it is occupied from May 15 through September 15 or until surveys show an AEI to be unoccupied. Southwestern Willow Flycatcher surveys are conducted during May, June, and July. Because Southwestern Willow Flycatchers migrate south for the winter, the AEI is treated as unoccupied from September 16 to May 14.

The occupancy status of an AEI affects what activities are allowable in the AEI. Although activities causing habitat alterations are always restricted, disturbance activities are restricted only in occupied AEIs. Table 2 provides dates and levels of disturbance activities allowable in the occupied Southwestern Willow Flycatcher AEI under the guidelines of this site plan. The dates in Table 2 indicate the time period during which the activity is restricted. Contact a LANL biological resources SME to find out the current occupancy status of an AEI (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

4.3 Introduction to AEI Management Guidelines

Summary: The habitat alterations section (Section 4.4) and the activities section (Section 4.5) gives the guidelines for habitat alteration and disturbance activities, respectively, for the

Southwestern Willow Flycatcher AEI. The flow chart (see Figure 1) provides a quick reference to determine what, if any, guidelines need to be consulted for a specific activity. Protective measures give management practices that should be applied when working or considering work in AEIs. LANL biological resources SMEs are available to answer questions and provide advice (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

Sections 4.4 and 4.5 provide the guidelines for habitat alterations and allowable activities in AEI core and buffer areas. The flow chart (see Figure 1) provides a quick reference that should be used to determine whether a project or activity will affect an AEI and what sections of the site plan need to be consulted. The section on habitat alterations (Section 4.4) describes what and where habitat alterations are allowed under the guidelines of this site plan. The section and table on allowable activities (Section 4.5 and Table 2) describe what, when, and where disturbance activities are allowed in occupied AEIs under the guidelines of this site plan. If an activity does not meet the restrictions given in the guidelines, the activity must be individually reviewed for ESA compliance. This site plan only provides guidelines for the Southwestern Willow Flycatcher AEI. If an activity is desired in an area with overlapping AEIs, all applicable site plans must be consulted. Section 4.6 describes management practices that should be applied when working or considering work in an AEI. LANL biological resources SMEs are available to help interpret site plans and answer questions (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

4.4 Definition of and Restrictions on Habitat Alterations

4.4.1 Definition of Habitat Alterations

Habitat alteration includes any action that alters over the long-term the soil structure, vegetative components necessary to the species, prey quality and quantity, water quality, hydrology, or noise or light levels in undeveloped areas of an AEI. Long-term means the alteration lasts for more than one year. Habitat alteration includes any activity that removes vegetative components important to the Southwestern Willow Flycatcher (primarily trees and shrubs). An actual activity may take place outside of the AEI and will be considered habitat alteration if consequences of the activity have effects inside the AEI core.

The habitat components most important to flycatchers include vegetative structure, food quality and quantity, and disturbance levels, including noise and light. The thickets of certain trees and shrubs along wetlands are important because they provide roost sites and a suitable habitat for nesting and foraging.

4.4.2 Fuels Management Practices to Reduce Wildfire Risk

Thinning within undeveloped buffer areas may include trees of any size to achieve 7.6 m (25 ft) spacing between tree crowns. However, clear cutting is not allowed in undeveloped buffer areas. No fuels management practices are allowed in core areas. Habitat alterations including thinning are not restricted in developed areas. All fuels management activities in developed and buffer areas must follow the guidelines in the Activity Table (Table 2, Section 4.5.2) if the AEI is occupied.

4.4.3 Utility Corridors

Habitat alterations such as cutting down trees that threaten power lines are allowed within 8 m (26 ft) of either side of an existing utility line in all areas of an AEI (Trujillo and Racine 1995).

New utility lines and utility lines requiring clearance of a right-of-way greater than 16 m (52 ft) total must be individually reviewed for ESA compliance. Disturbance activities must follow the guidelines given in the Activities Table for occupied AEIs.

4.4.4 Restrictions on Habitat Alterations

Summary: Habitat alterations other than the utility corridor maintenance described above are not allowed in undeveloped core areas under the guidelines of this site plan. Habitat alteration in buffers is limited. If a project or activity is planned that would alter habitat in an undeveloped core area, it must be individually evaluated for ESA compliance. Habitat alterations in a buffer area other than fuels management activities or utility corridor maintenance must be reported to a LANL biological resources SME for tracking (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

4.5 Definition of and Restrictions on Disturbance Activities

4.5.1 Definition of Disturbance Activities

LANL biological resources SMEs considered five categories of activities that might cause disturbance in an AEI. Most of the categories were first identified in the document “Peregrine Falcon Habitat Management in the National Forests of New Mexico” prepared for the U.S. Forest Service (Johnson 1994). Other light production and other noise production were included to provide the most comprehensive list of activities possible, reducing the need for individual review of activities for ESA compliance. The categories of activities are people, vehicles, aircraft, other light production, and other noise production. The impact of explosives detonation on this species is not considered here because there are no explosives testing sites within 2 km (1.25 mi) of potential nesting habitat. Low, medium, and high levels of impact for these activities are considered here. The following categories of activities are restricted only in AEIs that are classified as occupied.

People—includes any entry of people into an AEI on foot.

- Low impact is the presence of three or fewer people per project and duration of one day or less during a breeding season.
- Medium impact is the exceedance of either the number of people or the duration criteria.
- High impact is the exceedance of both the number of people and the duration criteria.

Vehicles—includes the entry of any two-axle highway vehicle, all-terrain vehicle, or motorized machinery into an AEI by any route other than a paved road or an improved gravel road.

- Low impact is the presence of two or fewer vehicles per project and duration of one day or less during a breeding season.
- Medium impact is the exceedance of either the number of vehicles or the duration criteria.
- High impact is the exceedance of both the number of vehicles and the duration criteria.

Aircraft—includes the operation of any aircraft below an elevation of 600 m (2,000 ft) above the highest ground level in the local vicinity.

- Low impact is the presence of one single-engine airplane and duration of one day or less during a breeding season.
- Medium impact is the exceedance of either the number of aircraft or the duration criteria.
- High impact is the exceedance of both the number of aircraft and the duration criteria.

Any use of helicopters, jet airplanes, and propeller airplanes with two or more engines is classified as medium impact or above, depending on duration.

Other Light Production—includes any activity not previously listed that causes additional light to occur in an AEI core area (e.g., plans for construction of a new building at the edge of a developed area may call for lighting at night to facilitate nighttime work that impacts an undeveloped core area).

- Low impact is the increase of light intensity by up to 0.05 fc and a duration of one night or less per project per breeding season.
- Medium impact is the exceedance of either the intensity or duration criteria.
- High impact is the exceedance of both the intensity and duration criteria.

Measurements for increases in light are taken at the AEI core area boundary closest to the light source, if the source is outside the core, and at 10 m (33 ft) from the source if the source is inside the core. Light measurements for developed areas are taken at the edge of the developed area if the developed area is within an AEI core, or at the closest core boundary, if the developed area is outside of an AEI core.

Other Noise Production—includes any activity not previously listed except for explosives detonation that causes additional noise to occur in an AEI. For example, operation of machinery causes noise.

- Low impact is increasing noise levels in an AEI core by 6 dB(A) or less for one day or less per project per breeding season.
- Medium impact is the exceedance of either the level or the duration criteria.
- High impact is the exceedance of both the level and the duration criteria.

Measurements for increases in noise are taken at the AEI core boundary closest to the noise source if the source is outside the core, and at 10 m (33 ft) from the source if the source is inside the core. Noise measurements for developed areas are taken at the edge of the developed area if the developed area is within an AEI core, or at the closest core boundary if the developed area is outside of an AEI core.

4.5.2 Activity Table

Disturbance activities are of concern only when Southwestern Willow Flycatchers occupy an AEI. The AEI is always considered occupied between May 15 and September 15, or until surveys show the AEI to be unoccupied. The Southwestern Willow Flycatcher AEI is always considered unoccupied between September 16 and May 14, when flycatchers have migrated for the winter.

For occupancy status of an AEI after completion of surveys, contact a LANL biological resources SME (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

Table 2. Restrictions on Activities in Undeveloped Occupied Southwestern Willow Flycatcher AEI

	Core	Buffer
<i>Restrictions on Occupied Habitat</i>		
<i>People</i>		
Low	No Restrictions	No Restrictions
Medium	May 15 to August 15	No Restrictions
High	May 15 to September 15	No Restrictions
<i>Vehicles</i>		
Low	May 15 to September 15	No Restrictions
Medium	May 15 to September 15	No Restrictions
High	May 15 to September 15	No Restrictions
<i>Aircraft</i>		
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
<i>Other Light/Noise Production</i>		
Low	May 15 to September 15	No Restrictions*
Medium	May 15 to September 15	No Restrictions*
High	May 15 to September 15	No Restrictions*

*Noise or light production in the buffer is restricted if the activity would violate core area restriction on noise or light.

4.6 Protective Measures

Summary: This section provides a list of management practices to apply in the AEI.

- No wetland vegetation will be removed outside of developed areas.
- Appropriate erosion and runoff controls should be employed to reduce soil loss.
- Avoid unnecessary disturbance to vegetation (e.g., excessive parking areas or equipment storage areas, off-road travel, materials storage areas, crossing of streams or washes).
- Avoid removal of vegetation along drainage systems and stream channels.
- Avoid all vegetation removals not absolutely necessary.
- Appropriate erosion controls must be put in place and periodically checked throughout the life of any projects.
- All exposed soils must be revegetated as soon as feasible after disturbance to minimize erosion.

5.0 SOUTHWESTERN WILLOW FLYCATCHER AEI DESCRIPTION

5.1 Pajarito Canyon Southwestern Willow Flycatcher AEI

5.1.1 Allowable Habitat Alteration in the Buffer Area

Since the purpose of the buffer area is to help maintain the core area as suitable Southwestern Willow Flycatcher habitat, habitat alteration in the buffer area will be extremely limited. There are two areas in which restrictions on habitat alteration are relaxed.

1. The mesa top of Mesita del Buey. This mesa top can be developed as long as restrictions on impacts to the core area are met.
2. Pajarito Road within the AEI. Mowing of upland vegetation is allowed up to 5 m (15 ft) from Pajarito Road, or to the fence, if the fence is within 9 m (30 ft). Vegetation must cover the roadsides to prevent sediment runoff, so mowed plants should be at least 5 cm (2 in) high. LANL biological resources SMEs encourage the growth of willow throughout the AEI—even the area along Pajarito Road—to enhance habitat. If, within this area, it is absolutely necessary to remove new willow growth (i.e., to improve visibility for human safety), LANL biological resources SMEs recommend that only willows at or above the level of the roadway surface be mowed.

IV. AREA OF ENVIRONMENTAL INTEREST SITE PLAN FOR THE JEMEZ MOUNTAINS SALAMANDER

1.0 SPECIES DESCRIPTION—JEMEZ MOUNTAINS SALAMANDER

1.1 Status

The Jemez Mountains Salamander (*Plethodon neomexicanus*) was listed in New Mexico as endangered under the Wildlife Conservation Act of New Mexico in 2006 (NMDGF 2006). In September 2012 the USFWS proposed the Jemez Mountains Salamander as endangered under the ESA (FR 2012) and the final listing as endangered was on 10 September 2013 (FR 2013a)

1.2 General Biology

The Jemez Mountains Salamander is endemic to the Jemez Mountains of north-central New Mexico and is found in Los Alamos, Rio Arriba, and Sandoval counties (Stebbins and Rierner 1950). It is one of two endemic plethodontid salamanders that occur in New Mexico. It occurs predominantly at elevations between 2,130 to 3,430 m (6,988 to 11,254 ft) in mixed-conifer forest with greater than 50 percent canopy cover consisting mainly of Douglas fir (*Pseudotsuga menziesii* [Mirb.] Franco), blue spruce (*Picea pungens* Engelm.), Engelmann spruce (*Picea engelmannii* Parry ex Engelm.), white fir (*Abies concolor* [Gord. & Glend.] Lindl. ex Hildebr.), limber pine (*Pinus flexilis* James), ponderosa pine, and quaking aspen (*Populus tremuloides* Michx.). The ground surface in forest areas has (a) moderate to high volumes of large fallen trees and other woody debris, especially coniferous logs at least 25 cm (10 in) in diameter, particularly Douglas fir, which are in contact with the soil in varying stages of decay from freshly fallen to nearly fully decomposed; or (b) structural features, such as rocks, bark, and moss mats that provide

the species with food and cover. Underground habitat in forest or meadow areas contains interstitial spaces provided by (a) igneous rock with fractures or loose rocky soils, (b) rotted tree root channels, or (c) burrows of rodents or large invertebrates (Degenhardt et al. 1996; FR 2013b).

Plethodontid salamanders, which lack both lungs and gills, breathe through the mucous membranes in their mouth and throat and through their moist skin. The Jemez Mountains Salamander is completely terrestrial and does not use standing surface water for any life stage (FR 2012). Present in its habitat year-round, the Jemez Mountains Salamander spends most of its life underground, but can be found on the surface when conditions are warm and wet, approximately July through October. During this time, the Jemez Mountains Salamander can be found under rocks, bark, and moss mats and inside and under logs (Ramotnik 1986, Everett 2003). The Jemez Mountains Salamander eats invertebrates, including ants, mites, and beetles, and is thought to lay its eggs underground (FR 2013b).

1.3 Threats

Principal threats to habitat include historical fire exclusion and suppression and severe wildland fires; forest composition and structure conversions; post-fire rehabilitation; forest and fire management; roads, trails, and habitat fragmentation; recreation; and disease (FR 2012).

2.0 IMPACT OF HUMAN ACTIVITIES

2.1 Introduction

Primary threats to the Jemez Mountains Salamander on LANL property are impacts to habitat quality or destruction of individual salamanders caused by LANL or Los Alamos County operations. Forested LANL property is also subject to impacts from severe wildland fire and wildfire suppression.

2.2 Impacts on Habitat Quality

2.2.1 Development

Property at LANL varies from remote isolated land to heavily developed and/or industrialized. Most of the large developed areas at LANL are found on mesa tops, generally in the northern and western portion of LANL. The areas of Jemez Mountains Salamander habitat currently most impacted by development occur in Los Alamos Canyon. There is a secondary paved road (West Road) in the bottom of the canyon that exits the canyon on the north-facing slope through Jemez Mountains Salamander habitat. The canyon bottom also contains a recreational ice rink operated by Los Alamos County on an inholding owned by Los Alamos County. Development that reduces the occurrence of primary constituent elements of Jemez Mountains Salamander in core habitat would likely have a negative impact on the species.

2.2.2 Pedestrians and Vehicles

Many canyon bottoms and mesa tops at LANL have dirt roads traversing them. Most of these roads are gated; however, many of these roads are accessible to LANL employees and the public on foot or by bike. Some areas, such as Los Alamos Canyon, are frequently used by hikers and dog owners on active and historic trails which traverse the canyon, through Jemez Mountains

Salamander habitat in places. Maintenance of roads and trails in the habitat may have a negative impact on the species.

2.2.3 Severe Wildland Fire and Wildfire Suppression

Stand-replacing wildfires significantly change forest composition and structure, and reduce canopy cover. Even ground wildfires may reduce the volume of fallen logs and large woody debris. Large areas of historic Jemez Mountains Salamander habitat have been impacted by stand-replacing wildfires associated with current forest stocking conditions, drought, and high temperatures (FR 2012). Forested habitats on LANL are also subject to severe wildland fires. To mitigate wildfire risks, some areas of LANL have been treated for fuels reduction and creation of fuel breaks both pre-emptively and during active wildfire suppression. Both wildfires and wildfire suppression activities can negatively impact the primary constituent elements of Jemez Mountains Salamander core habitat.

2.3 Impacts on Individual Salamanders

2.3.1 Disease

The amphibian pathogenic fungus *Batrachochytrium dendrobatidis* (Bd) was found in a wild-caught Jemez Mountains Salamander in 2003 (Cummer et al. 2005) on the east side of the species' range and again in another Jemez Mountains Salamander in 2010 on the west side of the species' range (FR 2012). Bd causes the disease chytridiomycosis, whereby the Bd fungus attacks keratin in amphibians. In adult amphibians, keratin primarily occurs in the skin. The symptoms of chytridiomycosis can include sloughing of skin, lethargy, morbidity, and death. Chytridiomycosis has been linked with worldwide amphibian declines, die-offs, and extinctions, possibly in association with climate change (Pounds et al. 2006). Chytridiomycosis may be a threat to the Jemez Mountains Salamander because this disease is a threat to many other species of amphibians and the pathogen has been detected in the Jemez Mountains Salamander (FR 2012).

As part of a cooperative study with the New Mexico Department of Game and Fish between 2007 and 2013, various amphibian species including the canyon tree frog (*Hyla arenicolor*), western chorus frog (*Pseudacris triseriata*), Woodhouse's toad (*Anaxyrus woodhousii*), tiger salamander (*Ambystoma tigrinum*), and Jemez Mountains Salamander were tested for Bd infection at LANL. To date, all sampling has been negative for Bd infection (Fresquez et al. 2013).

2.3.2 Destruction of Individual Salamanders

During periods of the year when Jemez Mountains Salamander are on the soil surface, when conditions are warm and wet (generally July to October), they are vulnerable to injury and mortality from soil-disturbing activities, including operation of heavy equipment in core habitat. They also are at risk to be found and collected by people.

3.0 AEI GENERAL DESCRIPTION FOR JEMEZ MOUNTAINS SALAMANDER

The AEI consists of two areas, a core area and a buffer area. The core habitat is defined as suitable habitat where the Jemez Mountains Salamander occurs or may occur at LANL. The core habitat consists of sections of north-facing slope that contain the required micro-habitat to support Jemez

Mountains Salamander. The buffer area is 100 m (328 ft) wide extending outward from the edge of the core area.

3.1 Method for Identifying a Jemez Mountains Salamander AEI

The first step in identifying potential Jemez Mountains Salamander at LANL was to use a GIS to model habitat. Early modeling efforts by Hathcock (2008) identified areas of potential habitat and that model was further refined. The following parameters were modeled in the GIS:

- Elevation: 7,000 ft (2,150 m) and above
- Slope: Greater than 20 degrees
- Aspect: north-facing +/- 20 degrees
- Land cover: Mixed conifer
- Land use: Undeveloped
- Modeled habitat is only selected if it is greater than five contiguous 30 × 30 m (98 × 98 ft) pixels in size

Once this habitat layer was developed, a second layer was modeled that examined the level of shade in the habitat, also known as an illumination index. Since the Jemez Mountains Salamander needs cool moist conditions, an illumination index model would further highlight areas where this habitat type may occur or further reinforce the areas selected by the GIS modeling. The illumination index describes the amount and extent of solar radiation reaching the Earth's surface at a given point. This takes into account the topography that may cast shadows. The illumination model was developed using the 5 m (16 ft) resolution digital elevation model hillshade and using the Surface toolbox in ArcToolbox (Environmental Science Research Institute, Redlands, California) using the highest height of the sun on June 21 at 1:00 pm, altitude of 74.4 and Azimuth of 178.4, when the sun would be at its maximum height. These procedures were based on work done by Reilly et al. (2009).

Once this modeling was complete, LANL biological resources SMEs performed field validation to verify the suitability of the modeled habitat. The goal was to verify that mixed conifer was still the dominant cover class in the selected area. The GIS analysis used data from a landcover map created by McKown et al. (2003). There have been changes in habitat since this landcover map was published from fire and extreme drought effects. Since LANL is on the extreme edge of Jemez Mountains Salamander lower elevational range, a key component in this part of its range is soil moisture content. During field validation, evidence of a moist mixed conifer habitat versus a dry mixed conifer habitat was noted. One of the key indicators used to delimit areas of moist versus dry mixed conifer during the field validation was the presence of white fir (Evans et al. 2011) combined with a high canopy cover.

Field validation of the model occurred in May 2013, or decisions were based on earlier field visits to the sites from other projects. Each field validation consisted of LANL biological resources SMEs walking down all of the modeled habitat polygons to look for the presence of indicator features. If a polygon of modeled habitat contained white fir, indicating a moist wet conifer type habitat, a high canopy closure, and other signs of high habitat quality such as dead logs, moss or

other areas that could be used as cover by the Jemez Mountains Salamander, then the polygon was marked for retention in the final core habitat. Polygons that did not contain the necessary habitat requirements were omitted.

After the field validation was complete, the final core habitat boundaries that LANL would recognize were hand digitized using ArcGIS (Environmental Science Research Institute, Redlands, California) by LANL biological resources SMEs in and around the validated modeled polygon and areas between polygons if appropriate. The final identified core habitat at LANL occurs on the north-facing slopes of canyons. Toward the rim of the canyon the core boundaries end where the mixed conifer ends. In the canyon bottoms the core boundary extends to the edge of the stream channel. The upstream and downstream core boundaries end where the mixed conifer ends. A buffer habitat was extended around the core to a distance of 100 m (328 ft) outward. The LANL Fenton Hill satellite facility in the Jemez Mountains off of New Mexico Highway 126 is on land leased to DOE by the Santa Fe National Forest. The entire footprint is considered to be developed core habitat for the Jemez Mountains Salamander, since proposed critical habitat is adjacent to the facility.

3.2 Location and Number of Jemez Mountains Salamander AEIs

The identified Jemez Mountains Salamander core habitats were grouped by canyon system into AEIs, which contain contiguous and noncontiguous habitat areas. The largest contiguous section of habitat at LANL is in Los Alamos Canyon. There are two noncontiguous areas of habitat in Two-mile Canyon, four in Pajarito Canyon, one contiguous area in Cañon de Valle, and the entire Fenton Hill facility.

4.0 AEI MANAGEMENT

4.1 Overview

This AEI management section provides guidelines for LANL operations to reduce or eliminate the threats to the Jemez Mountains Salamander from habitat alterations that reduce habitat quality. Habitat alterations are considered for all AEIs and for both core and buffer areas. Developed areas that have ongoing baseline levels of activities and are not suitable habitat for Jemez Mountains Salamander have different restrictions than undeveloped core or buffer areas. AEIs for different species may overlap, and an activity must meet the guidelines of all applicable site plans to be allowable. Protective measures are described as management practices that should be followed when working in AEIs.

4.2 Definition and Role of Occupancy in AEI Management

Occupancy simply refers to whether or not an AEI is occupied by the Jemez Mountains Salamander. The Los Alamos Canyon AEI is known to be occupied based on past surveys. Surveys for the Jemez Mountains Salamander are known to have a very low detection rate for occupied areas, so at LANL all AEIs are assumed to be occupied at all times. If needed, site-specific surveys will be conducted by federally permitted LANL biological resources SMEs.

4.3 Definition and Role of Developed Areas in AEI Management

Developed areas include all building structures, paved roads, improved gravel roads, and paved and unpaved parking lots. The majority of Jemez Mountains Salamander core habitat is in undeveloped areas, except for the satellite facility at Fenton Hill and a small amount of habitat in Los Alamos Canyon where West Road crosses the habitat. Generally, developed areas will not have restrictions; however, some of the undeveloped sections within the footprint of Fenton Hill may have restrictions because they may contain Jemez Mountains Salamanders when they move to the surface between July and October. Any project that occurs within developed core habitat will be evaluated by LANL biological resources SMEs for ESA compliance.

4.4 General Description of Core and Buffer Areas and Allowable Area Development

The purpose of buffer areas is to protect core areas from habitat degradation. The current levels of development in buffer and core areas represent baseline conditions for this site plan. No further development is allowed in the core area under the guidelines of this site plan. Any development in a buffer area will be reviewed by LANL biological resources SMEs to ensure that there are no impacts to the core habitat.

4.5 Emergency Actions

If safety and/or property are immediately threatened by something occurring within an AEI (for example, wildfire, water line breakage, etc.) please contact a LANL biological resources SME (1-505-665-3366) as soon as possible. If the emergency occurs outside of regular business hours, contact the Emergency Management Office (1-505-667-6211). This office will then communicate with the appropriate LANL personnel.

4.6 Introduction to AEI Management Guidelines

Section 4.7 provides the guidelines for habitat alterations and allowable activities in AEI core and buffer areas. It describes what and where habitat alterations are allowed under the guidelines of this site plan. If an activity does not meet the restrictions given in the guidelines, the activity must be individually reviewed for ESA compliance. This site plan only provides guidelines for the Jemez Mountains Salamander AEIs. If an activity is desired in an area with overlapping AEIs, all applicable site plans must be consulted. AEI maps show the location of all AEIs in an area. LANL biological resources SMEs are always available to help interpret site plans and answer questions (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

4.7 Definition of and Restrictions on Habitat Alterations

4.7.1 Definition of Habitat Alterations

Habitat alteration includes any action that alters the soil structure, vegetative components necessary to the species, water quality, or hydrology in undeveloped areas of an AEI. An actual activity may take place outside of the AEI and will be considered habitat alteration if consequences of the activity have effects inside the AEI core. Habitat alterations would also include soil pits for soil samples deeper than 15 cm (6 in) using either hand or mechanized augers. Any activity that might disturb the soil will need to be reviewed by LANL biological resources SMEs.

The habitat components most important to the Jemez Mountains Salamander include soil structure and vegetative structure. The forest structure within an area designated as a Jemez Mountains Salamander AEI is important because it provides the necessary moist, cool microclimate.

4.7.2 Fuels Management Practices to Reduce Wildfire Risk

One of the primary threats to the Jemez Mountains Salamander is wildfire (FR 2012), but they also require habitat with a high canopy cover which makes fuels reduction challenging. Within undeveloped core areas, thinning trees to a level of 80 percent canopy cover or higher is approved. Trees may not be thinned below 80 percent canopy cover without further ESA review by LANL biological resources SMEs. Large logs on the ground should be left in place and not chipped. Understory thinning that does not reduce total canopy cover below 80 percent is permitted. Large trees that are felled should be left as large logs on the ground. Smaller trees and understory shrubs that may be thinned should be dispersed and left on-site to aid in soil moisture retention. Thinning activities should not occur during the rainy season between July to October (or when freezing temperatures begin, whichever comes first) when the Jemez Mountains Salamander is found on the surface.

In buffer areas, thinning of trees can occur to the current LANL-approved prescription level (LAAO 2000). LANL biological resources SMEs are available to provide guidance and mark trees for thinning (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

4.7.3 Utility Corridors

Habitat alterations such as cutting down trees that threaten power lines are allowed within 8 m (26 ft) of either side of an existing electrical utility line at LANL under existing guidelines and engineering controls (Hathcock 2013). This level is approved in all areas of an AEI. New utility lines and utility lines requiring clearance of a right-of-way greater than 16 m (52 ft) total in core habitat must be individually reviewed for ESA compliance.

4.7.4 Restrictions on Habitat Alterations

Habitat alterations other than the fuels management practices and utility corridor maintenance described above are not allowed in undeveloped core areas under the guidelines of this site plan. If a project or activity is planned that would alter habitat in an undeveloped core area, it must be individually evaluated for ESA compliance. Habitat alterations in buffer areas must be reviewed by LANL biological resources SMEs to ensure that there are no impacts to core habitat.

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APPENDIX

Table A-1. The percentage of each food type found in Mexican Spotted Owl food remains at LANL

Species	Relative Abundance
<i>Neotoma</i> spp.	26.22
<i>Peromyscus</i> spp.	10.22
<i>Microtus</i> 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

APPENDIX L

Procedures Referenced in the SWPPP

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LANL Waste Management

1.0 PURPOSE

This document describes Los Alamos National Laboratory (LANL or the Laboratory) requirements for waste generated and managed by Waste Generators and Treatment Storage Facilities (TSFs) to ensure compliance with legal mandates and Laboratory requirements as necessary to protect human health, safety, and the environment. This document has been revised as part of a process in which the Laboratory systematically plans, documents, executes, and evaluates its management of regulated waste streams.

This document addresses LANL's waste management requirements for Waste Generators and TSFs as necessary to safely manage, store, and treat wastes. The Waste Generator must know and document what is in the waste, and TSFs must meet waste analysis requirements under the [LANL Hazardous Waste Facility Permit](#). This document also addresses LANL's Waste Certification and Self-Assessment Programs, to ensure there is a systematic, documented approach for compliance with requirements in this document.

All Waste Generators, including subcontractors, who generate a regulated waste, must work with Waste Management (WM) to meet the requirements in this and other required documents to ensure that the following are met:

- the waste is properly characterized, managed, stored, and transported, and
- the waste certification program is implemented at the waste generating site before the waste is shipped off-site from LANL.

The Environmental Protection Agency (EPA) and the New Mexico Environment Department (NMED) have established requirements, which are addressed in this document, for Waste Generators and TSFs to ensure regulated waste is characterized, managed, stored, treated, and transported compliantly. To ensure compliance with legal mandates, the requirements in this and other requirements documents (i.e., [P930-1](#), *LANL Waste Acceptance Criteria*, Associate Director for Environment, Safety, and Health [ADESH], and Functional Series Documents [FSDs]) are established to be consistent with Department of Energy (DOE) Orders, federal and state laws and regulations, the [LANL Hazardous Waste Facility Permit](#), and reporting requirements.

2.0 AUTHORITY AND APPLICABILITY

2.1 Authority

This document is issued under the authority of the Laboratory Director to direct the management and operation of the Laboratory, as delegated to ADESH as provided in the [Prime Contract](#). This document derives from the Laboratory [Governing Policies](#), particularly the section on Environment, and implements requirements in the [Prime Contract](#), particularly Department of Energy Acquisition Regulation (DEAR) 970.5223-1, *Integration of Environment, Safety, and Health into Work Planning and Execution* (Dec. 2000); Part III, Section J, Appendix B 4.2 and Part III, Section J, Appendix G; [DOE Order \(O\) 435.1](#), *Radioactive Waste Management*; [DOE Manual \(M\) 435.1-1](#); *Radioactive Waste Management Manual*; the [Resource Conservation and Recovery Act \(RCRA\)](#); the [Toxic Substances Control Act \(TSCA\)](#); [New Mexico Special Waste Act](#); [74-9-1 NMSA 1978](#), *Solid Waste Act*, and the [74-4-1 NMSA 1978](#), *Hazardous Waste Act*.

- Issuing Authority (IA): Associate Director for Environment, Safety, and Health (ADESH)
- Responsible Manager (RM): Waste Management (WM) Division Leader
- Responsible Office (RO): Waste Management-Division Office (WM-DO)

2.2 Applicability

This document applies to all workers, including subcontractors, who generate, manage, treat, or store regulated waste at the Laboratory as a Waste Generator or at a TSF. Regulated waste, as used in this document, refers to all types of waste including office waste, solid waste, universal waste, hazardous waste, mixed radioactive waste, and radioactive-only waste. Waste Generators include workers who generate regulated waste and store the waste in staging areas, accumulation areas, or less-than 90 day storage areas. TSFs include workers who manage, treat, or store regulated waste under the [LANL Hazardous Waste Facility Permit](#). All other persons working at the Laboratory must follow the requirements as set forth in their contractual agreements or subcontracts.

3.0 PROCEDURE DESCRIPTION

3.1 Overview

There are two main aspects to this document. First, it establishes specific responsibilities for Waste Generators and TSFs to manage and store regulated wastes to ensure the protection of human health, safety, and the environment (Sections 3.2 through 3.7). Second, it describes LANL's Waste Certification Program, which requires a documented approach to ensure that waste management (treatment, storage and disposal) of waste streams complies with applicable requirements (Section 3.8) prior to off-site shipment.



Fig. 1. LANL Waste Management Components

Waste Generators and TSF workers will find more detailed information on waste compliance in the ADESH FSDs. These FSDs may consist of non-mandatory information, such as aids and guidance (ADESH-TOOLS) or mandatory requirements, regarding waste type and compliance factors. These FSDs are issued by ADESH in accordance with [PD311](#), *Requirements System and Hierarchy* and [ADESH-AP-007](#), *Document Control*.

If a Facility Operations Director (FOD), the Facility Responsible Line Manager (RLM), a Facility Point of Contact and/or a Waste Generator chooses to specify additional local-level procedures for waste management activities, those local procedures and changes thereto must be reviewed and approved through WM-DO before they are issued and implemented. Such procedures, including ADESH Administrative Procedures (ADESH-APs) and ADESH Technical Procedures (ADESH-TPs), may be subject to review in accordance with Safety Basis Procedure (SBP) [SBP-112-3-R1.2](#), *Unreviewed Safety Question (USQ) Process*, and [P315](#), *Conduct of Operations Manual*. WM-DO confirms that Waste Generators are compliant with potential waste streams through oversight requirements for their waste streams and that waste requirements are met in the planning stage for all waste and potential waste streams.

Before waste generating projects (remediation, Demolition and Decontamination, Footprint Reduction, etc.) begin, WM-DO must review (1) all characterization methodologies that were part of the planning stage and the preparation for waste disposition and (2) all requests for use of a DOE or LANL subcontractor that was not procured through [WM-DO](#) via e-mail.

Before generating regulated waste or commencing waste characterization activities, a Waste Generator must consult with their [Waste Management Coordinator \(WMC\)](#). TSFs must comply with their local-level procedures and the [LANL Hazardous Waste Facility Permit](#).

Waste Generators and TSFs must also meet the requirements of the LANL Pollution Prevention Program, which implements pollution minimization goals through Pollution Prevention Opportunity Assessments and other tools. The LANL Pollution Prevention Program requires Waste Generators and TSFs to identify potential alternatives to the generation of waste including use of less toxic materials, alternative processes, waste minimization techniques, and following the requirements [DOE O/M 435.1](#), *Radioactive Waste Management/Manual* and [DOE O 436.1](#), *Departmental Sustainability*. In addition, TSFs must meet waste minimization requirements of the [LANL Hazardous Waste Facility Permit](#).

The Waste Certification Official (WCO) must be notified by the originating organization when a Nonconformance Report (NCR) or a Performance Feedback and Improvement Tracking System (PFITS) issue is entered into the system regarding regulated waste. WCO concurrence for corrective actions must be obtained by e-mail prior to closure.

3.2 Identifying Waste

Waste Generators must correctly identify their waste through waste characterization as specified below. If a Waste Generator needs assistance with and/or cannot identify the waste type, the worker must contact their WMC. In addition, if a LANL worker or subcontractor discovers a waste stream with no identifiable Waste Generator, the worker must contact their WMC. See [ADESH-TOOL-213](#), *No Owner Waste*.

“Office waste” refers to wastes generated in an office environment and can include solid waste (e.g., office paper, food waste, trash), recyclables (e.g., paper, cardboard, plastics), universal waste (e.g., batteries and fluorescent light bulbs) and hazardous waste (e.g., aerosol cans). [ADESH-TOOL-114](#), *Office Waste Tool*, [ADESH-TOOL-111](#), *Waste Characterization*, and [ADESH-TOOL-314](#), *Radioactive Characterization*, help Waste Generators quickly identify their regulated waste types and describe additional tools with requirements for their regulated waste types.

Project Management (PM) projects, Environmental Remediation (ER) or decontaminated and decommissioned must notify WM-DO via e-mail of upcoming waste generation projects and provide all pertinent planning documentation and characterization documentation for evaluation. Use of the Permits and Requirements Identification (PRID) system is required (see [PD400](#), *Environmental Protection*).

3.2.1 Waste Characterization

Waste Generators and TSFs are required to ensure that waste characterization is accurate, complete and up-to-date. Waste Generators must make a waste determination and characterize regulated waste by appropriate analytical testing or use of acceptable knowledge e.g., Material Safety Data Sheets (MSDSs), product labels, and historical data. TSFs must meet waste analysis plan requirements under the [LANL Hazardous Waste Facility Permit](#) prior to acceptance of the generator’s waste for treatment or storage. If a Waste Generator does not supply complete and adequate waste characterization information, the TSF or off-site Treatment Storage and Disposal Facility (TSDF) may not accept the waste. Waste Generators and TSFs must ensure that waste characterization documentation is maintained, protected, controlled, and available for internal and/or any third party reviews.

Note: TSF workers become “Waste Generators” when activities at the TSF (e.g., repackaging, sorting, and segregation) lead to the generation of regulated waste or trigger re-characterization of the waste stream as described within this section.

Waste Generators must consult with their WMCs to start the waste characterization process, when working with a new process that may create a new regulated waste stream, or when waste processing has been modified. [ADESH-TOOL-111](#), *Waste Characterization* and [ADESH-TOOL-314](#), *Radioactive Characterization*, help Waste Generators document and characterize regulated wastes, and describe additional tools with requirements for their regulated waste types. The Waste Generator must sign a Waste Stream Profile (WSP) Certification Statement in the [Waste Compliance and Tracking System \(WCATS\)](#), assuring that waste characterization is correct and meets applicable waste acceptance criteria. This certification attests to the accountability and legal defensibility of the waste characterization for internal or external third party reviews.

As part of the requirement to characterize regulated waste, the Waste Generator must

- submit a waste stream profile in WCATS for each waste stream;
- upload all waste characterization documentation into WCATS and ensure that all valid documentation is referenced in WCATS with a unique identifier;
- sign the WSP Certification Statement assuring accurate and complete characterization of the waste; and
- annually re-evaluate waste characterization for each WSP to verify accuracy of the waste characterization. For compliance purposes, this annual period is defined as less than one year since the original waste characterization or the last recharacterization.

After waste has been identified and entered into WCATS, the waste characterization will be reviewed by the WM-DO prior to a new waste stream identification number being activated. WM-DO screens documentation for LANL facilities that characterize waste streams by acceptable knowledge, process knowledge (or knowledge of process), historical knowledge, etc.

Note: If waste with no disposal path must be generated, the Waste Generator must contact [WM-DO](#) via e-mail for prior authorization.

TSFs must meet waste characterization requirements of the [LANL Hazardous Waste Facility Permit](#), including specifically the Waste Analysis Plan (WAP).

3.2.1.a Waste Generator Recharacterization

Waste Generators must recharacterize and update waste characterization based on the following conditions if

- after an annual re-evaluation, there is any change to waste characterization information, including changes to the waste-generating process or operations;
- there is a change to the waste-generating processes or operations;
- analytical results indicate a change in the waste stream;
- new characterization information becomes available;
- a waste container is opened and secondary material is added to the container;
- waste is repackaged and secondary material is added during this process;
- there is a change in the ownership of a WSP; or
- the Waste Generator is notified that waste received at an off-site facility does not match a pre-approved waste analysis certification or accompanying shipping documentation.

Note: TSF workers may become Waste Generators when waste processing includes one of the activities described above.

The Waste Generators must contact the WM-DO in the event it is required to update waste characterization information described above. WM-DO will work through appropriate subject matter experts to assess the identified changes in the waste characterization and recommend actions.

3.2.1.b *Recharacterization at Treatment and Storage Facilities (TSFs)*

Under the [LANL Hazardous Waste Facility Permit](#), TSFs must update their waste characterization when the following occurs:

- a Waste Generator determines one or more of the above conditions in Section 3.2.1.a has occurred;
- TSF workers have reason to believe that the process or operation generating the waste has changed;
- waste is repackaged and secondary material is added during this process;
- waste received at an off-site facility does not match a pre-approved waste analysis certification or accompanying shipping documentation; or
- an inspection reveals that the waste does not match the identity of the waste specified by the Waste Generator or a manifest on a shipping paper.

3.2.2 **Waste Containing Potential Radioactive Contamination**

Potentially radioactive wastes (e.g., the waste or waste item was generated in a radiologically contaminated area) are summarized in [ADESH-TOOL-306](#), *Potentially Radioactive or Mixed Investigation-Derived Waste*. The Waste Generator is required to meet the actions specified in the tool.

If radioactive contamination is reasonably suspected to be present at a site (e.g., in wastes from potential release sites or poorly documented decontaminated and decommissioned sites), the waste must be characterized. See [ADESH-TOOL-314](#), *Radioactive Characterization*. The Authorized Release Limits Process is defined in [P411](#), *Authorized Release Limits Proposal Process* and is applicable only to materials that

- have residual radioactivity below the dose limits specified in [DOE O 458.1](#), *Radiation Protection of the Public and the Environment*, and
- do not contain [74-4-1 NMSA 1978](#), *Hazardous Waste Act* and [Resource Conservation and Recovery Act \[RCRA\]](#) constituents.

Note: For release of potentially activated metals previously stored in Radiation Control areas, see [RP-SOP-077.004](#), *LANSCE Metals Clearance Process* and [RP-SVS-RIC-TBD-03](#), *Technical Basis Documentation Regarding Health Physics Measurements for the Unrestricted Release of Metals from LANSCE*.

3.2.3 Waste Verification

To ensure compliance with DOE Directives, federal and state laws and regulations, [P930-1](#), *LANL Waste Acceptance Criteria*, and reporting requirements, WM-DO completes a verification checklist in accordance with [WM-PROG-QP-236](#), *Waste Certification Program Waste Verification*, and must verify accurate and thorough waste characterization. This includes the random or selected waste stream and can include the following (if applicable):

- a review of radiological assay;
- a visual examination of the waste;
- a sampling and chemical analysis of the waste;
- a verification that the waste has been properly characterized in accordance with applicable procedures, acceptable knowledge documentation, non-destructive assay records, chemical analysis documentation, and, if applicable, documentation of past visual examinations of the waste;
- a review of past verification results to determine the nature of any pre-existing problems; and
- a review of facility waste processes and procedures to verify operations meet waste certification requirements.

Note: The [LANL Hazardous Waste Facility Permit](#) requires an annual verification of the waste characterization of one percent of the total number of hazardous waste streams characterized solely by acceptable knowledge and managed at TA-54 in the previous calendar year.

3.3 Packaging Waste

Low-Level Waste (LLW) and Mixed Low-Level Waste (MLLW) must meet waste package certification requirements before the waste is disposed. Waste Generators of LLW and MLLW must make a request via e-mail to [WM-DO](#) to arrange for waste package certification. If there are specific waste issues regarding LLW and MLLW, the Waste Generator must contact the [WCO](#). To ensure compliance with federal and state laws, regulations and reporting requirements, the WCO will rely on established waste disposition requirements that are consistent with Waste Acceptance Criteria (WAC) requirements from the Nevada National Security Site (NNSS).

To prepare for waste disposition, the Waste Generator must refer to the [600 Series](#) FSDs, (*Transport of Waste*). All waste information regarding waste disposition must be documented in WCATS and a disposal request must be submitted through the WCATS system by the WMC. This will prompt WM-DO to initiate a waste shipment. WM-DO must be consulted on all specific waste issues as WM-DO is responsible for compliance with safe packaging and transportation requirements to off-site receiving facilities.

3.4 Storing Waste

Waste Generators and TSFs will store their waste in accordance with the requirements listed below.

3.4.1 Waste Areas

Waste Generators are responsible for ensuring that on-site waste accumulation and temporary storage (e.g., less-than 90-day storage areas) are conducted in [Registered Waste Areas](#). For more detailed instruction see the following:

- [ADESH-TOOL-206](#), *Hazardous Waste*;

- [300 Series Tools](#), (*Radioactive Waste*);
- [400 Series Tools](#), (*Universal Waste*);
- [500 Series Tools](#), (*NM Special Waste*);
- [ADESH-TOOL-712](#), *Polychlorinated Biphenyl (PCB) Waste*; and
- [ADESH-TOOL-716](#), *Used Oil for Recycle*.

TSFs can meet the requirements in the [LANL Hazardous Waste Facility Permit](#) by operating to the [800 Series Tools](#), (*Treatment, Storage, and Disposal Facilities*).

The WMC must also certify waste protection and storage by evaluating the waste and using [ADESH-TOOL-300](#), *General Radioactive Waste Management*, and [P930-1](#), *LANL Waste Acceptance Criteria*.

3.4.2 Site Treatment Plan (STP) for Mixed Transuranic (MTRU) and Mixed Low-Level Waste (MLLW) at TSFs

In accordance with the Site Treatment Plan (STP), LANL must report to NMED all MTRU waste and MLLW that will be stored at the Laboratory after 1-year of its accumulation start date. For STP waste containers, the start date refers to the date of receipt for storage at the LANL TSF. The STP summarizes the status of the current inventory, describes the progress being made to dispose of the waste, identifies treatment and disposal options for addressing the STP inventory, and provides overall schedules for management and disposition of mixed waste to demonstrate compliance with Land Disposal Requirement storage prohibitions under the RCRA and demonstrates compliance with the Federal Facility Compliance Order issued by NMED under the New Mexico Hazardous Waste Act.

To meet these compliance requirements, Waste Generators must notify the [STP Manager](#) via e-mail at least three months prior to the waste exceeding its 1-year accumulation start date that their waste must be added to the STP. The Waste Generators must provide the following:

- for MLLW and MTRU waste, an explanation as to why the waste will exceed its 1-year accumulation start date; and
- for MLLW only, compliance milestone dates when waste will be shipped off-site for treatment and disposal.

3.4.3 Radioactive Waste Management Basis

For Radioactive Waste, the FOD or RLM must submit [Form 2107](#), *Radioactive Waste Management Basis Report Form* (RWMB) to WM-DO. The Waste Generator must submit an updated [RWMB](#) to WM when there are changes in facility operations or waste status. For assistance in completing the [RWMB](#), contact WM-DO. The LANL [RWMB](#) consists of

- identification of the generating process owner;
- identification of every area where radioactive waste is generated;
- identification of waste management activities;
- reference to documents that support the [RWMB](#);
- institutional documents applicable to waste management;
- waste authorization basis documents pertinent to the waste generating facility;
- waste management processes within the facility and their locations;

- waste matrix (solid or liquid);
- waste categories generated, i.e., LLW, MLLW, TRU, and MTRU;
- volumes of generated waste by matrix, category, and annual estimates;
- characterization methods for each waste stream;
- how waste certification is protected when waste is transported;
- how waste certification is protected during waste storage;
- how the waste management quality assurance program protects waste certification; and
- proposed disposition for each waste stream (reported under “Life-Cycle Waste Management”).

WM-DO then reviews, edits, and forwards the RWMB to the DOE Field Element Manager for review and approval. WM-DO monitors compliance and is responsible for reporting the status of compliance to the DOE Field Element Manager. If WM-DO detects radioactive waste activities that were not included in the RWMB, WM-DO will notify the FOD or RLM to submit an updated [RWMB](#) with a description of the newly identified activities. DOE will not approve radioactive waste management activities that were not included in the RWMB, and may terminate the activities if not reported.

WM-DO may allow facilities to generate radioactive waste without continuous updates to the RWMB, e.g., remedial projects, superfund projects, etc., so long as

- the facilities (1) are performing work in accordance with [EP-DIR-SOP-10021](#), *Characterization and Management of Environmental Programs Waste* and (2) have provided WM-DO a completed and signed Waste Characterization Strategy Form (WCSF); and
- WM-DO has approved the work being performed at the facility and DOE concurrence has been obtained by WM-DO.

3.4.3.a Storage Extension Requests

If a determination is made that radioactive waste cannot be shipped for final disposition within one year of waste generation, the FOD or RLM (or Facility Point of Contact) must submit a request for storage extension to WM-DO at least three months before exceeding the one year expiration of the date the container was sealed. The storage extension request must be submitted by e-mail an updated RWMB that contains

- a checked box, “Extension Request;”
- a specific description of the waste;
- a specific description of the location of the waste;
- the specific length of time it will take to dispose of the waste; and
- the reason the extension is needed.

After reviewing the request, WM-DO will send a letter to the DOE Field Element Manager at least 60 days prior to the storage expiration requesting DOE approval for continued storage. If DOE approval has not been received and the waste is nearing the storage expiration, the Waste Generator must notify [WM-DO](#) via e-mail at least three days prior to the expiration date that DOE approval has not been received. If approval for extension is not granted, DOE will provide direction back to WM-DO.

Note: If WM-DO discovers that an extension request was never submitted, WM-DO will initiate a PFITS issue in accordance with [P322-4](#), *Laboratory Performance Feedback and Improvement Process*.

3.4.4 Processing Waste at Treatment and Storage Facilities (TSFs)

Waste processing at TSFs is conducted within storage units and includes all activities that require opening of a container after it has been characterized and sealed, including but not limited to sorting, segregating, repacking, and resizing of waste. TSFs cannot engage in any sorting, segregating, repackaging, or resizing activities that involve the addition of any new material (e.g., sorbents, inert materials, secondary waste) or an activity that could potentially change the chemical or physical composition of the waste (i.e., that could constitute “waste treatment”). These activities at TSFs must be described in the [LANL Hazardous Waste Facility Permit](#) or a permit modification is required. If processing will require a change to the physical, chemical or biological character or composition of the waste, or any secondary material will be added to the waste, a permit modification may be required and Environmental Protection-Compliance Programs ([ENV-CP](#)) must be contacted via e-mail. Waste processing activities are conducted in the areas outlined in [ADESH-TOOL-810](#), *Waste Processing at Permitted Units*.

3.4.5 Treating Waste

Waste Generators and TSFs cannot engage in waste “treatment” activities unless one of two conditions exist

- the waste treatment is authorized under the [LANL Hazardous Waste Facility Permit](#); or
- the waste treatment is exempt from permitting requirements.

Waste treatment, as broadly defined, includes “any method ... or process ... designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste nonhazardous; less hazardous; (or) safer to transport, store, or dispose of” ([40 CFR Section 260.10](#), *Hazardous Waste Management System: General, Definitions*). Waste treatment may be conducted under the [LANL Hazardous Waste Facility Permit](#) or interim status documents as outlined in the following:

- [ADESH-TOOL-903](#), *TA-55 Storage in Tanks and Treatment by Stabilization*;
- [ADESH-TOOL-904](#), *Treatment by Open Burning*; and
- [ADESH-TOOL-905](#), *Treatment by Open Detonation*.

All LANL workers and subcontractors must contact ENV-CP prior to engaging in an activity that may constitute waste treatment (e.g., addition of sorbents or evaporation). Requirements for other permit exempted treatment that do not have specific location requirements (i.e., Waste Generator areas or TSFs), are found in [ADESH-TOOL-901](#), *Elementary Neutralization* and [ADESH-TOOL-902](#), *Absorption without a Permit*.

3.5 Shipping Waste

Once the waste is ready for shipment, the Waste Generator must contact the [WCO](#), who serves as the LANL Point of Contact for the off-site receiving facility and the Los Alamos Field Office. The WCO reviews the appropriate documentation pertaining to the off-site receiving facility and/or the Los Alamos Field Office, such as the TSDF waste profiles, DOE profiles, subcontracts, etc.

3.5.1 **Shipments of Radioactive Waste to Non-Department of Energy (DOE) Treatment, Storage, and/or Disposal Facilities (TSDFs)**

If a Waste Generator would like to send waste to a facility that is not owned or operated by DOE, the Laboratory must obtain an “exemption request for direct off-site shipment of Radioactive Waste to Non-DOE and TSDFs” (DOE O 435.1 Exemption Request). To obtain this exemption, the Waste Generator must send an e-mail to [WM-DO](#) identifying

- the specific waste stream with background description (including radioactivity);
- the exact location and volume of waste to be generated or placed in a container; and
- the length of time needed to complete the project’s waste disposition.

WM-DO reviews the e-mail and coordinates the shipment with appropriate LANL workers, organizations and subcontractors. WM-DO and LANL’s shipping subcontractor prepare the DOE O 435.1 Exemption Request, which includes a cost analysis and description of the Waste Generator’s request. WM-DO then submits the final DOE O 435.1 Exemption Request to the DOE Los Alamos Field Office.

The DOE Los Alamos Field Office will review WM-DO’s submittal and evaluate the request. If approved, the DOE Los Alamos Field Office will forward the request to DOE Headquarters. WM-DO will be notified if the request has been approved by DOE. If notification is not received within 15 working days from WM-DO’s submittal to the DOE Los Alamos Field Office, WM-DO will contact the DOE Los Alamos Field Office for a documented response.

3.6 **Disposing Waste**

LANL does not have on-site disposal capacity for RCRA, TRU, or MLLW wastes. LANL retains limited capacity for on-site disposal for LLW under special circumstances and with prior approval from [WM-DO](#). WM-DO will determine the optimal disposal path for each waste stream in consultation with its disposal subcontractor(s) and DOE and based on a cost benefit analysis of available options. Primary consideration will be given to off-site DOE TSDFs, commercial TSDFs approved by DOE, and on-site disposal respectively.

All waste shipments (on-site and off-site) must be coordinated through [WM-DO](#). This process supports waste certification to final TSDF destination.

3.7 **LANL’s Oversight of Waste Management**

Compliance oversight at LANL occurs throughout the life-cycle of waste planning, minimization, generation, characterization, accumulation, packaging, management and disposition. ENV-CP provides guidance on DOE Directives and State Regulatory requirements. Waste management operations, including waste certification, are conducted by WM-DO to meet additional requirements from DOE Directives. Internal assessments and external inspections are performed to ensure institutional waste management compliance is met and waste certification is maintained.

3.7.1 **Certification Assessments for All Waste Types**

To certify that facility waste operations are in accordance with [WM-PROG-QP-250](#), *Radioactive Waste Facility Certification*, and [ADESH-TOOL-300](#), *General Radioactive Waste Management*, WM-DO performs compliance assessments at a facility level against [DOE O 435.1](#), *Radioactive Waste Management*, [DOE M 435.1](#), *Radioactive Waste Management Manual*, RCRA regulations, and this document. These assessments are documented in an Independent Assessment report in

accordance with [P328-2](#), *Independent Assessment*, and distributed to the FOD, RLM and participants after the assessment has been completed.

Assessments include, but are not limited to

- an effectiveness evaluation to determine the nature of any pre-existing problems. When pre-existing problems are found, the assessment team reviews corrective actions that have been taken and determines whether the corrective actions are effective for continuous quality improvement;
- an evaluation of registered waste areas for waste certification compliance. RCRA corrective actions and opportunities for improvement must be reported to Environmental ENV-CP;
- an inspection of the registered waste area and review of the inspection records;
- a tracking and review of past corrective actions resulting from independent assessments conducted by other LANL organizations, DOE, or their contractors, if possible and;
- a review of nonconformance and corrective action documentation and, when appropriate, an action plan to periodically monitor facilities to ensure appropriate corrective actions are being taken.

WM-DO must notify the FOD and RLM in advance of upcoming site visits and assessments. Registered waste area information will be recorded and tracked in a database managed by ADESH.

3.7.2 LANL Self-Assessment

DOE and NMED expect LANL to assess compliance of the Waste Generator's waste management activities and TSF permit compliance. Waste Generator assessments include but are not limited to, accumulation and registered waste areas, LANL inspection forms, containers or tanks, labels, time limits, worker health and safety practices, and the Waste Generator's records and training records. Compliance evaluations routinely include sites outside registered areas (see the ADESH-FSD for requirements on various registered waste areas including TSF requirements). Assessments of registered waste areas are performed by WM-DO and ENV-CP in addition to periodic Independent Assessments (see [P328-2](#), *Independent Assessment*) and Management Assessments (see [P328-3](#), *Management Assessment*).

Waste Generators and TSFs must retain waste documents and records in accordance with [PD1020](#), *Document Control and Records Management*.

3.8 Waste Certification

The LANL Waste Certification Program was developed, documented and implemented to ensure that the waste acceptance requirements of off-site facilities receiving waste for storage, treatment, and disposal are met. LANL waste management components that are provided complex wide support waste certification.

Waste certification is a process by which a Waste Generator affirms that waste meets the waste acceptance criteria of the off-site facility to which the Waste Generator intends to transfer the waste for treatment, storage, and disposal. As such, LANL's Waste Certification Program includes the waste certifying process from generation to disposition (cradle-to-grave) for all regulated wastes. Identifying, characterizing and recharacterizing waste with consideration for associated hazards and signing the WSP certification statement is conducted by the Waste Generator and WMC. Assuring compliance performance includes waste verification, storage certification, packaging certification, data management, and STP and RWMB reporting. Finally, preparing waste for shipment, disposal acceptance, final disposition and on-going assessments completes LANL's Waste Certification Program.

Waste certification includes WM-DO providing oversight of Waste Generator activities to meet the requirements of this document and the waste acceptance criteria of the receiving TSDF. LANL's Waste Certification Program includes compliance for all waste types. Fig. 2 illustrates key components of LANL's Waste Certification Program.



Fig. 2. Key components of the LANL Waste Certification Program

4.0 RESPONSIBILITIES

4.1 Facility Operations Director (FOD)

- If needed, issues local-level procedures for waste management activities in accordance with Section 3.1.
- Routes local level procedures through review and approval process adopted by WM-DO.
- Ensures completion and management of their facility's *Radioactive Waste Management Basis Report* (RWMB [Form 2107](#), *Radioactive Waste Management Basis Report Form*).

4.2 Responsible Line Manager (RLM)

- Participates and encourages others' participation in WM-DO's assessment for facility certification.
- Assists in the management and implementation of corrective actions, findings and opportunities for improvement regarding their facilities.
- Ensures waste management compliance at their facilities.

4.3 Waste Management Division Leader

- Ensures waste management compliance processes are implemented across the Laboratory.
- Ensures waste management oversight processes are implemented.

- Acknowledges the process by which local waste management procedures are reviewed and approved before they are issued or implemented.
- Initiates the review of waste characterization documentation by subject matter experts when new information or discrepancies in waste characterization are discovered.
- Monitors work in progress and conducts effectiveness evaluations (i.e., through facility assessment and waste verification).
- Documents compliance or noncompliance with characterization/certification requirements.
- Identifies the facility's waste management quality assurance program and how it protects waste certification and the proposed disposition for each waste stream.
- Performs re-evaluation and verification of characterization information for facilities' waste generation operations.
- Evaluates corrective actions regarding waste management as timely or untimely.
- Reports corrective action regarding waste management adequacy to management.
- Provides notification to facility RLMs of the status and performance of activities under assessment.
- Documents facility waste certification reviews resulting from internal (e.g., Authorization Authority) or external (e.g., DOE) audits and assessments, tracking corrective actions and reporting observations to management.
- Determines whether waste management staging/storage facilities and systems are adequate to certify waste and to maintain waste certification until shipment.
- Ensures LLW/MLLW waste containers are certified by a qualified Waste Package Certifier (WPC).
- Completes receiving facility documentation and notifications for LANL.
- Maintains LANL facility operations certification and off-site receiving facility certification.
- Provides WCO disposition approval for final TSDF destination.
- Performs LANL Self Assessments of radioactive waste staging and storage areas in accordance with Section 3.7.2.
- Ensures that the WCO and designees certify waste for disposition to off-site TSDFs.
- Performs annual verification of the waste characterization of one percent of the total number of hazardous waste streams characterized solely by acceptable knowledge and managed at TA-54 in the previous calendar year.
- Provides notification and reporting to regulatory oversight bodies.
- Provides WMC qualification training.

4.4 Waste Management Coordinators (WMCs)

- Certify waste for storage in LANL's registered storage areas.
- Verify waste containers or tanks meet the requirements for transfer into storage at their facility or verify waste can be transferred to a TSF or TSDF.

- Ensure waste characterization and acceptable knowledge documentation is accurate, defensible, and complete.
- Ensure waste meets accepting facility WAC and follows the ADESH-FSD processes.
- Ensure the WSP is completed and submitted in WCATS.
- Support Waste Generators in internal assessments and external inspections.
- Ensure waste containers are closed in accordance with manufacturer's instructions prior to shipment.
- Ensure waste container or tank is adequate to protect the waste against external sources of contamination, and ensure waste management integrity and compatibility.

4.5 Environmental Protection - Compliance Programs (ENV-CP) Group Leader

- Directs the waste management compliance process.
- Coordinates information and compliance requests and activities with regulators.
- Manages the ADESH-FSD collection.
- Receives information on RCRA corrective actions and opportunities for improvement from WM-DO's assessment of facility certification.
- Ensures that LANL Self Assessments in accordance with Section 3.7.2 are performed.
- Assists WM-DO by providing regulatory information and institutional guidance on waste management requirements.
- Maintains the [LANL Hazardous Waste Facility Permit](#) and is responsible for developing permit modification requests.

4.6 Waste Generators

- Comply with the requirements in this document and other requirements documents referenced herein.
- Characterize waste pursuant to the requirements in this document and the ADESH-FSDs.
- Before waste is generated and/or packaged, conduct waste avoidance or minimization analysis in consultation with the WMC.
- Ensure adequacy of the documentation used for waste characterization (acceptable knowledge and physical/chemical analysis).
- Maintain registered waste areas within their span of control.
- Manage on-site storage as required in this document.
- Initiate the WSP.
- Notify the [STP Manager](#) via e-mail, at least three months prior to the waste exceeding its 1-year accumulation start date that their waste must be added to the STP.

5.0 IMPLEMENTATION

The requirements in this document are effective on the issue date. All ADESH FSDs that are referenced in this document will be reviewed and updated by December 31, 2015, in accordance with [ADESH-AP-007](#), *Document Control* and [PD311](#), *Requirements System and Hierarchy*. The FSDs will be reviewed and updated on a three year schedule beginning with the issue date of P409, Rev.5.

6.0 TRAINING

The training courses listed in this section are required for all workers who generate waste (except office trash) and workers who manage waste or work at TSFs. Workers must notify their managers of expired training. Unless specified, there is no grace period for the training requirements below; this training must be completed and kept current.

Note: Site-specific training may be required and directed by RLMs.

6.1 Waste Generators and WMCs must complete:

- [Course #23263](#), *Waste Generation Overview Live*; and
- [Course #21464](#), *Waste Generation Overview Refresher SS*, every three years.

6.2 Persons who work in, or are owners of, less-than-90-day waste accumulation areas must complete:

- [Course #7488](#), *RCRA Personnel Training*, and
- [Course #28582](#), *RCRA Refresher (Self-Study)*, every twelve months.

Note: The RCRA-related training listed above must be completed within six months of employment or new assignment; during this period, workers must work under the supervision of a trained worker.

6.3 Persons who work in TSFs must complete:

- [Course #7488](#), *RCRA Personnel Training*;
- [Course #28582](#), *RCRA Refresher (Self-Study)*, every twelve months; and
- [Course #23263](#), *Waste Generation Overview Live*.

Note: The RCRA-related training listed above must be completed within six months of employment; during this period, workers must work under the supervision of a trained worker.

6.4 Remediation Workers must complete:

- [Course #23263](#), *Waste Generation Overview Live*;
 - [Course #4464](#), *HAZWOPER: General Site Worker*, or [Course #4465](#), *HAZWOPER: Limited Site Worker*;
 - [Course #28652](#), *HAZWOPER: Refresher*, every twelve months;
 - [Course #7488](#), *RCRA Personnel Training*;
 - [Course #28582](#), *RCRA Refresher (Self-Study)*, every twelve months; and
- or other courses as assigned by the supervisor.

7.0 EXCEPTION OR VARIANCE

Changes in the processes conducted at the TSF or changes to the TSF structure must be reviewed by ENV-CP for necessary permit modifications. Hazardous waste treatment activities that are not authorized by the [LANL Hazardous Waste Facility Permit](#) or interim status documents must be reviewed by ENV-CP for regulatory compliance.

8.0 DOCUMENTS AND RECORDS

8.1 Office of Record

The Policy Office is the Laboratory Office of Record for this Institutional Document and maintains the administrative record.

8.2 Waste Management Records

WM-DO and ENV-CP work with Waste Generators, FODs and RLMs to ensure that the following records and documentation are kept in accordance with [PD1020](#), *Document Control and Records Management*:

- WCATS for waste characterization
- [Form 2107](#), *Radioactive Waste Management Basis Report Form*
- *RWMB Storage Extension Request*
- DOE O 435.1, *Exemption Request*
- STP plan and correspondence to and from NMED
- Independent Assessment Reports
- Trend analysis on waste management data
- ADESH database containing [Registered Waste Area](#) information
- Inspection Forms

9.0 DEFINITIONS AND ACRONYMS

9.1 Definitions

See LANL [Definition of Terms](#) and [ADESH-TOOL-101](#), *Waste Management Glossary*.

9.2 Acronyms

See LANL [Acronym Master List](#).

ADESH	Associate Director for Environment, Safety, and Health
AP	Administrative Procedures
DEAR	Department of Energy Acquisition Regulation
DOE	Department of Energy
DOT	Department of Transportation
ENV-CP	Environmental Protection-Compliance Programs
EPA	Environmental Protection Agency
ER	Environmental Restoration
FOD	Facility Operations Director
FSD	Functional Series Documents
IA	Issuing Authority
LANL	Los Alamos National Laboratory
LLW	Low-Level Waste
M	Manual
MLLW	Mixed Low-Level Waste

MSDSs	Material Safety Data Sheets
MTRU	Mixed Transuranic
NCR	Nonconformance Report
NMED	New Mexico Environment Department
NNSS	Nevada National Security Site
O	Order
OP	Operating Tools
PFITS	Performance Feedback and Improvement Tracking System
PRID	Permits and Requirements Identification
PM	Project Management
RCRA	Resource Conservation and Recovery Act
RLM	Responsible Line Manager
RM	Responsible Manager
RO	Responsible Office
RWMB	Radioactive Waste Management Basis
SBP	Safety Basis Procedure
SOP	Standard Operating Procedure
STP	Site Treatment Plan
TP	Technical Procedure
TRU	Transuranic
TSCA	Toxic Substances Control Act
TSDF	Treatment, Storage, and/or Disposal Facility
TSFs	Treatment Storage Facilities
WAC	Waste Acceptance Criteria
WAP	Waste Analysis Plan
WCATS	Waste Compliance and Tracking System
WCO	Waste Certification Official
WCSF	Waste Characterization Strategy Form
WSP	Waste Stream Profile
WM	Waste Management
WMC	Waste Management Coordinator
WM-DO	Waste Management-Division Office

10.0 HISTORY

Revision History		
03/27/08	P409, Rev. 0	<p>Initial Issue.</p> <p>This document and its linked Waste Management Tools replaces and cancels the Laboratory Implementation Requirements (LIRs) and Laboratory Implementation Guidance (LIG) listed below. The LIRs will remain in force and effect for each nuclear facility until that facility completes the Unreviewed Safety Question (USQ) or Unreviewed Safety Issue (USI) review determinations.</p> <ul style="list-style-type: none"> ▪ LIG 404-00-02, <i>Acceptable Knowledge Guidance</i>

Revision History		
		<ul style="list-style-type: none"> ▪ LIR 404-00-02, <i>General Waste Management Requirements</i> ▪ LIR 404-00-03, <i>Hazardous and Mixed Waste Requirements</i> ▪ LIR 404-00-04, <i>Managing Solid Waste</i> ▪ LIR 404-00-05, <i>Managing Radioactive Waste</i> ▪ LIR 404-00-06, <i>Managing Polychlorinated Biphenyls</i>
05/22/08	P409, Rev. 1	Section 6.0 Training: Changed Waste Profile Form Signers to Waste Generators and removed Waste Documentation Forms from the Waste Generators list.
06/04/10	P409, Rev. 2	Extensive revision: Clarified training requirements and responsibilities, corrected links to tools, clarified tool creation process, and simplified the document.
03/19/12	P409, Rev. 3	<p>This document cancels RN0808, <i>Requirements for Recycling Metal from Areas posted for Radiological Hazards</i>.</p> <p>Section 6.0: Separated the third bullet into two bullets, reflecting the separate training requirements for persons who work in Treatment, Storage, and/or Disposal Facilities (TSDFs) and Remediation Workers, to align with the Laboratory's Hazardous Waste Permit. Added Course #23263, <i>Waste Generation Overview Live</i>, as a training requirement for persons who work in TSDFs and Remediation Workers.</p>
04/10/13	P409, Rev. 4	<p>Removed references to cancelled Form 1346, <i>Waste Profile Form</i>, which has been replaced by the Waste Stream Profile (found in the Waste Compliance and Tracking System (WCATS)).</p> <p>Section 5.0: Updated to reflect effective date of May 28, 2013 for applicable nuclear, high- and moderate-hazard facilities and accelerators.</p> <p>Performed three year review in accordance with PD311, <i>Requirements System and Hierarchy</i>.</p> <p>Updated links, titles, and acronyms.</p>
07/30/15	P409, Rev. 5	<p>Performed three-year review in accordance with PD311, <i>Requirements System and Hierarchy</i>.</p> <p>This document cancels P930-2, <i>Radioactive Waste Certification Program</i> and P930-3, <i>Off-Site Shipment of Chemical, Hazardous, or Radioactive Waste</i>. Although this is not “a new document,” it is a complete re-write of P409, Rev. 4 as the requirements from P930-2 have been merged with this document. P409 title has also changed to “LANL Waste Management.”</p>

11.0 REFERENCES

[Prime Contract:](#)

- DEAR 970.5223-1, Integration of Environment, Safety, and Health into Work Planning and Execution (Dec. 2000)
- Part II, Section H-83 (DEAR 5223-1)
- Part III, Section J, Appendix B 4.2

LANL

P409, Rev. 5

Effective Date: 07/30/15

- Part III, Section J, Appendix G
- Appendix B, Statement of Work: §1.0 General
- [DOE O 435.1](#), *Radioactive Waste Management*
- [DOE M 435.1-1](#), *Radioactive Waste Management Manual*
- [DOE O 436.1](#), *Departmental Sustainability*
- [40 CFR Section 260.10](#), *Hazardous Waste Management System: General, Definitions*
- [DOE O 458.1](#), *Radiation Protection of the Public and the Environment*

11.1 Other References

- [LANL Hazardous Waste Facility Permit](#)
- [P930-1](#), *LANL Waste Acceptance Criteria*
- [Resource Conservation and Recovery Act \(RCRA\)](#)
- [Toxic Substances Control Act \(TSCA\)](#)
- [New Mexico Special Waste Act](#)
- [74-9-1 NMSA 1978](#), *Solid Waste Act*
- [74-4-1 NMSA 1978](#), *Hazardous Waste Act*
- [PD311](#), *Requirements System and Hierarchy*
- [ADESH-AP-007](#), *Document Control*
- [SBP-112-3-R1.2](#), *Unreviewed Safety Question (USQ) Process*
- [P315](#), *Conduct of Operations Manual*
- [ADESH-TOOL-213](#), *No Owner Waste*
- [ADESH-TOOL-114](#), *Office Waste Tool*
- [ADESH-TOOL-111](#), *Waste Characterization*
- [ADESH-TOOL-314](#), *Radioactive Characterization*
- [PD400](#), *Environmental Protection*
- [Waste Compliance and Tracking System \(WCATS\)](#)
- [ADESH-TOOL-306](#), *Potentially Radioactive or Mixed Investigation-Derived Waste*
- [P411](#), *Authorized Release Limits Proposal Process*
- [RP-SOP-077.004](#), *LANSCE Metals Clearance Process*
- [RP-SVS-RIC-TBD-03](#), *Technical Basis Documentation Regarding Health Physics Measurements for the Unrestricted Release of Metals from LANSCE*
- [WM-PROG-QP-236](#), *Waste Certification Program Waste Verification*

- [ADESH-TOOL-600](#), Certification, Documentation, Shipment of ChemHaz
- [ADESH-TOOL-206](#), Hazardous Waste
- [300 Series Tools](#), (Radioactive Waste)
- [400 Series Tools](#), (Universal Waste)
- [500 Series Tools](#), (NM Special Waste)
- [ADESH-TOOL-712](#), Polychlorinated Biphenyl (PCB) Waste
- [ADESH-TOOL-716](#), Used Oil for Recycle
- [800 Series Tools](#), (Treatment, Storage and Disposal Facilities)
- [ADESH-TOOL-300](#), General Radioactive Waste Management
- [EP-DIR-SOP-10021](#), Characterization and Management of Environmental Programs Waste
- [P322-4](#), Laboratory Performance Feedback and Improvement Process
- [ADESH-TOOL-810](#), Waste Processing at Permitted Units
- [ADESH-TOOL-903](#), TA-55 Storage in Tanks and Treatment by Stabilization
- [ADESH-TOOL-904](#), Treatment by Open Burning
- [ADESH-TOOL-905](#), Treatment by Open Detonation
- [ADESH-TOOL-901](#), Elementary Neutralization
- [ADESH-TOOL-902](#), Absorption without a Permit
- [WM-PROG-QP-250](#), Radioactive Waste Facility Certification
- [P328-2](#), Independent Assessment
- [P328-3](#), Management Assessment
- [PD1020](#), Document Control and Records Management
- [PD311](#), Requirements System and Hierarchy
- [ADESH-TOOL-101](#), Waste Management Glossary

12.0 FORMS

[Form 2107](#), Radioactive Waste Management Basis Report Form

13.0 ATTACHMENTS

There are no attachments associated with this document.

14.0 CONTACT

Waste Management Division Office

Telephone: (505) 667-2211

Fax: (505) 667-1945

Website: <http://int.lanl.gov/org/padops/adesh/waste-management/index.shtml>

IMPORTANT

If you wish to receive credit for the preceding document you **must** enter the course through [UTrain](#) **not** the Policy Office website.

Material Safety Data Sheet



Zep Inc.
1310 Seaboard Industrial Blvd.
Atlanta, GA 30318
1-877-I-BUY-ZEP (428-9937)
www.zep.com

Section 1. Chemical Product and Company Identification

Product name E2008 ASPHALT RELEASE (XT-3199)
Product use Asphalt Release Agent
Product code F464
Date of issue 02/13/09 **Supersedes** 06/17/99

Emergency Telephone Numbers

For MSDS Information:

Compliance Services 1-877-I-BUY-ZEP (428-9937)

For Medical Emergency

(877) 541-2016 Toll Free - All Calls Recorded

For Transportation Emergency

CHEMTREC: (800) 424-9300 - All Calls Recorded
In the District of Columbia (202) 483-7616

Prepared By

Compliance Services
1420 Seaboard Industrial Blvd.
Atlanta, GA 30318

Printing date: 02/13/09

Section 2. Hazards Identification

Emergency overview

*Hazard Determination System (HDS): Health, Flammability, Reactivity

CAUTION !



MAY CAUSE EYE IRRITATION.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse effects are lessened by following all prescribed safety precautions, including the use of proper personal protective equipment.

Acute Effects

Routes of Entry

Eye contact.

Eyes

May cause eye irritation. Inflammation of the eye is characterized by redness, watering and itching.

Skin

No known acute effects of this product resulting from skin contact. Prolonged or repeated contact may dry skin and cause irritation.

Inhalation

No known acute effects of this product resulting from inhalation.

Ingestion

No data on acute toxicity of the product when ingested. May irritate digestive tract.

Chronic effects

There is no known chronic effect after exposure to this product.

Carcinogenicity

Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

OSHA's Hazard Communication Standard (29 CFR 1910.1200) does not require the listing of any ingredient for this product.

Section 4. First Aid Measures

Eye Contact

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin Contact

Rinse with plenty of running water. If irritation persists, get medical attention.

Inhalation

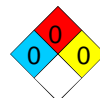
Inhalation not likely under normal use conditions.

Ingestion

Do not induce vomiting unless directed to do so by medical personnel. If swallowed, seek medical advice immediately and show this container or label.

Section 5. Fire Fighting Measures

National Fire Protection Association (U.S.A.)



Flash Point

Not applicable

Flammable Limits

Not applicable

Flammability

Non-combustible.

Fire hazard

Not applicable.

Fire-Fighting Procedures

Not applicable.

Section 6. Accidental Release Measures

Spill Clean up Hazard of slipping on spilled product. Absorb with an inert material and place in an appropriate waste disposal container. Finish cleaning the spill area with running water.

Section 7. Handling and Storage

Handling Avoid contact with eyes. Do not ingest. Wash thoroughly after handling.

Storage Keep container tightly closed. Store between the following temperatures: 40°F - 120°F (4.4°C - 49°C). Keep out of the reach of children. Protect from freezing.

Section 8. Exposure Controls/Personal Protection**Product name****Exposure limits**

No exposure limit value known.

Personal Protective Equipment (PPE)

Eyes Recommended: Safety glasses.



Body No special protective clothing is required. For prolonged or repeated handling, use gloves.

Respiratory No special measures required.

Section 9. Physical and Chemical Properties

Physical State Thin liquid

Color Clear. Colorless.

pH 7.5 - 8.5

Odor Mild.

Boiling Point 104.44°C (220°F)

Vapor Pressure Not determined.

Specific Gravity 1

Vapor Density Not determined.

Solubility Miscible in water.

Evaporation Rate 1 compared with Water

VOC (Consumer) 0 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Incompatibility None known.

Hazardous Polymerization Will not occur.

Hazardous Decomposition Products None identified.

Section 11. Toxicological Information**Acute Toxicity**

Not available.

Section 12. Ecological Information

Environmental Effects No known significant effects or critical hazards.

Aquatic Ecotoxicity

Not available.

Section 13. Disposal Considerations**Waste Information**

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities for additional information.

Waste Stream Non-hazardous waste

Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
DOT Classification	Not regulated.	None.	-	-	
IMDG Class	Not available.	Not available.	Not available.	-	

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

PG* : Packing group

Section 15. Regulatory Information**U.S. Federal Regulations**

SARA 313 toxic chemical notification and release reporting:

No products were found.

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

All Components of this product are listed or exempt from listing on TSCA Inventory.

State Regulations

California Prop 65 No products were found.

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

*NOTE: Hazard Determination System (HDS) ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although these ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HDS ratings are to be used with a fully implemented program to relay the meanings of this scale.

SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN

FOR THE

TA-60 ASPHALT BATCH PLANT

Los Alamos National Laboratory

Los Alamos, New Mexico

Prepared By:

Navarro Research & Engineering
190 Central Park Square, Suite 203
Los Alamos, NM 87544
Phone 505-661-4887

In Conjunction with
Los Alamos National Laboratory (LANL)
ENV-CP

Revision 0: October 2006
Revision 1: February 2009
Revision 2: January 2015

LA-UR-15-20505

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General Requirements Cross Reference

2008 SPCC Rule	Old SPCC Rule	Description of Section	SPCC Section
§ 112.7	§ 112.7	General requirements for SPCC Plans for all facilities and all oil types.	Throughout Plan; Appendix A; General Requirements Cross Reference
112.7(a.1, 2)	§ 112.7	Discussion of Facility's conformance with rule requirements; deviations from Plan requirements; Facility diagram	1.1 Conformance; Appendix G
112.7(a.3.i, iii)	§ 112.7	Facility characteristics that must be described in the Plan	2.0 Asphalt Plant description; 2.3 Secondary Containment; Appendix G
112.7 (a.3.ii, iv, v, vi; a.4; a.5)	§ 112.7	Spill prevention, response and reporting information; emergency procedures.	Section 3.3 Spill Response, Control, and Reporting; Appendix F Spill Tracking Form
§ 112.7(b)	§ 112.7(b)	Fault analysis.	3.1 Spill History; 3.2 Potential Spills; Appendix F
§ 112.7(c)(1)	§ 112.7(c)	Amended scope of classification for Secondary containment; additional preventative systems.	2.0 Asphalt Plant and 2.3 Secondary Containment
§ 112.7(d)	§ 112.7(d)	Contingency planning.	N/A
§ 112.7(e)	§ 112.7(e)(8)	Inspections, tests, and records.	1.3.1 Inspections, 1.3.2 Record keeping; Appendix C
§ 112.7(f)	§ 112.7(e)(10)	Employee training and discharge prevention procedures.	1.3.3 Training; Appendix D
§ 112.7(g)	§ 112.7(e)(9)	Amended Security (excluding oil production facilities) requirements.	2.2 Security
§ 112.7(h)	§ 112.7(e)(4)	Loading/unloading areas (excluding offshore facilities) redefined as "racks".	2.5 Facility Transfer Operations; 2.6 Facility Loading and Unloading
§ 112.7(i)	N/A	Brittle fracture evaluation requirements.	1.1 Conformance; 1.3.1 Inspections
§ 112.7(j)	§ 112.7(e)	Conformance with State requirements.	1.1 Conformance
§ 112.8 § 112.12	§ 112.7(e)(1)	Requirements for onshore facilities (excluding production facilities).	Throughout Plan
§ 112.8(a) § 112.12(a)	N/A	General and specific requirements.	Throughout Plan
§ 112.8(b); (c4, 5, 11) § 112.12(b); (c4, 5, 11)	§ 112.7(e)(1)	Facility drainage.	2.7 Facility Drainage and 2.3 Secondary Containment
112.8(c.1, 2, 4, 5, & 11) 112.12(c.1, 2, 4, 5, & 11)	§ 112.7(e)(2)	Bulk storage containers.	2.0 Asphalt Plant Tanks; 2.3 Secondary Containment; 2.5 Facility Transfer Operations; Appendix G
112.8(c.3) 112.12(c.3)	§ 112.7(e)(2)	Bulk storage containers.	2.3 Secondary Containment; 2.7 Drainage
112.8(c.6 & 10) 112.12(c.6 & 10)	§ 112.7(e)(2)	Bulk storage containers.	2.4 Fail-Safe Engineering
112.8(c.9) 112.12(c.9)	§ 112.7(e)(2)	Bulk storage containers.	2.1 Tank and Secondary Containment Description
112.8(c.9) 112.12(c.9)	§ 112.7(e)(2)	Bulk storage containers.	N/A

112.8(d.1) 112.12(d.1)	§ 112.7(e)(3)	Facility transfer operations, pumping, and facility process.	2.1, Tank and Secondary Containment Description, 2.3 Facility Transfer Operations
112.8(d.3 & 5) 112.12(d.3 & 5)	§ 112.7(e)(3)	Facility transfer operations, pumping, and facility process.	2.3 Facility Transfer Operations
112.8(d.4) 112.12(c.4)	§ 112.7(e)(3)	Facility transfer operations, pumping, and facility process.	1.3.1 Inspections
§ 112.9, § 112.13	§ 112.7(e)(5)	Requirements for onshore production facilities.	N/A
§ 112.10 § 112.14	§ 112.7(e)(6)	Requirements for onshore oil drilling and workover facilities.	N/A
§ 112.11 § 112.15	§ 112.7(e)(7)	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

Shellie Winsemius
Registered Professional Engineer
New Mexico License No. 17888

Date: _____

1-29-2015



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 Approval:

Approved by: 

Andrew Erickson
Utility and Infrastructure Facility
Operations Director
Los Alamos National Laboratory

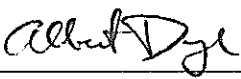
Date: 2-11-15

*Approved w/ changes
on page #2*

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 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 do not need to be 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 & Stamped (yes/no)
January 2009		Mark Haagenstad	SPCC Coordinator, ENV- CP	Yes; Yes stamped
March 2014		Albert Dye	SPCC Coordinator, ENV- CP	Yes/ No
January 2015		Albert Dye	SPCC Coordinator, ENV- CP	Yes; Yes stamped

1. INTRODUCTION

The Spill Prevention Control and Countermeasure (SPCC) Plan is a requirement of the Environmental Protection Agency (EPA) Oil Pollution Prevention Regulation. This Plan has been revised to comply with requirements of the regulations published in August 2002 and all Amendments. 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 55 gallons or greater, maintain and implement 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.

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 organization. The Facility Operations Director (FOD) or the facility tenant with approval from LANL Environmental Compliance Programs (ENV-CP), develops, implements, and maintains SPCC Plans for the specific SPCC location(s) within their stewardship.

This SPCC Plan addresses the storage of oil and oil emulsion in tanks located at Technical Area (TA)-60 Asphalt Batch Plant (referred to as the Facility), located within the LANL boundary at the east end of Sigma Mesa.

1.1. Conformance

This SPCC Plan and facility conform to the requirements of 40 CFR Part 112 to the fullest extent possible. The facility has appropriate spill prevention, reporting, and response measures; tanks and secondary containment are appropriate for the materials stored, and there is adequate security. Procedures for inspections, testing, loading and unloading, record keeping, spill response, and training have been developed. LANL's five step Integrated Safety Management approach (http://int.lanl.gov/safety/integrated_work_management/index.shtml), which evaluates a task and identifies potential hazards such as a spill event also is applied to this Facility.

Deviations from regulatory requirements include:

- Integrity testing of the 15,000 gallon tank holding asphalt cement is not being done in lieu of application of inspection criteria outlined in STI SP-001-06 (Section 1.3.1, Inspections), and
- The capacity of the secondary containment below the tanks will not hold the entire contents of the 15,000 gallon asphalt cement tank, nor would it need to. Asphalt cement is highly viscous and solidifies when its temperature decreases therefore leaks would be noticed during daily inspections and could be addressed immediately. Backup containment (sedimentation pond, Appendix G) has also been provided.

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. The tanks are excluded from the NMED Petroleum Storage Tank Regulations (NMAC 20.5.1.7.R(4)(b)) requiring registration.

A signed Certification of the Applicability of Substantial Harm Criteria is located in Appendix A. A self-selection process outlined in Section 112.3 of 40 CFR 112 was applied and it was determined that the facility does not fall under the "substantial harm" category. Therefore the facility is not required to prepare and submit a Facility Response Plan.

1.2. Facility Owner & Operator

The TA-60 Asphalt Batch Plant storage tanks and associated equipment is ~~owned~~ by the LANL Logistics Operations (LOG-DO) Division and ~~operated~~ by the Utilities & Institutional Facilities (UIF) – Facilities Operations Division (FOD). The owner and operator for the facility are:

Facility Owner/Operator

~~Logistics (LOG) Division~~
~~Heavy Equipment/Roads & Grounds (LOG-HERG) Group~~
Los Alamos National Security LLC (LANS)
Los Alamos National Laboratory
Los Alamos, NM 87545

Contacts

Name	Phone	Title
Andrew W. Erickson	667-4222	UI-DO Facility Operation Director
Tim Walker-Foster	667-5177	LOG-HERG Group Leader
Phil Romero	667-8332	UI-DO Environment, Safety & Health Manager
Leonard F. Sandoval	667-3557	DSESH-UIMS Deployed Environmental Professional

1.3. Management Responsibilities

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
Inspections	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	
	Provide qualified personnel to perform and write monthly SPCC walk around inspections		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

<i>Plan Amendment</i>	<i>Provide information on changes to design, construction, operation or maintenance</i>	X	X
	<i>Amend Plan when spill or other change in facility occurs</i>	X	
	<i>Implement changes to plan within 6 months of change to facility</i>		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	Deployed Environmental Professional
Annual SPCC	Annual	Water Quality (ENV-CP)
Certified	Not Applicable	N/A
Brittle Failure	Not applicable	N/A

Various inspections are conducted at the units. These inspections include a daily inspection (checklist 41-20-001.1 R0) performed by the principal operator, monthly walk-around inspection by the Deployed Environmental Professional (DEP) and an annual ENV-CP SPCC walk-around inspection. Records of each inspection are kept as described in Section 1.3.2 (Record Keeping) or in another appropriate folder or box. Completed Inspection Reports are filed as part of this SPCC Plan in Appendix B. Daily inspection checklists are kept in a separate binder. A sample of the daily inspection checklist, 41-20-001.1 R0, is included in Appendix B. All of this information is kept in the Principal Operator's trailer located at the facility.

In the event that a problem or concern is identified during an inspection or checklist walk-around, the inspector documents the deficiency or concern on the applicable form. All corrective actions should be planned, implemented and documented. The FOD or his representative would be directly involved with implementing these corrective actions. A record of the Corrective Actions will be kept in Appendix B. All identified leaks or problems associated with the units will be promptly corrected, and any oil accumulations will be removed. Records of these types of problems will be kept on file as part of the SPCC plan according to Section 3.1 (Spill History, and recorded in the spill log in Appendix E).

Daily Inspection (Good Housekeeping) Walk-Around Checklist: Asphalt Batch Plant staff conducts a general operator observation daily when the plant is in operation. During normal operations, casual checks of the unit and facility grounds are performed. During these checks, potential problems and maintenance needs for the entire facility are identified, including spills or leaks, obvious problems with tanks, lines or the containment, and general safety conditions at the facility. The tanks should be visually inspected for leaks and general condition as a best management practice for the safe operation of the facility.

These inspections have not been recorded in the past. However, in order to provide clear and concise documentation of what is being inspected daily, a checklist of items inspected as part of good

housekeeping procedures (including daily visual inspection of the tanks) at this facility will be incorporated into Appendix B of this SPCC Plan. The completed checklists are kept in a separate binder.

Monthly Visual Inspection: A monthly walk-around inspection of the facility will be performed by a DEP and a facility representative. The inspection form and inspection reports are filed in Appendix B. The inspection form identifies the inspector, inspection date, and identifies facility areas inspected. As part of these inspections, the tanks are visually inspected for leaks and for physical condition, including but not limited to rust, corrosion, or bulging. The secondary containment area(s) are inspected to determine if any leaks or spills have occurred, to ensure that the containment is free of storm water, to ensure that there are no physical defects in the containment that could cause it to fail, and to ensure that the containment drain valve is in good condition and locked. Leaks or potential problems will be brought to the attention of the Principal Operator and steps to address these problems through corrective action will be discussed. The inspector will sign the inspection form and place it in Appendix B in a timely manner. The monthly inspection form will be modified if changes in the SPCC regulations are not reflected in the current version.

Annual Inspections: ENV-CP staff performs annual SPCC inspections to access compliance with all aspects of the SPCC Plan including but not limited to recordkeeping, changes to the facility, the condition of the tank, piping and associated equipment, and the secondary containment unit. This inspection also covers all requirements of the SPCC regulations and the Steel Tank Institute's STI SP-001-06. An inspection report is sent to the appropriate facility FOD and representatives in a timely manner. Completed annual inspection reports are maintained in Appendix B.

Integrity, Brittle Failure and Catastrophe Inspections: Integrity testing of the 15,000 gallon tank holding asphalt cement is not being done based on the inspection criteria outlined in STI SP-001-06 which allows visual inspection for bulk shop-made storage tanks. If this tank undergoes major repair, alteration, reconstruction, or a change in service that might affect the risk of a discharge or failure due to brittle fracture or other catastrophe, the container will be evaluated for risk of discharge or failure due to brittle fracture or other catastrophe, and appropriate action will be taken.

1.3.2. Record Keeping

The inspections identified in Section 1.3.1 are documented on the applicable forms found within Appendix B. These inspection reports identify the date the inspection was performed, facility structural conditions, identified deficiencies; and contain the signature of the inspector. Completed inspection reports are maintained in Appendix B.

Additional records that will be kept as part of the SPCC plan as they are generated include spill reports, and secondary containment unit storm water discharge records. In the event of a spill, the spill tracking form in Appendix E will be used to describe the spill, corrective action taken, and plans for preventing recurrence. Filled out forms are also maintained in Appendix E. Any discharge of storm water from any of the secondary containment units will be identified through completion of the form in Appendix F. A copy of the completed form will also be sent to ENV-CP and also maintained in Appendix F.

As required by 40 CFR 112.3(e), the SPCC Plan is to be maintained at the facility since the facility is manned at least 4 hours a day. Additionally, inspection procedures, signed inspections, drainage records, and spill reports will be retained as part of this SPCC Plan at the facility for a period of three years. Following completion of the three-year period, the records will be forwarded to the ENV-CP Records Management Team to be retained in accordance with Department of Energy requirements.

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 self-study course is required at least once yearly 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 a request to ENV-CP 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, the Resource Manager, Principle Operator and personnel who conduct re-filling operations.

The FOD or their representative(s) is responsible for ensuring that oil-handling personnel are properly instructed in the operation and maintenance of equipment at this facility to prevent the discharge of oil. Employee training programs must instill in oil-handling personnel, at all levels of responsibility, a complete understanding of the following:

- Contents of facility SPCC Plan
- General facility operations and maintenance of equipment
- The SPCC program
- Procedures for operator observation inspections
- Site safety hazards
- Practices for preventing spills
- Procedures for responding properly and rapidly to spills
- Protocol used to report spills
- Spill events or failures, malfunctioning components, and recently developed precautionary measures
- Additional applicable pollution control laws, rules, and regulations

Oil handling personnel also need to gain an understanding of the goals and objectives of the SPCC program, the individual responsibilities of each involved employee, and discharge procedures by required reading of this SPCC Plan and any additional training/briefings provided by ENV-CP. Prior to the initiation of work, oil-handling personnel also receive LANL HAZCOM training which covers spill prevention, control, and cleanup methods. Spill prevention briefings and information on known spill events or failures is provided to oil handling personnel through the 4003(b) Lessons Learned process or through periodic briefings. Records of training activities and personnel required training are kept in Appendix C.

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 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 inspection forms or the spill 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.

Technical amendments to the SPCC Plan shall not be effective to satisfy the regulatory requirements governing the document unless a Professional Engineer has certified them. Upon completing the required plan amendment, the plan review page located in the front of this document must be signed.

2. FACILITY DESCRIPTION

The TA-60 Asphalt Batch Plant was constructed in 2005 to replace the outdated plant previously located at TA-3. Heating coil oil and asphalt (64-22 oil)/cement are stored in a 115 and 15,000 gallon tanks, respectively. Tanks are constructed of materials compatible with what they hold and sit on the same skid. The 15,000 gallon tank was shop built in 2003 by BDM Engineering of California. The manufacturer did a visual inspection of the seam welds before the tank was shipped to LANL. A review of the inspection criteria outlined in STI-SP-001-06, integrity testing is not required because the exterior of this bulk storage tank is inspected daily as part of a Daily Walk Around Inspection (see inspection checklist in Appendix B) and contains a highly viscous emulsion (asphalt cement) which provides immediate visible evidence of leaking and becomes a semi-solid when exposed to a decrease in temperature.

The tanks and associated piping (there are no buried tanks, piping or transfer stations at the facility) are located within adequate secondary containment. The capacity of the concrete-bermed area is such that it will not completely contain the contents of the asphalt tank. Asphalt cement is highly viscous and will solidify on the pad of the containment as it cools. If it is a significant leak and overflows the containment berm, there should be little to no soil penetration (the surface of the site is covered with basecourse/gravel). Based on these facts, it was deemed during the construction of this facility that it was not necessary to provide additional containment for the asphalt tank volume. Additional containment is also available in the sedimentation pond located down slope of the tank. A Facility Diagram showing the location of the tanks and the sedimentation pond is provided in Appendix G. Jersey barriers surround the tanks to prevent damage from oil delivery trucks or other equipment.

Structures at the facility that contain hot-mix are exempt from the SPCC regulations (Federal Register/vol. 73, No. 235, 12/5/2008, page 74240).



Photograph 1. Looking W towards the TA-60 ABP To the left is the 115 gal. oil tank. In the center is the 15,000 gal. asphalt cement tank. Secondary containment is located below these tanks.



Photograph 2. Close up view of two tanks 115 gal. tank (forefront) and 15,000 gal. asphalt cement tank.

2.1. Asphalt Plant Oil Storage Tanks and Secondary Containment

There are two storage tanks located on a skid within a secondary containment in the southeast corner of the facility. The tank area is free from periodic flooding or washout (see Appendix G for facility diagrams). The first tank contains 115 gallons of heating coil oil, and the second (a 15,000 gallon tank) stores about 13,000 gallons of asphalt cement. The 15,000 gallon tank was shop-built by BDM Engineering of California (1-800-323-6745) in 2003. Both tanks are of materials that are compatible with their contents. Visual inspection of the tank seam weld was performed by the manufacturer before the 15,000 gallon tank was shipped.

The tanks sit on a skid within a concrete foundation with a curb berm that provides secondary containment. Containment is sufficient to hold the contents of the heating coil oil tank, approximately 115 gallons, plus freeboard for precipitation. It will however, not hold the entire contents of the 15,000 gallon tank. (see discussion in Section 2.) The containment is curbed such that it prevents storm water run-on. There are Jersey barriers surrounding the tanks to prevent damage from vehicles.

Asphalt oil in the 15,000 gallon asphalt cement tank is measured using a float gauge. The float gauge is checked for operability during asphalt cement transfers. The tank is mounted to a skid located within an engineer designed secondary containment. All overflows would be contained within the secondary containment.

Additional secondary containment is provided by a sedimentation pond located down slope of the tanks. Location of each containment is illustrated on the site map in Appendix G. Section 3.2 discusses potential spills to and/or from the containments.

Transfer piping and the associated valves are aboveground and associated with the tanks. Piping is readily available for inspection at all times and leaks and spill would be captured by the concrete secondary containment. There are no buried or partially buried tanks.

2.2. Security

TA-60 at Sigma Mesa is presently an access-controlled area. The east end of Sigma Mesa is fenced and has a gate, which is locked when the facility is unattended after 5 PM weekdays and on weekends. Lighting at the facility is adequate to detect potential night spills and to deter vandals.

2.3. Secondary Containment Drainage Operations

A description of all secondary containments is provided in Section 2.1. A cement bermed pad provides secondary containment for this system. Storm Water run-on into the containment is minimized at the perimeter of the pad and is diverted away from the SPCC area.

Storm water precipitation that does accumulate in the 350 square foot secondary containment used for the tanks is usually small and is therefore allowed to evaporate. However, if it is necessary to drain the secondary containment to ensure sufficient storage capacity in the event of a tank leak or spill, drainage will meet federal and state water quality standards prior to discharge. To ensure compliance with these standards, the form located in Appendix F will be used. The completed form will be sent to ENV-CP for confirmation regarding discharge. A record of completed forms will also be filed in Appendix F.

2.4. Facility Transfer Operations

Oil is transferred into the tanks in the containment area from vendor supplied tanker trucks. LANL AST filling procedures are in place and will be used during each filling operation. The Principal Operator will assure that these procedures are used and that any small leaks that occur within the secondary containment will be cleaned up immediately. Emergency Operations-Emergency Management (EO-EM) (667-6211) shall be notified in the event of a spill.

2.5. Facility Loading/Unloading

Petroleum product is delivered to the two oil storage tanks (115 and 15,000 gallons) by an off-site vendor and the oil product is pumped directly into the tanks. The re-fill ports are located on the tanks and the tanks are located within a 350 square foot secondary containment. Jersey barriers surrounding the secondary containment that hold the two tanks prevent possible damage from oil tankers and other heavy equipment that may enter the facility. A spill kit is retained at the facility in case the vendor's oil delivery line drips or leaks. A record of oil refill volumes is maintained in the Principal Operators trailer located at the facility.

2.6. Facility Drainage

The secondary containment is equipped with a 2-inch capped drainpipe to allow controlled draining of the contents. The drain is kept locked with access controlled limited to the Principal Operator. Drainage from the area surrounding the pad is generally down slope to the south towards a sedimentation pond. The direction of storm water flow is depicted in the site map (Appendix G). Storm water from around the pad also travels to the south towards a sedimentation pond (design capacity is for several back-to-back 25-year rain events) associated with the facility MSGP. Should the pond overflow, its contents would flow

towards a swale, then to the edge of the mesa top, to a bench approximately 50 ft. below, and down into the floor of Mortandad Canyon. The canyon has a perennial stream which eventually drains into the Rio Grande.

3. SPILL INFORMATION

3.1. Spill History

Since the facility began operating in 2005 there has been only one spill occurrence. In March 2007, 165 gallons of asphalt cement leaked from part of a weld on the 15,000 gallon asphalt cement tank. The asphalt cement dripped into and was fully contained in the secondary containment located below the 15,000 gallon tank. The cement asphalt slag was cleaned up and properly disposed. The weld was repaired.

One legacy spill identified as a RCRA Solid Waste Management Unit (SWMU) located within the facility boundary. SWMU 60-002 has been identified and investigated as part of the LANL-wide monitoring program for SWMUs. It is considered to have a low potential to impact the quality of storm water flows or discharges from the facility boundary because a base-course berm and a storm water conveyance ditch located between the TA-60 ABP's east boundary and the boundary of this SWMU minimizes the potential for any run-on/runoff on or off the SWMU.

3.2. Potential Spills

Potential spills in the tank area would be the result of a tank failure or loading or unloading accident. Such failures could involve one or both tanks. It is unlikely that an event would involve both tanks simultaneously. In accordance with 40 CFR 112, the secondary containment provides containment for the entire volume of the 115 gal. tank. In addition to the secondary containment a sedimentation basin located 200 feet down slope would also effectively provide adequate containment.

A potential also exists for the release of spills/leaks to occur outside of the containment area during loading and unloading operations from the oil delivery truck. The flow rate of the spilled substance would depend on the size of the leak. A release of this nature would follow the path of storm water and would also be captured by the sedimentation basin.

3.3. Spill Prevention, Response, Control and Reporting

Work at this facility is performed using LANL's five step Integrated Safety Management approach, which evaluates a task and identifies potential hazards such as a spill event to achieve effective spill response training for employees. Personnel involved with facility operations are instructed on safety precautions, initial spill response procedures, and how to use available spill cleanup material. The Deployed Environmental Professional for the facility is the designated person responsible for spill prevention, reporting and maintenance of the spill control equipment at the Facility. ENV-CP is responsible for providing available training programs. In addition to annual training, periodic spill prevention briefings may be conducted by a LANL contractor as necessary to inform operating personnel about spill events or failures, malfunctioning components, recently developed precautionary measures, or other SPCC-related issues.

Spill Control Equipment: A spill kit that contains adequate universal sorbent or spill control pillows to handle minor spills and remove any oil or sheen from storm water collected in the secondary containment or sedimentation pond is located within the Principal Facility Operator's trailer at the facility (see Site Map, Appendix G). The spill kit also contains goggles, gloves, bags, ties, scoop and labels and shovels. Spill control material storage areas shall be inventoried regularly to assure that the proper materials are available in sufficient quantity and of sufficient quality to minimize the spread of oil products in the case of a spill prior to the arrival of response teams.

Spill Responses: All spills require response. Any spills that have the potential to enter a drain or water course, require immediate response and must be reported immediately to the LANL EO-EM office and to ENV-CP.

Small incidental releases (e.g., vehicle oil, grease, fuel drip spots) and spills into the secondary containment will be addressed as part of good housekeeping and be cleaned up and properly disposed as soon as possible (usually on the day the spill was discovered). The cleanup will be conducted by properly trained personnel. It is the responsibility of the FOD to provide access to an appropriate Waste Generator and Waste Management Coordinator who is properly trained to dispose of spill materials.

All other spills will be reported to the Principal Facility Operator who will notify the Facility Manager, who then notifies the Utilities Operations Manager. The Operations Manager is responsible for notifying LANL EO-EM and the FOD. If neither manager is available the principal operator will notify EO-EM directly. The principal operator will address, if no health hazards exists, the cause of the spill and contain as much of the spill as possible until the EO-EM team arrives.

The EO-EM will determine to what level LANL's EO-EM plan will be activated. In addition, appropriate cleanup procedures will be followed and the appropriate individuals or organizations responsible for the completion of appropriate spill reports will be notified.

Spill Contact Information:

If fire or explosion is present, or if the potential for such exists, the situation must be reported by dialing 911 or activating a fire pull box if available at the facility.

LANL 24- hr. Emergency Operations-Emergency Management (EO-EM) Number: 667-6211.

Name	Title	Work	Pager	Cell
Andrew Erickson	FOD, UI-DO	667-4222	664-5913	695-4122
Phil Romero	DSESH-UIMS Manager, UI-DO	667-8332	664-2151	231-1202
Joe Serna	LANL Facility Manager			231-4917
Leslie McReynolds	LANL Principal Facility Operator			231-1124
High Performance Computing D.O.	Duty Officer		664-8947	699-0119
Duty officer pager	UI-DO (24 hour emergency contact)		104-6455	699-7452
Leonard Sandoval	Deployed Environmental Professional DSESH-UIMS	667-3557		231-1235

Spill Reporting: Spill reporting is accomplished through SPCC Plan documentation and EM&R notification and the LANL Water Quality and Hydrology Group, ENV-CP. 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 ISD 322-3 Manual for Communication, Investigation, and Reporting Abnormal Events
<http://policy.lanl.gov/pods/policies.nsf/MainFrameset?ReadForm&DocNum=ISD322-3&FileName=ISD322-3.pdf>.

Definition of the authorities, responsibilities, and duties of all entities involved in oil removal operations:

Authorities	Spill Reporting Responsibilities	Response Duties
Onsite workers	<u>Contact EM&R at 7-6211 or 911</u> if necessary	
Facility Spill Team	Notify DSESH-UIMS Deployed Environmental Professional	Qualified workers may clean up simple/small spills and manage waste per LANL procedures above.
EM&R	If EM&R is notified of a spill event, they will contact all additional applicable parties including ENV-CP	Respond per contingency plan
DSESH-UIMS 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.
ENV-CP Water Quality	Completion of spill reports that are reportable to federal and state agencies. Provide oversight for spill mitigation activities.	Provide information to federal and state agencies.

Appendix A

Certification of the Applicability of the Substantial Harm Criteria

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name: TA-60 Asphalt Batch Plant

Facility Address: Asphalt Batch Plant, TA-60, 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 ☒

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 ☒

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 ☒

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?

Yes ☐ No ☒

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 ☒

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.

Andrew W. Erickson

Name (please type or print)

Andrew Erickson for
Signature
Andrew Erickson

LANL Utility & Infrastructure Facility Operations Director

Title

2-11-15

Date

ENV-CP-QP-007

Revision: 10



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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Derivative Classifier: ☒ **Unclassified** ☐ **DUSA** **ENVPRO**

Name: Gian A. Bacigalupa	Organization: ENV-CP	Signature: Signature on File	Date: 08/31/15
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Approval Signatures:

Subject Matter Expert: Jacob W. Meadows	Organization: ENV-CP, Program Lead	Signature: Signature on File	Date: 08/31/15
Responsible Line Manager: Michael T. Saladen	Organization: ENV-CP, Team Leader	Signature: Signature on File	Date: 08/31/15
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History of Revisions

Document Number <i>[Include revision number, beginning with Revision 0]</i>	Effective Date <i>[Document Control Coordinator inserts effective date]</i>	Description of Changes <i>[List specific changes made since the previous revision]</i>
0	12/98	New Document.
1	06/00	Annual review, added Cerro Grande fire hazards
2	07/01	Annual review
3	06/03	Annual review
4	04/04	Annual review, changes to HCPs
5	02/07	Annual review, changes to reflect organizational restructure
6	07/08	Annual review
7	09/10	Biennial Review and revision
8	04/11	Removed prerequisites, added note re: on-call spill reporting.
9	07/13	Biennial review and revision, implemented new procedure format.
10	09/30/15	Biennial review and revision, implemented new procedure format. Controlled the updated LANL ENV-CP Unplanned Release Report.

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1.0 PURPOSE

This Environmental Protection Division – Compliance Programs Group (ENV-CP) procedure describes processes and implements requirements for spill investigations.

2.0 SCOPE

This procedure applies to all ENV-CP staff and personnel conducting spill investigations.

2.1 HAZARD REVIEW

The work described in this procedure is field work and has a **LOW hazard** rating as documented by submittal of a completed [ENV Low Hazard Verification form](#).

3.0 RESPONSIBILITIES

The following personnel require training before implementing this procedure:

- ENV-CP staff and contract personnel who perform spill response and investigation.

Annual re-training to this procedure is required. Specific training requirements will be updated as needed.

The training method for this procedure is required reading and on-the-job training (OJT). The OJT is to be conducted by a Team Leader or person designated as Subject Matter Expert (SME) by the ENV-CP Group Leader. This training will be documented in accordance with [ENV-DO-QP-115, Personnel Training](#).

Actions specified within this procedure, unless proceeded with “should” or “may,” are to be considered mandatory (i.e., “shall”, “will”, “must”).

3.1 PREREQUISITES

None

4.0 WORK PROCESSES

Responsibility is to assure the immediate mitigation and timely notification of appropriate regulatory organizations in the event of a spill or unplanned discharge that has or may affect the environment. Work requires frequent and unscheduled site visits to any area of the Laboratory during a spill or unplanned release as support staff for the on-scene Security and Emergency Operations (SEO) Incident Commander.

Specific activities associated with Spill Response and Investigation:

- Respond to the spill or unplanned release site;
- Report to the On-Scene SEO Incident Commander and Site Safety Officer;
- Receive site safety requirements;
- Provide decision support;
- Investigate the nature and extent of the spill or unplanned release;

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- 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

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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.

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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.

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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.

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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

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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 | |

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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/>

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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): <input type="checkbox"/> LANS, LLC <input type="checkbox"/> Subcontractor:			
Date of Spill/Date Spill Discovered:					
Location:					
Material Spilled:		<input type="checkbox"/> Anti-freeze/coolant <input type="checkbox"/> Steam Condensate <input type="checkbox"/> Lubricants/oils <input type="checkbox"/> Refrigerant Oil		<input type="checkbox"/> Gasoline <input type="checkbox"/> Other: _____	
<input type="checkbox"/> Hydraulic Fluid <input type="checkbox"/> Potable Water <input type="checkbox"/> Diesel					
Volume Spilled:		Waste Volume Generated:			
Source of Spill: Vehicle ID: _____ Equipment ID: _____		<input type="checkbox"/> Hydraulic Line <input type="checkbox"/> Potable Water Line <input type="checkbox"/> Fire Suppression System <input type="checkbox"/> Fuel Tank		<input type="checkbox"/> Radiator <input type="checkbox"/> Condensate Line <input type="checkbox"/> 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)		<input type="checkbox"/> Floor Drain, if so please indicate affected facility <input type="checkbox"/> Watercourse/drainage area, if so please indicate <input type="checkbox"/> Solid Waste Management Unit/Area of Concern, if so please indicate <input type="checkbox"/> None			
<input type="checkbox"/> RCRA Treatment Storage Disposal Facility <input type="checkbox"/> RCRA Satellite Accumulation Area <input type="checkbox"/> RCRA <90 Day Storage Area					
Did the spill occur inside or outside a building?		<input type="checkbox"/> Inside		<input type="checkbox"/> Outside	
Did the spill occur on: (Check as many as apply)		<input type="checkbox"/> Concrete <input type="checkbox"/> Carpeted Floor <input type="checkbox"/> Tile <input type="checkbox"/> Wooden floor/deck		<input type="checkbox"/> Asphalt <input type="checkbox"/> Graveled/Rocky Area <input type="checkbox"/> Soil/Vegetated Area <input type="checkbox"/> Other: _____	
Samples Collected: <input type="checkbox"/> None <input type="checkbox"/> Water		<input type="checkbox"/> Soil <input type="checkbox"/> Air <input type="checkbox"/> 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:	
				<input type="checkbox"/> Non-Reportable <input type="checkbox"/> Reportable	

No. P322-3

Revision: 4

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Performance Improvement from Abnormal Events

1.0 PURPOSE

This document defines the process for notification and reporting of abnormal events at Los Alamos National Laboratory (LANL or the Laboratory). The abnormal event process is part of the LANL Contractor Assurance System (CAS), and is focused on effectively driving continuous performance improvement from each event. The intent of the investigative and analysis process is to understand and identify causes (both individual and organizational) that contributed to the event so that deficiencies identified can be addressed and corrected. Analyzing events promotes the values and concepts of a learning organization envisioned in the Integrated Safety Management (ISM) Program Feedback and Improvement function. Events that pose an immediate threat to life or property are subject to additional emergency notification requirements. See Section 2.3.

2.0 AUTHORITY AND APPLICABILITY

2.1 Authority

This document is issued under the authority of the Laboratory Director to direct the management and operation of the Laboratory, as delegated to the Contractor Assurance Officer (CAO), as provided in the [Prime Contract](#). This document derives from the Laboratory [Governing Policies](#), particularly the section on Management Systems, and [SD320](#), *Los Alamos National Laboratory Contractor Assurance System Description Document*.

- Issuing Authority (IA): Contractor Assurance Officer (CAO)
- Responsible Manager (RM): Quality and Performance Assurance (QPA) Division Leader
- Responsible Office (RO): Quality and Performance Assurance–Performance Assurance (QPA-PA)

2.2 Applicability

This document applies to all Laboratory workers, including employees of Los Alamos National Security, LLC (LANS), its contractors/subcontractors, students, guests, affiliates, or visitors. This document applies to work-related events onsite, i.e., within the physical boundaries of LANL, and off-site when the workers are (1) in LANL pay status, and (2) working under LANL procedures and requirements. Events involving LANL workers that occur at another Department of Energy (DOE)/National Nuclear Security Administration (NNSA) contractor site and where the work is under that site's procedures and requirements are managed by that site's abnormal event process.

Abnormal events include all abnormal conditions, accidents, incidents, or deviations from the planned outcome of a workplace activity that did or could have adversely affect(ed) health or safety of workers, the public, the environment, or the integrity of LANL programs or facilities.

Roles assigned in this document are based on [P313](#), *Roles, Responsibilities, Authorities, and Accountability*. Key roles are filled by the Facility Operations Directors (FODs) and trained occurrence investigators from QPA-PA who support the FODs. The term FOD in this document refers to individuals in the Nuclear and High-Hazard Operations Directorate (NHHO). However, for events that do not fall within the boundary of an NHHO-managed FOD Unit, institutional program managers may fill the FOD role as defined in [DOE O 232.2](#), *Occurrence Reporting and Processing of Operations Information*. Examples may include the following:

- construction/demolition project managers for events within their project;
- Subject Matter Experts (SMEs), such as managers from Environmental Protection (ENV) for environmental-related notices of violation, Operations Support-Packaging and Transportation (OS-PT) for P&T-related institutional events, and the Safety Basis Office for institutional-related safety basis issues;
- senior management for wildland fires impacting LANL property;
- institutional program owners such as for the beryllium, crane, hoisting and rigging, and electrical safety programs for multi-facility events or events with institutional impact; and
- the Laboratory Director or designee for Team Investigations.

Although programmatic management or SMEs may assume ownership of the event, the local area FOD and/or the Associate Director for Nuclear and High-Hazard Operations (ADNHOO) should be engaged to provide guidance, the infrastructure, and resources necessary to ensure consistent application of the reporting process.

Management authority and responsibility for execution of the abnormal event process are assigned to the FODs. FODs may delegate responsibilities and authorities for the abnormal event process to Operations Managers or Duty Officers. Facility-owning Responsible Associate Directors (RADs) establish their involvement in the process through agreements with the FODs. QPA-PA maintains details of and procedures for the abnormal event process on the [Occurrence Reporting](#) webpage and in the current Functional Series Document (FSD) [QPA-PA-FSD-003](#), *Abnormal Events Handbook*. The FSD describes in detail all the aspects of the LANL abnormal event reporting process, including event discovery, notification, categorization, fact finding, investigation, causal analysis, and final report preparation. Attachment A, *Abnormal Event Categorization Criteria*, of the FSD provides SME guidance (e.g., from health and safety, ENV, Suspect/Counterfeit Items Coordinator [SCIC], Safety Basis, P&T) to assist the FOD/designee with event categorization. The FSD defines the roles and responsibilities for the FODs, occurrence investigators, and the necessary support personnel.

2.3 Precautions and Limitations

Processes related to Operational Emergencies (OEs), security incidents, and the Price-Anderson Amendments Act (PAAA)/Worker Safety and Health (WSH) program are beyond the scope of this document, and in some instances preempt requirements of this document. Examples follow.

Operational Emergencies (OEs). Events requiring emergency response (e.g., explosion, fire, hazardous material release) are subject to categorization, notifications, and response under [PD1200](#), *Emergency Management*, and SEO-DO-PLAN-100, *Hazardous Materials Program Emergency Plan*, available through the Emergency Operations Center at 667-6211, plus any facility-specific emergency management plans and procedures. For the duration of emergency conditions, Security and Emergency Operations (SEO) personnel and procedures take precedence and preempt the requirements of this document.

Workers witnessing or involved in such events must immediately request assistance by calling 911 and/or Security and Emergency Operations-Emergency Management (SEO-EM, 667-6211) as noted in Attachment A, *Abnormal Event Process*.

It is recommended that the FOD/RAD and/or line management contact SEO Division immediately for assistance with severe events that do or might meet OE criteria. SEO personnel manage all verbal and written communications regarding a declared OE, both internal and external to LANL and from declaration through termination of the emergency condition.

After SEO personnel terminate the OE, the FOD regains control of the event scene and the balance of the abnormal event process proceeds according to this document.

Security Incidents. Workers must report incidents of known or potential security concern to the Security Incident Team (SIT) in accordance with requirements in [P201-3](#), *Reporting Known and Potential Incidents of Security Concern*. Events strictly of security concern are not subject to the requirements in this document. For events that present components of security concern but also safety or operational issues, the FOD must work with the SIT to ensure requirements of this document and [P201-3](#) are met. Contact the SIT for assistance with the security incident program.

Price-Anderson Amendments Act/Worker Safety and Health (PAAA/WSH). Events at all levels of severity (Occurrence Reporting and Processing System [ORPS] and Sub-ORPS) are subject to all requirements in this document, but also to additional screening and possibly reporting to the DOE Noncompliance Tracking System (NTS) in accordance with [P141](#), *Price Anderson Amendments Act (PAAA)*, *Worker Safety and Health (WSH)*, and *Classified Information Security (CIS) Enforcement Procedure*. Contact the local PAAA Point of Contact and/or PAAA Coordinators in the [QPA PAAA Program Office](#) for assistance with this program.

3.0 PROCEDURE DESCRIPTION

The Laboratory implements a graded approach for investigating and resolving abnormal events. See Table 1 for a summary of the three-tier graded approach, and Attachment A, *Abnormal Event Process*, for the process flow at each of the three tiers.

Table 1. Graded Approach to Abnormal Events		
Event Type	Examples	Who Investigates/Resolves
Certain high-profile Occurrence Reporting and Processing System (ORPS)-reportable events (i.e., Operational Emergency [OE], Significance Category [SC]1 or Significance Category Recurring [SCR]) may be subject to a Team Investigation	<ul style="list-style-type: none"> Fatality, terminal or disabling injury Criticality accident or near miss Radiation exposure exceeding limits for a worker or member of the public 	<ul style="list-style-type: none"> A team appointed by the Laboratory Director (DIR) or designee investigates events and resolves concerns. Management oversees Corrective Action Plan (CAP) and response in accordance with the charter memo (see Section 3.11). In the absence of a charter memo, the Contractor Assurance Officer (CAO) will assign the CAP oversight responsibility. A team appointed by the Facility Operations Director (FOD)/Responsible Associate Director (RAD) investigates events and resolves concerns.
Low- to moderate-significance ORPS-	<ul style="list-style-type: none"> Injury requiring hospitalization 	<ul style="list-style-type: none"> FODs and qualified Quality and Performance Assurance—

reportable events that exceed the ORPS thresholds	<ul style="list-style-type: none"> ▪ Failures of safety-required equipment ▪ Moderate-hazard electrical shock events ▪ Violations of safety requirements 	Performance Assurance (QPA-PA) investigators investigate event. <ul style="list-style-type: none"> ▪ Appropriate Management Review Boards (MRBs) oversee corrective action.
Sub-ORPS events that fall below the ORPS thresholds	<ul style="list-style-type: none"> ▪ Minor workplace incidents or near misses ▪ Minor equipment failures ▪ Operational concerns resulting in pause or stop work 	<ul style="list-style-type: none"> ▪ Improvement Responsible Managers (IRMs) from the facility or program where the event occurred investigate event. ▪ Local MRB oversees corrective action.

3.1 Notify Management of an Abnormal Event

Abnormal events at LANL require immediate management notifications. Workers generally witness first hand or discover evidence of abnormal events, and must recognize the abnormality, stabilize the situation to the extent possible and safe to do so (e.g., pause or stop work), and initiate the notifications to their chain of facility and line management.

Workers who are involved in any abnormal event or who discover any abnormal condition must do the following:

- notify their immediate supervisor, or the first immediately available manager in the worker's chain of command; and
- notify the FOD or designee if required by local procedures or if their immediate supervisor is unavailable.

Supervisors and first line managers, group-level managers, and division-level managers who are notified by a worker or in any way become aware of an abnormal event must do the following:

- ensure notification of the FOD/designee for all abnormal events;
- notify the first immediately available manager in their upward chain; and
- follow any additional FOD or RAD expectations for additional notifications.

RADs, upon being notified of an abnormal event in their facility and based on the significance of the event, should do the following:

- consult with the FOD/designee on response to the event and to ensure that compensatory measures for significant conditions adverse to quality are in place prior to the resumption of work;
- notify their Principal Associate Director (PAD);
- notify the DIR; and
- notify affected sponsors or external program managers of the involved facility or project.

The management notifications described above are generally verbal. The FOD is responsible for official written notification of the event in accordance with Section 3.3.

3.2 Categorize the Event

The FOD categorizes all nonemergency abnormal events within two hours of the discovery date/time, or as soon thereafter as reasonably possible. This categorization is critical because it sets the course for the level of investigating and reporting and the subsequent involvement of investigators. The FOD or designee must gather key facts, decide whether an abnormal event has in fact occurred, and categorize the event as either ORPS reportable or Sub-ORPS reportable. Categorization follows the reporting criteria of [DOE O 232.2](#), *Occurrence Reporting and Processing of Operations Information*. DOE reporting and categorization criteria and QPA-PA procedures are found on the [Occurrence Reporting](#) webpage. Events falling below the ORPS thresholds are processed as Sub-ORPS. See Section 3.10.

The event categorization establishes the next steps, including the following:

- External notifications to include the DOE/NNSA-Los Alamos Field Office (NA-LA) Facility Representative (FR) and possibly DOE Headquarters Operations Center (HQ OC).
- Reporting timelines.
- Rigor applied to the investigation, causal analysis, and corrective action development.
- Approvals required for the final report.

Categorization places each ORPS-reportable event into a Significance Category (SC) based on DOE requirements as follows:

- OE (as defined in [DOE O 151.1C](#), *Comprehensive Emergency Management System*). Major unplanned or abnormal events or conditions that: involve or affect DOE/NNSA facilities and activities by causing, or having the potential to cause, serious health and safety or environmental impacts; require resources from outside the immediate/affected area or local event scene to supplement the initial response; and, require time-urgent notifications to initiate response activities at locations beyond the event scene. OEs are the most serious occurrences and require an increased alert status for onsite personnel and, in specified cases, for offsite authorities.
- SC 1. Non-OE events that caused actual harm; posed the potential for immediate harm or mission interruption due to safety system failure and required prompt mitigative action; or constituted an egregious noncompliance with regulatory requirements that created the potential for actual harm or mission interruption.
- SC 2. Circumstances that reflected degraded safety margins necessitating prompt management attention along with modified normal operations to prevent an adverse effect on safe facility operations; worker or public safety and health, including significant personnel injuries; regulatory compliance; or public/business interests.
- SC 3. Events or circumstances with localized implications including personnel injury, environmental releases, equipment damage or hazardous circumstances that were locally contained and did not immediately suggest broader systemic concerns.
- SC 4. Events or circumstances that were mitigated or contained by normal operating practices, but where reporting provides potential learning opportunities for others.
- SC R. Recurring occurrences are those identified as recurring, either directly or through periodic analysis of occurrences and other non-reportable events.

If early information is incomplete, the FOD must categorize conservatively (at the higher level being considered) within two hours, then adjust the category at the fact finding (the worker-involved meeting to discuss the abnormal event) or as more information becomes available.

Note: Disputes about categorization may be encountered at any time in the ORPS process but are most common on initial, pre-fact finding categorization or in the management close out portion of the fact finding (see Section 3.3). Differences of opinion are most common in subjective cases falling under Group 10, *Management Concerns/Issues*, but may occur in cases falling under the more objective Groups 1–9 (see [QPA-PA-FSD-003](#), *Abnormal Events Handbook* for definitions of these groups). If consensus on categorization is not possible (e.g., disputes involving the NA-LA FR), the FOD is responsible for coordinating with the RAD and resolving the dispute. If necessary, the FOD and RAD are expected to escalate the decision via the appropriate LANL chain of command. The investigator should remain advisory to this discussion, bringing to the table knowledge of prior similar event categorizations and, as possible, fostering institutional consistency even in the most subjective areas of the categorization process.

Note: If, in the investigator's professional opinion, a reporting decision finalized by the FOD is clearly inconsistent with the objective elements of the DOE reporting criteria, the investigator must advise the FOD of this opinion, explain the technical basis for the opinion, and attempt to negotiate resolution. If the discrepancy remains unresolved, the investigator must report the unresolved disagreement to the QPA-PA Group Leader for his/her advice and possible direct involvement in the discussion with ADNHHO, if necessary.

3.3 Transmit Prompt (E-mail) Event/Incident Notification

As soon as possible after categorization, the FOD or designee sends an Event Notification to key stakeholders both inside and outside LANL with the best available information about the event. The Event Notification is sent to nhnotification@lanl.gov and includes the following information:

- Date/time of discovery
- Date/time of categorization
- FOD and RAD
- Location of the event (TA/Building; facility name, room)
- Event title and description
- Whether the event is ORPS-reportable or Sub-ORPS
- If ORPS reportable, include the significance category, the event reporting criterion, and whether or not a fact finding will be held.

3.4 Fact Finding for the Event

The fact finding is a discovery and learning opportunity that is the central, first step in launching an effective partnership between workers, supervisors, and managers to understand events and conditions. The purpose of a fact finding is to have workers discuss the various facts surrounding an event and any associated conditions, both positive and negative, with an overall objective to learn and improve.

Fact findings consist of two functional parts: (1) the required worker/responder segment, with the purpose of listening to the story as told by involved workers and responders, understanding and learning about the event, and reviewing compensatory actions already taken; and (2) the management closeout segment for supervisors/managers, where workers/responders are typically excused and discussion focuses on additional immediate or compensatory actions, confirmation and/or determination of categorization, and the scope of the investigation and causal analysis as well as consideration for any extent of condition evaluation.

The FOD has the responsibility and authority for the fact finding process. Fact findings are optional at FOD and/or RAD discretion, based on whether a discussion of the facts surrounding the event provides a reasonable opportunity for organizational learning. Examples of events that may not warrant a fact finding include receipt of Notices of Violation (NOVs), environmental related releases, and discovery of Suspect Counterfeit Items (S/CIs).

All fact findings at the Laboratory should meet the following four key expectations:

- **Conduct fact finding (if held) in a timely manner to ensure reporting requirements are met.** See Table 2 for reporting timelines.
- **Attendance in the worker/responder portion of the fact finding should include those individuals involved in the event, including immediate response personnel.** The FOD is responsible to work with the RAD and ensure that the necessary attendees are identified and invited to the fact finding. Recommended attendance at the worker/responder portion of fact findings is as follows (*Note*: an asterisk indicates the minimum recommended attendance):
 - FOD*
 - Involved worker(s)*
 - QPA-PA investigator* (for ORPS)
 - FOD Improvement Management Coordinator (IMC)* (required for Sub-ORPS)
 - Witnesses
 - Key responders*
 - Immediate supervisor/manager of involved worker(s)
 - Key SMEs (e.g., Health Physicist [HP], Industrial Hygienist [IH], electrical Authority Having Jurisdiction [AHJ])
 - PAAA office coordinator (invited)
 - NA-LA FR (invited)
 - Defense Nuclear Facilities Safety Board (DNFSB) representative (invited for nuclear facilities)
 - Nuclear Criticality Safety Committee (invited for all criticality safety-related fact findings)

FODs must invite the PAAA office coordinator, the NA-LA FR, and DNFSB representative to all fact findings (DNFSB representative for nuclear facilities only), but attendance is at their discretion. Phone, e-mail, or pager messages can serve as notification.

Attendance by line management is optional; however, immediate supervisors and managers are encouraged to attend fact findings. It is important to maintain the fact finding as a discovery and learning exercise, not a management briefing, an investigation, or a corrective action session. Therefore, it is the FOD/RAD's authority to manage the attendance size of the fact finding. Additional guidance for fact finding attendance is available in [QPA-PA-FSD-003](#), *Abnormal Events Handbook*.

The PAAA office coordinator, NA-LA FRs, Nuclear Criticality Safety Committee representative (for criticality safety related events), and DNFSB representatives must be invited to all fact findings, but attendance is at their discretion and timely held fact findings will proceed on schedule even in the absence of these parties. These attendance guidelines for LANL fact findings apply equally to all events, from minor to the most severe.

- **Attendees must strive to arrive at the fact finding with relevant documentation (e.g., photos, schematics, change notices, work packages, and/or relevant procedures/policies) to support establishment of the factual information.**
- **The fact finding must be an open discussion forum that exhibits all of the attributes of a positive safety culture.** A healthy fact finding process is one cornerstone of a learning organization and, if well executed, will result in management and employees continually exhibiting all of the positive safety culture attributes of leadership, employee engagement, and organizational learning.

Positive safety culture attributes suggested for all LANL fact findings are listed below. These elements honor Human Performance Improvement (HPI) principles and should be encouraged by managers and attendees involved in all fact findings.

- All individuals directly involved in the event are in attendance.
- The facilitator/FOD, and management in attendance, set and maintain the tone for the fact finding as an open, no-fault, candid, learning environment at all times. If necessary, the facilitator/FOD promptly reminds those in attendance of the ground rules and prevents overt or covert placing of blame. The facilitator/FOD will excuse any individual who will not exhibit this or any other positive safety culture attribute.
- The dialogue is open and professional and all in attendance are treated equally and respectfully.
- There is no evidence of placing blame.
- Directly involved employees do most of the talking with minimal interruptions.
- Management and all attendees are actively listening. Body language and actions suggest genuine interest in hearing and learning from involved workers and responders.
- As a rule, attendees are to refrain from cell phone use, including texting or e-mail, and should not engage in any other distracting behavior during a fact finding. Fact finding attendees, especially management and oversight, do not shift the discussion towards a pre-conceived determination of individual failures in responsibility.
- Attendees do not prevent the free flow of factual information.
- Individuals should be comfortable and willing to speak up regarding the facts, including what they observed.
- The emphasis of the fact finding is on discovery, learning, and understanding the conditions associated with the event, rather than responsibility, cause, or correction.
- Participants demonstrate the intent to question, learn, and engage others to understand all aspects of an event and underlying conditions.
- Attendees discuss what went "right" in addition to what went "wrong."
- FOD/RAD and/or facilitator recognize and commend participants for self-identification of errors and/or the demonstration of behaviors consistent with positive safety culture principles.

Involved workers, responders, managers and SMEs called upon to attend the fact finding must candidly explain the sequence of events leading up to, during, and immediately following the event. Though constructive, technical, and professional debate is considered healthy and is encouraged, participants must remain cordial and professional in their demeanor and must cooperate fully with the FOD and/or fact finding facilitator.

3.5 Open Event Record in the Performance Feedback and Improvement Tracking System (PFITS) and ORPS

For all ORPS-reportable events, the IMC opens a record in PFITS and the QPA-PA investigator as the agent for the FOD or designee enters a parallel record into the DOE ORPS system. PFITS maintenance beginning at this step is according to the locally applied Performance Feedback and Improvement (PFI) processes, administered with support of IMCs.

Note: For Sub-ORPS events where review showed that no significant event or condition occurred or existed, such as a false fire alarm, entry of a record into PFITS is only required if facility and line management determine that additional review and corrective action is required.

Consistency between the ORPS and PFITS systems is ensured at this stage when the IMC attaches the written ORPS Notification Report to the PFITS record. The QPA-PA investigator provides assistance to the FOD in generating the Notification Report, or for SC 4 events, the Notification/Final Report, in the ORPS system. Upon FOD or designee approval, the QPA-PA investigator must submit Notification Reports to the ORPS system according to Table 2.

Table 2. Timeline for Submission of Notification Reports in ORPS System	
Significance Category	Timelines*
Operational Emergencies (defined by DOE O 151.1C , <i>Comprehensive Emergency Management System</i>) ⁺	<ul style="list-style-type: none"> ▪ Categorize: ASAP ▪ Prompt Notification: 30 min ▪ (15 min if further classified) ▪ Written Notification: Close of Business (COB) the day following the event categorization, not to exceed 90 hours ▪ Final Report: 45 calendar days
Significance Category 1	<ul style="list-style-type: none"> ▪ Categorize: 2 hours ▪ Prompt Notification: 2 hours ▪ Written Notification: COB the day following event categorization, not to exceed 90 hours ▪ Final Report: 45 calendar days
Significance Category R	<ul style="list-style-type: none"> ▪ Categorize: Time of SC R determination ▪ Written Notification: COB 2 business days after event categorization ▪ Final Report: 45 calendar days
Significance Category 2 [^]	<ul style="list-style-type: none"> ▪ Categorize: 2 hours ▪ Prompt Notification: 2 hours ▪ Written Notification: COB the day following event categorization ▪ Final Report: 45 calendar days
Significance Category 3 [^]	<ul style="list-style-type: none"> ▪ Categorize: 2 hours ▪ Prompt Notification: 2 hours ▪ Written Notification: COB 2 business days after the event categorization ▪ Final Report: 45 calendar days

Table 2. Timeline for Submission of Notification Reports in ORPS System

Significance Category	Timelines*
Significance Category 4 [^]	<ul style="list-style-type: none"> ▪ Categorize: 2 hours ▪ Prompt Notification: 2 hours (if required) ▪ Written Notification/Final Report: COB 2 business days after the event categorization
<p>* Categorization and Prompt Notification requirements are in accordance with DOE O 151.1C, <i>Comprehensive Emergency Management System</i>.</p> <p>* Categorization Time is from Discovery date, and time. Notification is from Categorization date and time. Written Notification is from Categorization date, and time.</p> <p>[^] Specific Significance Category 2, 3, and 4 occurrences (identified with * in DOE O 232.2, <i>Occurrence Reporting and Processing of Operations Information</i>, Attachment 2, <i>Reporting Criteria</i>) also require Prompt Notification to the DOE Headquarters Emergency Operations Center (HQ EOC).</p>	

3.6 Investigate

Investigations are required for ORPS-reportable events, and are normally conducted by the QPA-PA investigator. Investigations for Sub-ORPS events are required only for more significant events (see Table 1 for examples). Sub-ORPS investigations, if performed, are generally led by the IRM with assistance from the IMC (see Section 3.10). The most serious events (see Table 1) are investigated by a multidisciplinary team (see Section 3.11). All investigations of abnormal events are graded to the risk or significance of the event, and are performed by individuals trained according to [P322-1](#), *Causal Analysis and Corrective Action Development*. Additional ORPS and causal analysis grading detail is available in the current FSD, [QPA-PA-FSD-003](#), *Abnormal Events Handbook*.

The lead investigator may consult with SMEs, to include HPI Practitioners, as deemed necessary to understand the specific event.

3.7 Determine Causal Factors

Causal analysis is required for ORPS events in SCs OE/1/2/3/R, and is optional for SC 4 or Sub-ORPS events or conditions. ORPS causal analysis is led by the QPA-PA investigator as the agent of the FOD, or by the Team Chair for Team Investigations (see Section 3.11). Causal analysis for Sub-ORPS events is required only for more significant events, in accordance with criteria found in [P322-4](#), *Laboratory Performance Feedback and Improvement Process*.

Generally, the IRM leads the sub-ORPS causal analysis, if performed. The IRM may request assistance from the IMC or other support personnel. HPI-trained personnel may also assist with Sub-ORPS event analysis, as requested by the owning FOD or RAD management (see Section 3.10).

The target for completion of an ORPS causal analysis is 20 business days after categorization of the event. A similar timeframe is recommended but not required for Team Investigations and Sub-ORPS events (see Attachment A, *Abnormal Event Process*). For all abnormal events the causal analysis is performed as described in [P322-1](#), *Causal Analysis and Corrective Action Development*.

3.8 Develop Corrective Actions

Corrective action development in response to identified causal factors is the same for all abnormal events (events requiring Team Investigations, ORPS-reportable events, and Sub-ORPS events) and follows event-related PFI processes within facilities and programs. PFI processes are described in [P322-1](#), *Causal Analysis and Corrective Action Development* and [P322-4](#), *Laboratory Performance Feedback and Improvement Process*.

Recording and tracking of corrective actions occurs in both the DOE ORPS and the LANL PFITS systems. Upon FOD or designee approval, the QPA-PA investigator enters corrective action statements into the ORPS Final Report. The IMC manages detailed action plans and all tracking of actions to closure, including changes to the due date or content of the action, using the PFI process and the PFITS system. For ORPS corrective actions in final reports of OE, SC R, SC 1 or SC 2 significance level, it is at the FOD/RAD discretion to obtain NA-LA FR approval for any target date or corrective action text changes.

ORPS Final Reports are completed within 45 calendar days from categorization of the event (except SC 4, for which Notification/Final Reports are completed in two business days, with corrective actions optional). See Attachment A, *Abnormal Event Process*. Extensions beyond 45 days are coordinated between the FOD and QPA-PA investigator, and require FOD concurrence. Team Investigations follow a schedule established in the charter process. See Section 3.11.

Closure of Sub-ORPS events that are entered into PFITS follows requirements in [P322-4](#). The IMC maintains all material that supports any investigation/evaluation and closure of the Sub-ORPS event in the PFITS record (see Section 3.10).

3.9 Submit Final Report in PFITS and ORPS

For ORPS-reportable events, FODs approve by signature and own the Final Report. QPA-PA staff assist with filling all required Final Report fields and obtaining Derivative Classifier (DC) review. With IMC support, QPA and the FOD ensure recording of the ORPS Final Report in the PFITS system. The PFITS record comprises the official record of corrective actions and concurrence of all assigned action owners.

The QPA-PA investigator enters Team Investigation reports into the ORPS system, but the investigations are also conducted and published in accordance with the conditions of the Team Investigation charter memo. See Section 3.11.

3.10 Sub-ORPS Events

By definition, Sub-ORPS events include all events reported by the FOD in an Event/Incident Notification that do not meet any ORPS threshold. The Laboratory does not publish de minimis criteria or a “floor” for incidents warranting Event/Incident Notification, i.e., Sub-ORPS reporting. FODs are expected to use operational experience, professional judgment, and common sense in their decisions. The ADNHHO is authorized and responsible for guidance and oversight of the Sub-ORPS reporting decision process.

Management notifications (see Section 3.1), categorization by the FOD (see Section 3.2), and Event Notification (see Section 3.3) apply to both ORPS and Sub-ORPS events. Process steps described in Sections 3.4 through 3.9 are carried out for Sub-ORPS events with the roles shifted from the FOD and QPA-PA investigators to responsible managers and IMCs in the facilities and programs. These differences from ORPS-reportable events are noted in each section above. (See Sections 3.1 through 3.9).

The IMC enters sub-ORPS records into PFITS and assigns them the appropriate level of the PFI significance hierarchy based on criteria in [P322-4](#), *Laboratory Performance Feedback and Improvement Process*, and, if applicable, [P141](#), *Price Anderson Amendments Act (PAAA)*, *Worker Safety and Health (WSH)*, and *Classified Information Security (CIS) Enforcement Procedure*.

3.11 Team Investigations

The highest level of investigation, analysis, and corrective action development is reserved for the most significant, high-risk ORPS-reportable occurrences. Team Investigations are undertaken based on LANL prerogative, most commonly for certain OEs and the most serious or recurrent nonemergency events (e.g., SC 1 and SC R [see Table 1 for details]). Team Investigations are chartered formally by the DIR or designee, generally involve more formal investigation and causal analysis methods, and are followed by a more comprehensive corrective action process than routine ORPS investigations. As part of the Team Investigation process, the senior management and ORPS investigator must establish support staff to enter the results of the evaluation into the PFI process, which is typically the IMC of the affected FOD organization.

The sponsoring group should recommend that the following individuals participate in the Team Investigation:

- FOD with responsibility for the facility
- RAD with responsibility for the facility and/or the programmatic activities involved in the event
- ADNHHO
- ORPS investigator and/or assigned causal analyst
- Administrative support
- Technical writer/editor
- SMEs (to include safety experts, technical SMEs, and/or HPI Practitioners)

Note: The charter memo outlines the team membership, the scope of the investigation, the team deliverables, due dates, and the accepting authority for the investigation results. However, small teams may be tasked by a FOD and/or RAD without a charter memo to enhance organizational involvement and learning from the investigation process. For ORPS-reportable events, the QPA-PA investigator enters the results of the Team Investigation into the ORPS system.

When a Team Investigation is declared, the FOD ensures the event scene is preserved and authority for managing access to the scene is formally turned over to the Team Chair.

Team members and consultants are appointed as needed, up to full-time, to the investigation. The Team Chair has authority to enlist additional resources (safety experts, HPI Practitioners, etc.) as deemed necessary. Sponsoring senior management determines and approves any resource and cost allocations for the team's effort. All members of the team fulfill their responsibilities in accordance with the charter memo.

In addition, while not usually stipulated in the investigation charter, management and/or the investigation sponsor and the investigation team must consider the logistics for the investigative effort and should consider development and management of a corrective action plan after the investigation report is accepted.

4.0 RESPONSIBILITIES

4.1 Laboratory Director, Deputy Director, or designated Team Investigation Sponsor

- Initiates formal Team Investigations through a charter memorandum.
- Receives and approves final reports from Team Investigations.
- Assigns RAD or other manager to oversee CAP development following the Team Investigation report submittal and acceptance.

4.2 Associate Directors (as Facility-Owning Responsible Associate Directors [RADs])

- Establish agreement with each sponsored FOD regarding roles, responsibilities, and RAD involvement in the abnormal event process, including categorization, fact finding, corrective action development, and report approval.
- Coordinate with the FOD on an effective PFI process that enables the timely closure of ORPS (45 days) and Sub-ORPS reports and/or records.
- For events warranting Team Investigations in an owned facility, participate as members of the local team and/or appoint a local team to conduct the investigation.
- Ensure that compensatory measures for significant conditions adverse to quality are in place prior to the resumption of work.

4.3 Group- and Division-Level Managers

- Ensure that the appropriate immediate management notifications of abnormal events are made, compliant with facility and organizational expectations.
- Cooperate with FOD, FOD staff, and QPA-PA investigators in all steps of event fact finding, Event Notification, investigation, causal analysis, and corrective action development.
- Participate in the Sub-ORPS process in accordance with FOD/RAD agreements and local PFI processes.

4.4 Supervisors/First Line Managers

- First and foremost, ensure personnel safety as part of any response.
- Ensure timely notification of the FOD and first available line manager (group-level or above) for every abnormal event within their work area or span of supervision.
- Ensure scene stabilization and evidence preservation when safe to do so.
- Cooperate with the FOD, FOD staff, and QPA-PA investigators in all steps of event fact finding, Event Notification, investigation, causal analysis, and corrective action development.

4.5 Workers

- Report to supervisors or first line managers any abnormal event or condition, whether within or beyond the bounds of the assigned work area.
- Participate candidly and openly when invited to fact findings of abnormal events, or when interviewed as part of the investigation.
- Cooperate with the FOD, FOD staff, and QPA-PA investigators in all steps of event fact finding, Event Notification, investigation, causal analysis, and corrective action development.

4.6 Associate Director for Nuclear and High Hazard Operations (ADNHHO)

- Supports performance of all Team Investigations.
- Responsible for the sub-ORPS reporting decision process.

4.7 Contractor Assurance Officer

- Support performance of all Team Investigations.

4.8 Facility Operations Directors (FODs) (as defined in Section 2.2)

- Establish agreement with each sponsoring RAD regarding roles, responsibilities, and RAD involvement in the abnormal event process, including categorization, fact finding, corrective action development, and report approval. Written agreements are recommended but not required.
- Categorize each abnormal event within 2 hours of discovery, or as soon thereafter as reasonably possible.
- Conduct fact findings (if held) in a timely manner to ensure reporting requirements are met. See Table 2 for reporting timelines.
- As soon as possible after categorization, transmit an Event/Incident Notification describing the event to nhnotification@lanl.gov.
- Ensure that required notifications to NA-LA FRs and DOE HQ OC are made within required timelines.
- Ensure that compensatory measures for significant conditions adverse to quality are in place prior to the resumption of work.
- Manage the abnormal event process for the facility, including immediate communications, fact finding, investigation, causal analysis, and handoff to the local PFI process for corrective action development.
- Review, approve, and assume ownership of the Causal Analysis Report expected by Day 20 from the QPA-PA investigator.
- Approve every written report—from Notification to Final—destined for the DOE ORPS system.
- Coordinate with the RAD on developing an effective PFI process, including MRB structure and IMC staffing, to support the closure of ORPS and Sub-ORPS abnormal event reports.
- Monitor and drive continuous improvement in meeting the target timeline of developing and providing to QPA-PA corrective actions and other report closure information by Day 40 after categorization of each ORPS-reportable event.
- Resolve conflicts or disputes regarding any aspect of the abnormal event process, and provide field managerial support to the assigned QPA-PA investigator.
- For events warranting Team Investigation, participate as requested. For all events of any ORPS SC level that become NTS reportable, support the completion of the investigation, causal analysis, and corrective action development.

4.9 Quality and Performance Assurance—Performance Assurance (QPA-PA)

- Deploys trained occurrence investigators to support FODs in all aspects of the abnormal event process, from categorization to final report.
- Drafts for FOD review and approval all written ORPS reports.

- Submits all FOD-approved ORPS reports in the DOE ORPS system.
- Maintains official records for each ORPS-reportable event from categorization to final report. However, the IMC maintains and tracks to closure all ORPS action records in accordance with [P322-4](#), *Laboratory Performance Feedback and Improvement Process*.
- Monitors and drives continuous improvement in meeting the target timeline of delivering draft Update/Final ORPS reports, complete with investigative findings and causal analysis, by the 20th business day after categorization.
- Provides trained occurrence investigators as requested for Team Investigations.
- Supports the Laboratory Lessons Learned process in response to abnormal events as requested.

5.0 IMPLEMENTATION

The requirements in this document are effective on the date of issue.

6.0 TRAINING

FODs, Deputy FODs, Operations Managers, Duty Officers, and all other FOD Unit personnel assigned specific ORPS responsibilities must complete the following:

- Self-Study of current version of [QPA-PA-FSD-003](#), *Abnormal Events Handbook*
- [Course #6206](#), *Occurrence Investigating and Reporting*
- Additional professional development as directed by ADNHHO

Note: (1) Prior completion of this course satisfies the requirement; refresher completion of [Course #6206](#) is recommended every two years but is not a requirement. (2) If the training is neither grandfathered nor completed within 6 months of issuance of this document, the worker may continue to fulfill his/her roles and responsibilities with written authorization from ADNHHO. The written authorization will include a schedule for completing the required training and will expire if training is not completed as scheduled.

QPA-PA provides occurrence investigators who are trained in accordance with QPA-PA-QP-002, *Occurrence Investigator Training Program*.

Managers and supervisors frequently involved in event investigations or causal analyses should consider additional professional development, including internally or externally offered material on causal analysis or human performance.

7.0 EXCEPTION OR VARIANCE

To obtain an exception or variance to this document, see the following instructions:

- Managers may request an exception or variance from the IA through the RM.
- At the IA's request, the RM will provide a recommendation or supporting information.
- The IA or designee will provide the requester with a written response and copy the RM.

The requesting organization must maintain the official copy of record of the approved correspondence granting the exception or variance.

8.0 DOCUMENTS AND RECORDS

8.1 Office of Record

The Policy Office is the Laboratory Office of Record for this Institutional Document and maintains the administrative record.

QPA-PA is the Laboratory Office of Record for ORPS-reportable events, excluding corrective action records but including categorization records, Team Investigation charters, investigation records, causal analysis records, and all written reports from the initial Event/Incident Notification to the ORPS Final Report.

Responsible FOD and RAD offices are the Laboratory Offices of Record for all records related to Sub-ORPS events, and for records of corrective actions, including change control and closure records, for both Sub-ORPS and ORPS events. PFITS is the record system for all such records. Specific responsibilities are divided between FOD and RAD offices according to local event-related PFI processes.

9.0 DEFINITIONS AND ACRONYMS

9.1 Definitions

See LANL [Definition of Terms](#).

Abnormal Event—An accident, incident, or deviation from the planned outcome of a workplace activity that did or could have adversely affected the health or safety of workers, the public, the environment, or the integrity of LANL programs, operations, or facilities.

Facility Operations Director (FOD)—Any individual designated to serve the role of FOD for the abnormal event process. These individuals include not only the NHHO FODs themselves but also any individual in the FOD staff (OM, DO, etc.) to whom the FOD has delegated primary authorities for the portion of the abnormal event process under discussion, and any individual from outside NHHO designated to fill the FOD role. These individuals are generally responsible for a collection of structures/activities or a program and serve the role of FOD for certain events that cannot be assigned to a single FOD Unit. Examples of the FOD role served from outside NHHO include the following:

- construction/demolition project managers for events within their project;
- SMEs (e.g., ENV Division Director) for multi-facility events or events with institutional impact; and
- the Laboratory Director or designee for all Team Investigations.

Facility Operations Director (FOD) Unit—The collected buildings/structures/systems that bound the FOD's span of authority, in accordance with NHHO designations.

Occurrence Report—A documented evaluation of a reportable occurrence that is prepared in sufficient detail to enable the reader to assess its significance, consequences, or implications and to evaluate the actions being proposed or employed to correct the condition or to avoid recurrence.

Responsible Associate Director (RAD)—The Associate Director with overall responsibility and accountability to the Laboratory Director for the safe, secure, and environmentally compliant operations of all work within an assigned set of facilities.

9.2 Acronyms

See LANL [Acronym Master List](#).

ADNHHO	Associate Director for Nuclear and High-Hazard Operations
AHJ	Authority Having Jurisdiction
CAO	Contractor Assurance Officer
CAP	Corrective Action Plan
CAS	Contractor Assurance System
COB	Close of Business
DC	Derivative Classifier
DNFSB	Defense Nuclear Facilities Safety Board
DOE	Department of Energy
ENV	Environmental Protection
EOC	Emergency Operations Center
FOD	Facility Operations Director
FR	Facility Representative
FSD	Functional Series Document
HP	Health Physicist
HPI	Human Performance Improvement
HQ	Headquarters
IA	Issuing Authority
IH	Industrial Hygienist
IMC	Improvement Management Coordinator
IRM	Improvement Responsible Manager
JON	Judgment of Need
LANL	Los Alamos National Laboratory
LANS	Los Alamos National Security, LLC
MRB	Management Review Board
NA-LA	DOE/NNSA-Los Alamos Field Office
NHHO	Nuclear and High-Hazard Operations
NNSA	National Nuclear Security Administration
NOV	Notice of Violation
NTS	Noncompliance Tracking System
OC	Operations Center
OE	Operational Emergency
ORPS	Occurrence Reporting and Processing
OS-PT	Operations Support-Packaging and Transportation
PAAA	Price-Anderson Amendments Act
PAD	Principal Associate Director
PFI	Performance Feedback and Improvement
PFITS	Performance Feedback and Improvement Tracking System
QPA	Quality and Performance Assurance
QPA-PA	Quality and Performance Assurance–Performance Assurance

RAD	Responsible Associate Director
RM	Responsible Manager
RO	Responsible Office
SC	Significance Category
S/CI	Suspect/Counterfeit Item
SCIC	Suspect/Counterfeit Items Coordinator
SCR	Significance Category Recurring
SEO	Security and Emergency Operations
SEO-EM	Security and Emergency Operations-Emergency Management
SIT	Security Incident Team
SME	Subject Matter Expert
WSH	Worker Safety and Health

10.0 HISTORY

Revision History		
09/20/06	ISD 322-3.0	Initial Issue, ISD 322-3.0, <i>Manual for Communicating, Investigating, and Reporting Abnormal Events</i> .
09/25/06	ISD 322-3.1	Administrative Change. IP300-SD5 replaced and rescinded by IP320.0.
10/15/08	ISD 322-3.2	<p>The following Quick Changes (minor non substantive) were made:</p> <p>Global change to document: QA-OA to ESH-IO.</p> <p>Page 5, Overview, paragraph 3 , add: 1. sentence: Events that do not meet ORPS reporting criteria are reported in the LIMTS system as described in P322-4, <i>Laboratory Performance Feedback and Improvement Process</i>. 2. add ESH Integration Office (ESH-IO) to sentence Events that meet a DOE defined reporting criterion are reported and investigated by trained and qualified...</p> <p>Page 5, Overview, paragraph 4, changed to: The Associate Director for Environment, Safety, Health, and Quality is the Issuing Authority (IA) for this document. The ESH-IO Office Manager is the Responsible Manager (RM) and the Occurrence Reporting Team (OR) is the Responsible Office (RO).</p> <p>Page 8, Abnormal Event/Condition Process Outline, change bullet 14 and add bullet 15:</p> <ul style="list-style-type: none"> ▪ 14) All ORPS corrective actions are entered into LIMTS and tracked as described in P322-4. ▪ 15) ORPS events are trended and analyzed for repetitive events on a quarterly basis. <p>Page 13, bullets 6 and 7: Events that do not meet ORPS reporting criteria are reported in the LIMTS system as described in P322-4.</p> <p>Page 12, Note: Delete note.</p> <p>Page 13, Categorization process, item 2, second bullet, change to: Events that do not meet ORPS reporting criteria are</p>

Revision History		
		<p>reported in the LIMTS system as described in P322-4.</p> <p>Page 14, Preparing for a Critique, item 2, second bullet, add: must be notified.</p> <p>Page 16, item 2, add: and consider extent of condition.</p> <p>Page 17, bullet 4, change to: Events are reported in LIMTS system as described in P322-4.</p>
12/11/08	P322-3, Rev. 0	Renumbered document, ISD 322-3, <i>Manual for Communicating, Investigating, and Reporting Abnormal Events</i> .
04/15/09	P322-3, Rev. 1	<p>Quick Change</p> <p>Replace previous IA with newly identified AD.</p> <p>Clarification of existing requirements as documented in detailed individual procedures (pages 5, 7, 10, 12, 15, 17, 18).</p> <p>Revision of flowchart to reflect adherence to P322-4.</p>
07/27/11	P322-3, Rev. 2	<p>Major Revision</p> <p>Change title from “Manual for Communicating, Investigating, and Reporting Abnormal Events,” to “Performance Improvement from Abnormal Events.”</p> <p>Revise process to achieve consistency with Performance Feedback and Improvement Process changes.</p> <p>Revise organizational roles due to move of ORPS Team from Environment, Safety, Health, and Quality (ESH&Q) to CAO-PF.</p> <p>Change IA, RO, and RM to match organizational restructure.</p>
09/20/12	P322-3, Rev. 3	<p>Changed CAO-PF to Quality and Performance Assurance-Performance Assurance (QPA-PA) throughout document due to reorganization.</p> <p>Clarified language in Section 2.2.</p> <p>Updated links, titles, and acronyms.</p>
12/10/15	P322-3, Rev. 4	<p>Performed three-year review in accordance with PD311, <i>Requirements System and Hierarchy</i>.</p> <p>Changed title of notification process and system to Event Notification process and added distribution for said process as nhhnotification@lanl.gov.</p> <p>Changed the name of the worker-involved meeting to discuss the abnormal event from “critique” to “fact finding.”</p> <p>Aligned Tables 1 and 2 with QPA-PA-FSD-003, <i>Abnormal Events Handbook</i>.</p> <p>Added requirements of NAP-24, <i>Weapon Quality Policy</i>, to Sections 3.1 and 4.0.</p> <p>Incorporated Safety Culture attributes into Section 3.4 to include emphasis on learning and eliminating both foregone conclusions and blame-placing.</p> <p>In Section 3.4, added that fact findings are optional at FOD and/or RAD discretion, based on whether a discussion of the facts surrounding the event provides a reasonable opportunity for organizational learning.</p>

Revision History		
		<p>In Section 3.8, added that obtaining NA-LA FR approval of final ORPS report dates/text changes is at FOD/RAD discretion.</p> <p>Updated training section to account for current LANL offerings.</p> <p>Updated links, titles, and acronyms.</p>

11.0 REFERENCES

Prime Contract:

- [DOE O 232.2](#), *Occurrence Reporting and Processing of Operations Information*, or current version
- [DOE O 151.1C](#), *Comprehensive Emergency Management System*
- NAP-24, *Weapon Quality Policy*

11.1 Other References

- [SD320](#), *Los Alamos National Laboratory Contractor Assurance System Description Document*
- [P313](#), *Roles, Responsibilities, Authorities, and Accountability*
- [Occurrence Reporting](#) webpage
- [QPA-PA-FSD-003](#), *Abnormal Events Handbook*
- [PD1200](#), *Emergency Management*
- SEO-DO-PLAN-100, *Hazardous Materials Program Emergency Plan*
- [P201-3](#), *Reporting Known and Potential Incidents of Security Concern*
- [P141](#), *Price Anderson Amendments Act (PAAA), Worker Safety and Health (WSH), and Classified Information Security (CIS) Enforcement Procedure*
- [QPA PAAA Program Office](#)
- [P322-1](#), *Causal Analysis and Corrective Action Development*
- [P322-4](#), *Laboratory Performance Feedback and Improvement Process*
- [PD311](#), *Requirements System and Hierarchy*
- [P781-1](#), *Conduct of Training*

12.0 FORMS

There are no forms associated with this document.

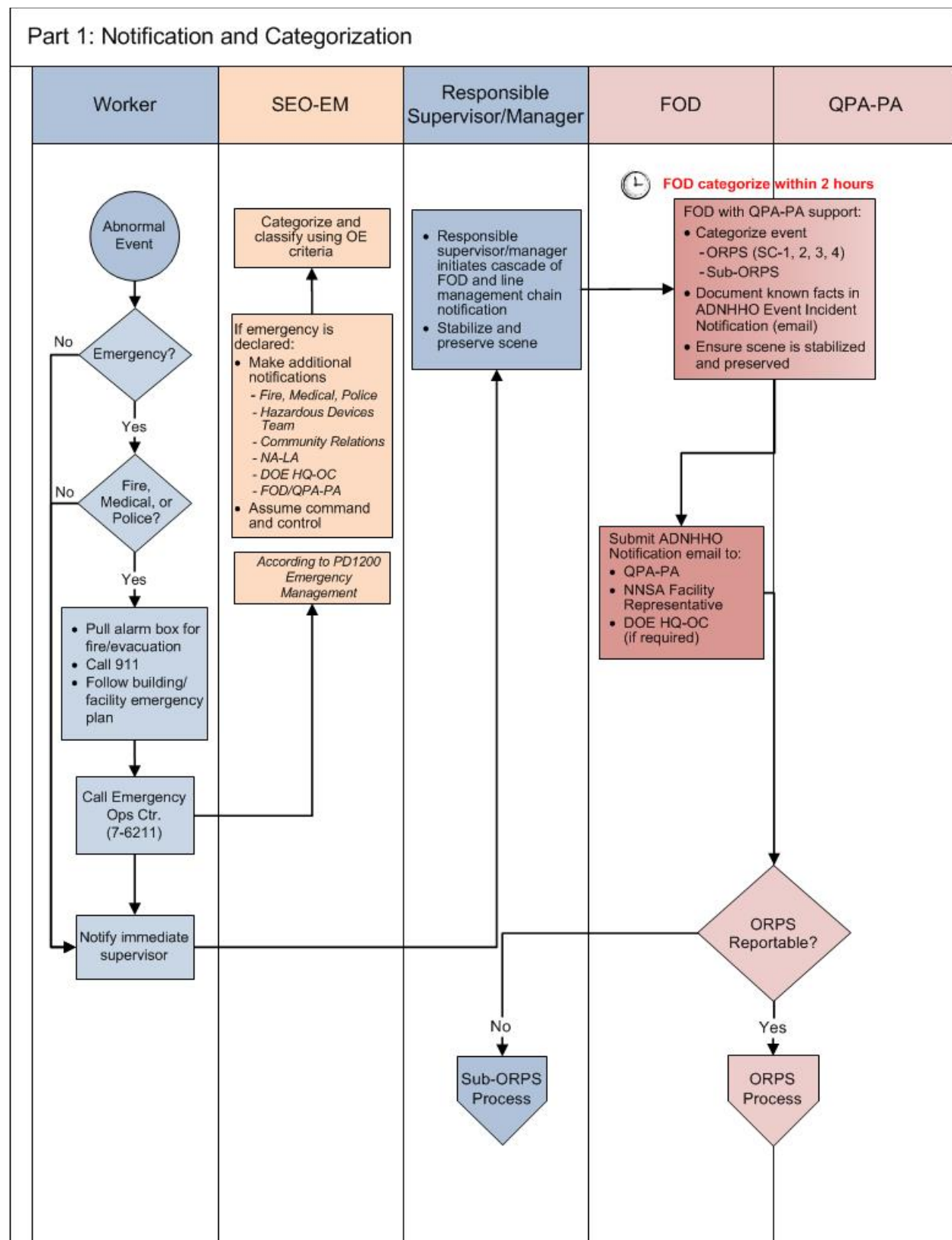
13.0 ATTACHMENTS

Attachment A. *Abnormal Event Process*

14.0 CONTACT

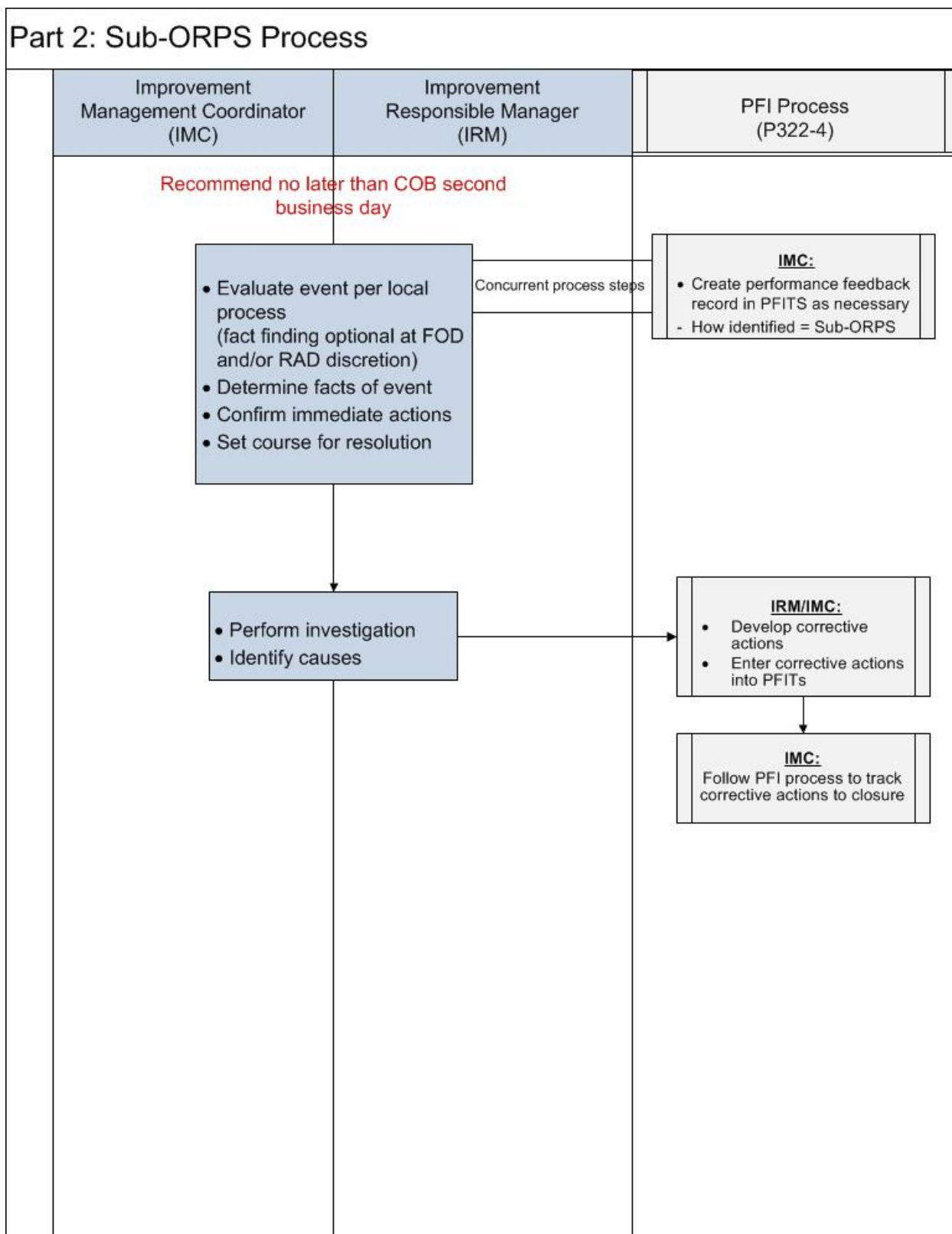
Quality and Performance Assurance-Performance Assurance Group (QPA-PA), Occurrence Investigation Team
 Telephone: (505) 665-0033
[Occurrence Reporting](#) webpage

No: P322-3 Performance Improvement from Abnormal Events
Attachment A. Abnormal Event Process (Page 1 of 4)

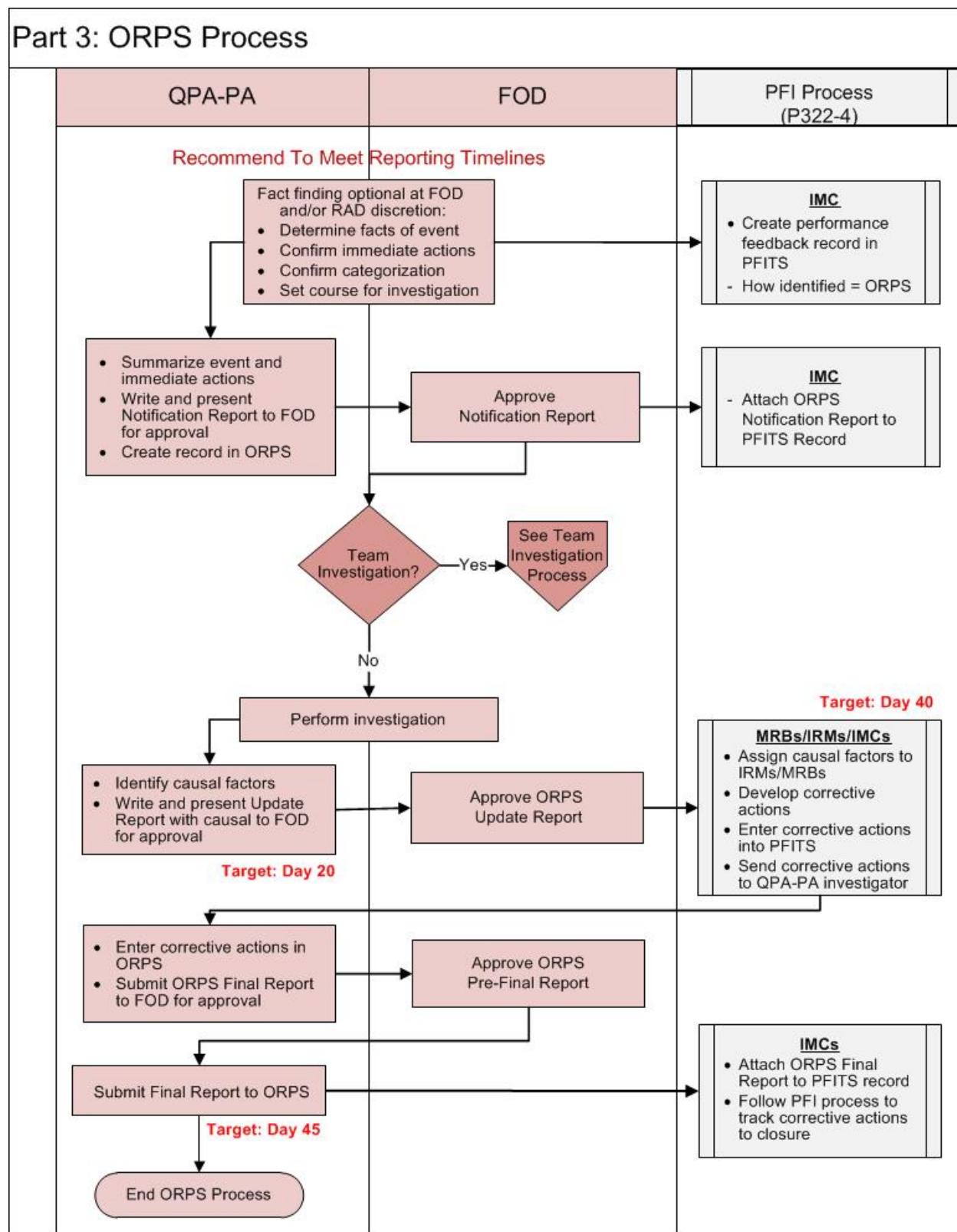


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P322-3, Rev. 4
Effective Date: 12/10/15

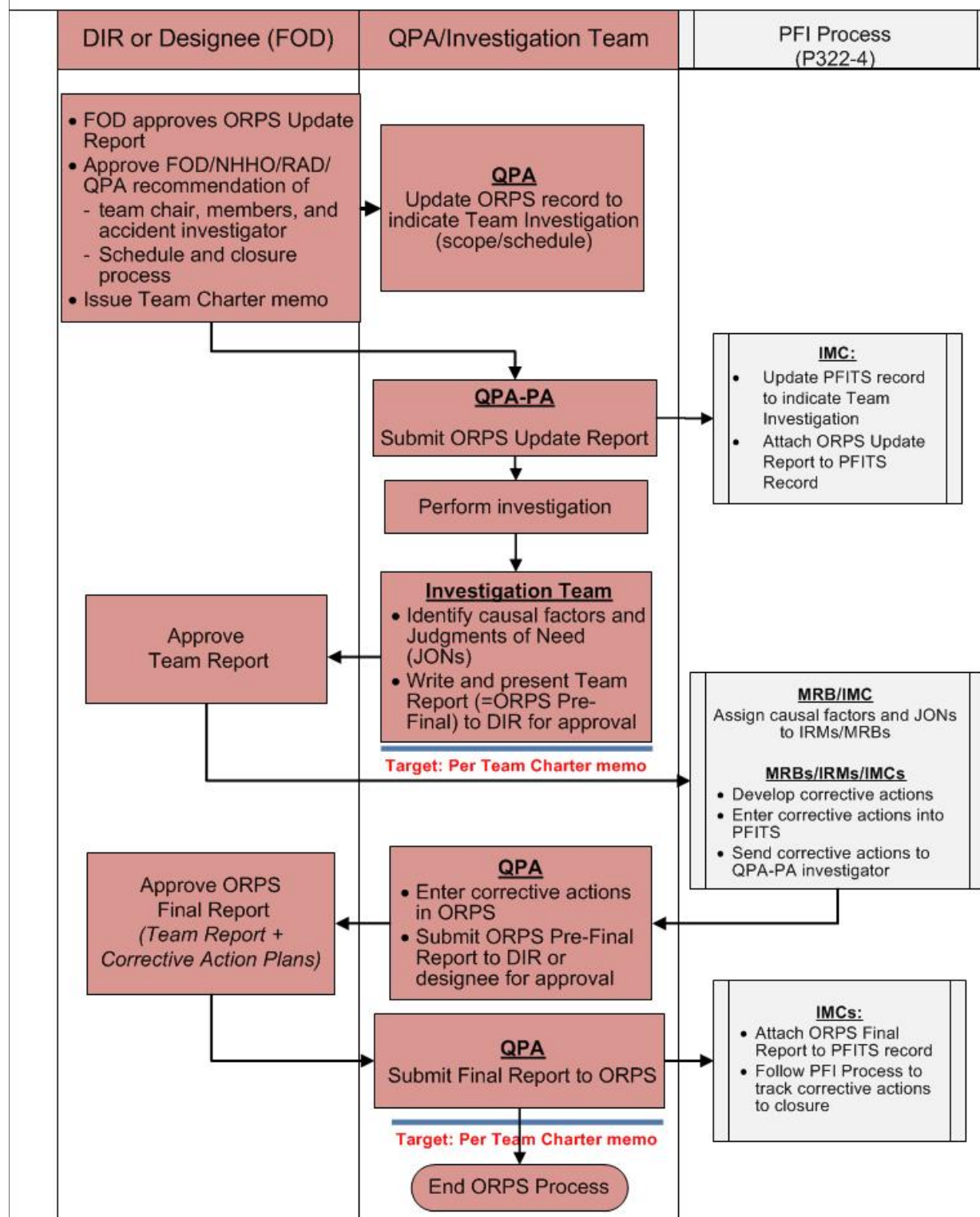
No: P322-3 Performance Improvement from Abnormal Events
Attachment A. Abnormal Event Process (Cont.) (Page 2 of 4)

No: P322-3 Performance Improvement from Abnormal Events
Attachment A. Abnormal Event Process (Cont.) (Page 3 of 4)



No: P322-3 Performance Improvement from Abnormal Events
Attachment A. Abnormal Event Process (Cont.) (Page 4 of 4)

Part 4: Team Investigation Process

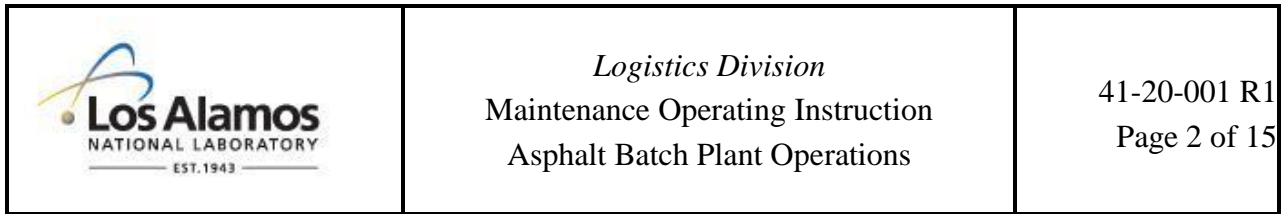



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IMPORTANT

If you wish to receive credit for the preceding document you **must** enter the course through [UTrain](#) **not** the Policy Office website.

Signature on File



	<p style="text-align: center;"><i>Logistics Division</i></p> <p style="text-align: center;">Maintenance Operating Instruction</p> <p style="text-align: center;">Asphalt Batch Plant Operations</p>	<p style="text-align: right;">41-20-001 R1</p> <p style="text-align: right;">Page 2 of 15</p>
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	<p style="text-align: center;"><i>Logistics Division</i></p> <p style="text-align: center;">Maintenance Operating Instruction</p> <p style="text-align: center;">Asphalt Batch Plant Operations</p>	<p style="text-align: right;">41-20-001 R1</p> <p style="text-align: right;">Page 2 of 15</p>
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RECORD OF REVISIONS

[illegible]



	<p style="text-align: center;"><i>Logistics Division</i> Maintenance Operating Instruction Asphalt Batch Plant Operations</p>	<p style="text-align: right;">41-20-001 R1 Page 3 of 15</p>
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1.0 PURPOSE/SCOPE

This document provides requirements and instruction for the operation of the Asphalt Batch Plant (ABP).

This instruction applies to all MSS personnel responsible for work performance in support of the ABP.

2.0 DEFINITIONS/ACRONYMS

ASM – Acquisitions Services Management

Asphalt Batch Plant (ABP) – A machine designed to heat asphalt and aggregate mix to specified proportions, and discharge it into a truck for delivery to the job site.

CFR – Code of Federal Regulations

DEP—Deployed Environmental Professional

°F – Degrees Fahrenheit

ENV-ES – The operational group in the Environmental Protection Division (ENV) that provides environmental compliance assistance with air quality regulations

ENV-RCRA - The operational group in the Environmental Protection Division (ENV) that provides environmental compliance assistance with water resources and hazardous/solid wastes regulations

ES&H – Environment, Safety, & Health

Heat Transfer Oil Heater – A machine designed to heat asphalt and circulate oil through a series of coils. The coils heat the asphalt in a separate tank.

Hot Mix –A mixture of asphalt binder and graded mineral aggregate mixed at an elevated temperature and compacted to form a relatively dense pavement layer.

IWD – Integrated Work Document

HERG – Heavy Equipment Roads & Grounds

LO/TO – Lockout/Tagout


MM – Maintenance Manager

Mix Design – Performance based mix for which the number, type, and proportions of ingredients are determined by the engineer with the objective of producing asphalt having certain strength, gradation, flow and durability.

MSDS – Material Safety Data Sheets

MSS – Maintenance & Site Services

NMED – New Mexico Environment Department

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NM DOT- New Mexico Department of Transportation

PM – Preventative maintenance

PPT – Pollution Prevention Team

SPCC—Spill Prevention, Control, and Countermeasures rule includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters including implementation of a site-specific plan.

SWPPP – Storm Water Pollution Prevention Plan is a site-specific document that identifies the regulated industrial activity and the controls implemented to prevent pollutants from being transported from the site by storm water runoff.

3.0 ROLES AND RESPONSIBILITIES

Roles and responsibilities for personnel who will ensure implementation of this document, e.g, Maintenance Manager, Maintenance Coordinator, Superintendent, Supervisor, and Work Provider, can be found on P 950, *LANL Conduct of Maintenance* and P 313, *Roles, Responsibilities, Authorities, and Accountability*, for a listing of maintenance program roles and responsibilities.

3.1 Roads Section Superintendent

The Craft Superintendent is responsible for the operation of the ABP. The superintendent will establish the job qualifications for craft personnel, arrange for necessary training, establish and maintain program records and documentation, and enforce procedure requirements during work performance.


The Craft Superintendent is responsible for determining the necessary qualifications and training required to perform work supporting ABP operation, for developing the necessary procedures and checklists, and for ensuring that the program records and documentation are properly completed.

3.2 Operator Foreman

The operator foreman is responsible for the assignment of qualified and properly trained craft personnel to this work. The foreman will ensure that the necessary materials, equipment, tools or other resources needed to complete the work are available to the craft personnel. The foreman will also ensure that the craft personnel complete the work according to the procedure and the work checklist(s), as appropriate, and that all documentation is verified correct.

3.3 Deployed Environmental Professional

The Deployed Environmental Professional (DEP) is responsible for assisting the facility in maintaining compliance with applicable environmental regulations. The DEP will assist in

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developing, updating, and maintaining a site-specific Storm Water Pollution Prevention Plan (SWPPP) and a Spill Prevention, Control, and Countermeasures (SPCC) Plan; performing required inspections; and recommending measures to address environmental compliance concerns.

4.0 SAFETY

The PIC, Supervisor, or Foreman shall ensure the work package is complete in accordance with P 950, *LANL Conduct of Maintenance* and AP-WORK-002, *Work Planning*.

Before work is started, the Supervisor/Foreman shall conduct a pre-job briefing with the craft worker(s) to include: job assignment, hazards involved by reviewing the IWD approved and signed by a qualified person, training requirements, job site procedures, necessary safety equipment, personal protective equipment, and Material Safety Data Sheets (MSDS) information.

	<p>HOT ASPHALT CAN CAUSE SEVERE BURNS.</p>
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Refer to the IWD for required PPE when working outside the control room. Wear gloves when handling the unloading hose.

The craft is responsible for understanding the hazards and hazard controls (including **STOP WORK**) identified for the work tasks in the IWD. Notify the Supervisor or Foreman when a change in the scope of work is identified, or process or hazard conditions change (refer to P101-18, *Procedures for Pause/Stop Work*, P300, *Integrated Work Management*).

All changes to the scope of work and/or newly identified hazards and process changes must be addressed in a revised IWD subject to signature and approval by a qualified person. The job must be stopped until the IWD is revised and approved. All workers must be briefed on the revised IWD prior to restart of work.

No personnel shall be allowed to enter confined spaces without proper training and written procedures for each confined space.

Equipment must be de-energized as required in P101-3, *Lockout/Tagout for Hazardous Energy Control*. Follow LO/TO procedures to perform any electrical work except when troubleshooting before or during maintenance. All personnel shall comply with current LO/TO procedures when performing pre-operational or post-operational inspections or preventative maintenance.

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5.0 QUALIFICATIONS

Personnel performing tasks in this procedure must have a working knowledge of asphalt batch plant operations or be working under the direction of a qualified operator.

6.0 TRAINING

Personnel will receive training in the overall Laboratory ES&H policy. No activity or operation will be performed at the Laboratory unless it can be performed in a manner that is protective of employees, the public, and the environment. Accomplishing these goals requires a team effort on the part of all employees and line managers.

Required training or equivalent:

- Spill Prevention, Control, & Countermeasure and site-specific SPCC plan (annual)
- Basic Fall Protection
- Personnel Protective Equipment
- Chemical Hazard Communication
- Gas Cylinder Safety
- Hearing Conservation
- Ladder Safety
- LO/TO Hands-on Hazardous Energy Control
- Aerial Platform Lift Operator
- Storm Water Pollution Prevention Plan site-specific (annual)


7.0 SPECIAL INSTRUCTIONS

Submit any corrections or recommendations for improvement to this procedure to the Craft Superintendent.

7.1 Off-normal events

Report unusual events or incidents in accordance with P 322-3, *Manual for Communicating, Investigating, and Reporting Abnormal Events*. Report any structural or equipment deficiencies observed during the performance of work to the Operator Foreman so that immediate remedial action can be taken, if required.

Any malfunction of the ABP or environmental controls that may increase air emissions, result in uncontrolled stormwater discharges, or is a spill or release of material must be reported to the DEP for the plant as soon as possible. Malfunctions may need to be reported to NMED within a short period of time.


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7.2 Title V Operating Permit (Air Quality)

- A visible emission observation, as required by the Title V Air Quality permit, must be performed monthly by a certified reader as early in the month as possible and preferably during the first run of the month.
- A visible emission observation is not required for those months the plant does not operate.
- Contact the DEP for the plant if visible emissions are greater than normal, if there are visible emissions from the bag house stack, or to have a monthly observation performed.
- Observation documentation is maintained at the Asphalt Batch Plant Office.
- Plant dust collection system leaks will be repaired immediately to ensure that no dust escapes into the environment which may be in violation of the New Mexico air quality regulations. Notify the plant DEP of any malfunction or problems with the dust collection system immediately. Other data required by the air permit includes entries found on the daily operating log, Form 41-20-001.2.

7.3 SPCC Requirements

- The ABP is required to have a Spill Prevention Control and Countermeasures (SPCC) Plan per 40 CFR Part 112. The purpose of this plan is to provide spill prevention and response measures to prevent oil related spills from polluting navigable waters of the United States through implementation of adequate prevention and response measures.
- The plan is prepared, maintained, and updated by ENV-RCRA and/or the DEP; a copy is maintained on-site at the ABP office.
- Oil handling personnel must be trained in the operation and maintenance of equipment to prevent discharges, spill response actions, applicable regulations, general plant operations, and the contents of the SPCC plan.
- Inspections must be conducted daily, monthly, and annually.
 - Daily inspections (good housekeeping and general safety) are performed by plant operators to check for spills, leaks, obvious problems with tanks or lines, and general conditions. Daily inspections are documented on the Asphalt Batch Plant Daily Inspection Checklist Form 41-20-001.1
 - Monthly and annual inspections are performed by a LANL ENV-RCRA representative or DEP and documented on forms found in the site SPCC plan.
- Contact the DEP with information about spills or off-normal conditions so that the required and timely notifications to regulatory agencies can be made and the SPCC records can be updated.

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7.4 SWPPP Requirements

- Discharges of storm water from the ABP are regulated under the NPDES Multi-Sector General Permit for storm water discharges associated with industrial activities.
- The ABP is required to have a Storm Water Pollution Prevention Plan (SWPPP) to document site description, potential pollutant sources, descriptions of control measures, areas where spills and leaks have occurred, and procedures to maintain control measures. The plan is prepared, maintained, and updated by ENV-RCRA and/or the DEP; a copy is maintained on-site at the ABP office.
- The ABP is required to have a Storm Water Pollution Prevention Team (PPT) per the SWPPP. The PPT consists of operations and management personnel from the ABP, ENV-RCRA storm water personnel, and a DEP. PPT members are responsible for assisting the facility manager in developing and revising the facility's SWPPP as well as maintaining control measures and taking corrective actions where required.
- SWPPP compliance inspections must be conducted monthly, quarterly, and annually by the DEP or an ENV-RCRA storm water inspector and documented on the appropriate SWPPP inspection forms. Copies of the completed inspection forms are maintained in the SWPPP at the facility. Contact the DEP with information about spills or off-normal conditions so that the required and timely notifications to regulatory agencies can be made and the SWPPP records can be updated.

8.0 OPERATIONS


8.1 Site Structures

This site has been assigned structure numbers as follows:

- TA-60-233 – Control House
- TA-60-234 – Batch Tower
- TA-60-235 – Dryer
- TA-60-236 – Asphalt Tank
- TA-60-237 – Baghouse

8.2 Process Overview

The primary function of the facility is to produce asphalt for the Laboratory by using a “batch” process (as needed per project). The asphalt batch is then transferred to trucks for delivery to project sites. An overview of the plant's operational process is as follows: Aggregate material, used as feed stock for the asphalt production, is stockpiled on the west side of the property. There is at least one and sometimes more piles of material stored on the ground. The volume of stockpiled aggregate material on site at any given time is approximately 3,000 cubic yards.

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Front-end loaders transfer the aggregate material from stockpiles to a hopper/feeder unit and the material is then mechanically fed to the asphalt processing plant. The processing plant (a BDM Model TM2000 Asphalt Plant) includes a Hopper/Feeder Bin attached to a Conveyor Belt (Structure 60-233), and a Batch Tower with Drop and Dryer Unit (Structure 60-236).

Asphalt emulsion oil and heated aggregate are mechanically mixed in the Batch Tower (Structure 236).

Processed asphalt is transferred (dropped) from the Batch Tower into delivery trucks. Air emissions are controlled by Bag House (Structure 60-235). Air emissions from the facility are regulated under the NMED Title V Air Quality Permit issued to LANL.

Reference Attachment 41-20-001.5, *Asphalt Batch Plant Flow Diagram*.

Any change to the plant, either physical or operational, needs to be communicated to the DEP prior to the change to verify it is compliant and environmental requirements.

8.3 Material Acceptance Criteria

- A qualified Materials Test Lab will approve and accept aggregate prior to use.
- A qualified Material Test Lab will approve and accept the hot mix according to work order specifications.


8.4 Hours of operation

Under the Title V Permit (Air Quality), the plant is authorized to operate during daylight hours between one-half hour after sunrise and through one-half hour before sunset each day of the year. This limitation on operating hours does not apply to the use of the hot oil heater or the loading and/or hauling of asphalt products or materials.

NOTE: Production is limited to 4380 hours/year or 13,000 tons/year, whichever occurs first. The rolling totals are compared to permit limits and reported to NMED twice annually by ENV-ES.

8.5 Operational Inspections and Checklist


- Pre-operational, start-up, operational, and shutdown steps are documented on Form 41-20-001.1, *Asphalt Batch Plant Daily Operational Checklist*.
- The operator will document completion of the steps on the checklist for each day of operation during an operational week.


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- The operator foreman will review the Asphalt Batch Plant Daily Operational Checklist 41-20-001.1, and the Asphalt Batch Plant Daily Operating Log 41-20-001.2 with craft personnel prior to executing the work.
- Prior to beginning operations, the ABP operator will complete the checks in Section 1 on Form 41-20-001.1, *Asphalt Batch Plant Daily Operation Checklist* to ensure that the heat transfer oil heater can be operated properly; there are no visible maintenance problems, leaks, or spills; and the equipment can be operated without safety and environmental concerns.
- The operator will record information required by the air permit on Form 41-20-001.2, *Asphalt Batch Plant Daily Operating Log*. This data must be submitted to the plant DEP within 14 days following the end of the operational month recorded.
- During production the operator will complete and document the start-up and operation checks in Section 2 on Form 41-20-001.1, *Asphalt Batch Plant Daily Operation Checklist*.
- When daily production is completed, the operator will complete and document the shutdown checks in Section 3 on Form 41-20-001.1, *Asphalt Batch Plant Daily Operation Checklist*.
- Review and update Form 41-20-001.1, *Asphalt Batch Plant Daily Operation Checklist*. at least annually or when operating parameters change.

	<p>DO NOT OPERATE THE PLANT IF THERE ARE ANY SAFETY HAZARDS OR ENVIRONMENTAL CONCERNS. NOTIFY SUPERINTENDENT IF ANY HAZARDS ARE PRESENT.</p>
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	<p>DO NOT OPERATE THE PLANT IF THE DUST COLLECTION SYSTEM IS NOT OPERATING PROPERLY.</p>
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	<p>If any of the following items fail to pass inspection, the operator will halt operations and secure the hot plant until repairs are made.</p>
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	<p>Inspect hot mix for proper mixing so that, no dry or oily streaks are visible.</p>
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9.0 PREVENTATIVE MAINTENANCE AND CALIBRATION

9.1 Preventative Maintenance

- Plant preventative maintenance will be scheduled through the MSS work order/planning system and performed semi-annually.
- Preventative maintenance will be performed and documented using Form 41-20-001.3, *Asphalt Batch Plant PM Inspection & Lubrication Checklist*.
- Copies of maintenance records will be maintained at the plant and in the work order/planning system.

9.2 Batch Plant Equipment Requirements – Calibration and Testing

9.2.1 Calibration of the plant scales, load sensors, asphalt flow meter, and asphalt temperature indicating instruments will be performed as required in applicable NMDOT standard specifications and in accordance with LANL policy P330-2, “*Control and Calibration of Measuring and Test Equipment (M&TE)*.”

9.2.2 Calibration will be documented on Form 41-20-001.4, *Asphalt Batch Plant Calibration Compliance*.

9.2.3 Plant Scales (NMDOT 423.3.4.1.1)

- Ensure that the scales are accurate to 0.5% of the maximum allowable load in accordance with NMDOT standard 432.3.4.1.1.
- Annually calibrate Load Plant Scales for batched asphalt.

9.2.4 Weigh Box or Hopper (NMDOT 423.3.4.1.9.1)


- Ensure that the ABP can accurately weigh aggregate in a weigh box or hopper suspended on scales using a weigh box or hopper than can hold a full batch. Ensure that the gate of the weigh box or hopper does not allow material to leak into the mixer while being weighed.
- Annually calibrate Load Sensors for aggregate in accordance with NMDOT standard 432.3.4.1.9.1.

9.2.5 Asphalt Binder Control (NMDOT 423.3.4.1.9.2)

- Measure the asphalt binder with equipment accurate to $\pm 0.3\%$
- Annually calibrate Asphalt Flow Meter in accordance with NMDOT standard 432.3.4.1.9.2.

9.2.6 Asphalt Thermometers (NMDOT 423.3.4.1.7)

- Ensure the asphalt feed line, near the charging valve at the mixer unit, is equipped with an approved recording thermometer with a range from 100°F to 400°F.

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- Ensure the discharge chute of the drier is equipped with an approved recording thermometer to automatically register the temperature of the heated aggregates or mix, as applicable.
- Annually calibrate thermometers per NMDOT 432.3.4.1.7.

10.0 RECORDS

10.1 Forms and Checklists


- Prepare all forms and checklists required to operate the ABP in accordance with this document.
- Form 41-20-001.1, *Asphalt Batch Plant Daily Operation Checklist*. The purpose of this form is to document daily activities associated with heat transfer oil heater pre-operational inspection, start-up, and shut down. This ensures that the ABP can be operated safely and without environmental concerns. The operator foreman will review the checklists with the craft personnel prior to and after executing the work
- Form 41-20-001.2, *Daily Operating Log*. The purpose of this log is to document operational data as required for compliance with NMED Title V Air Quality Permit issued to Los Alamos National Laboratory. This data must be submitted to the plant DEP within 14 days following the end of the month recorded. This data is used to calculate emissions and is submitted to the State as a monitoring record. The DEP will scan the log and return it to the ABP.
- Form 41-20-001.3, *Asphalt Batch Plant PM Inspection and Lubrication Checklist*. This checklist is used to document or list required routine maintenance inspections and actions. The PM will be conducted semiannually and documented using this checklist.
- Form 41-20-001.4, *Asphalt Batch Plant Calibration Compliance*. The purpose of this form is to document performance of required calibrations.

10.2 Records Generated by this Operation

- 41-20-001.1: Asphalt Batch Plant Daily Operation Checklist
- 41-20-001.2: Asphalt Batch Plant Daily Operating Log
- 41-20-001.3: Asphalt Batch Plant PM Inspection and Lubrication Checklist
- 41-20-001.4: Asphalt Batch Plant Calibration Checklist

10.3 Environmental Compliance

- Title V Air Quality Visual Emissions Observation

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- SPCC Plan, inspections, reports, and updates
- SWPPP inspections, reports, and updates

10.4 Records Disposition

Maintain records in accordance with AP-MSS-003, *MSS Records Management Program*.


All forms generated by this procedure must be maintained on site.

All Title V Air Quality Permit compliance records; SPCC Plan and records; and SWPP Plan and records must be maintained on site.

The operator will acknowledge the amount of oil/propane aggregate received on the shipping manifest form and will forward it to the ASM Property Management.

11.0 REFERENCES

Document No.	Title
AP-MSS-003	MSS Records Management Program
AP-WORK-002	Work Planning
P 101-3	Lockout/Tagout for Hazardous Energy Control
P 313	Roles, Responsibilities, Authorities, and Accountability
P 315	Conduct of Operations Manual
P 322-3	Manual for Communicating, Investigating, and Reporting Abnormal Events
P330-2	Control and Calibration of Measuring and Test Equipment (M&TE)
P 950	LANL Conduct of Maintenance
NMDOT Standard Specification for Highway and Bridge Construction	Section 432 HOT-MIX ASPHALT — SUPERPAVE (QLA and Non-QLA)
	LANL Title V Operating Permit (Air Quality)
	TA60 Asphalt Batch Plant SPCC Plan
	TA60 Asphalt Batch Plant SWPPP

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12.0 ATTACHMENTS

- 41-20-001.1: Asphalt Batch Plant Daily Operation Checklist
- 41-20-001.2: Asphalt Batch Plant Daily Operating Log
- 41-20-001.3: Asphalt Batch Plant PM Inspection and Lubrication Checklist
- 41-20-001.4: Asphalt Batch Plant Calibration Checklist
- 41-20-001.5: Asphalt Batch Plant Flow Diagram



Logistics Division
Maintenance Operating Instruction
Asphalt Batch Plant Operations
41-20-001.1: ASPHALT BATCH PLANT DAILY OPERATIONAL CHECKLIST

	START DATE:	END DATE:					
PART 1- Place a Checkmark if the condition is OK or AR (Action Required) if not. Explain ARs in Part 2.							
SECTION 1: HEAT TRANSFER OIL HEATER AND OIL TANK PRE-OPERATIONAL INSPECTION							
ACTION	MON	TUE	WED	THU	FRI	SAT	SUN
Mark days plant is in operation for completion of checklist. For periods when plant is not in operation, complete Section 1 of checklist once a week.							
Inspect heat transfer oil heater and oil level weekly. If necessary, refill to at least ½ of capacity. Use heat transfer oil No. 1 only.							
Inspect heat transfer oil pump for leaks, ensure shaft is free. Repair/adjust if necessary							
Inspect heat transfer oil pump drive coupling. Should be secure, not loose or worn. Adjust/replace as necessary.							
Inspect electric drive motors, heat transfer oil pump, flower fan, and mount. Ensure wiring is secure. Adjust if necessary.							
Inspect temperature setting control valve. Maximum operating temperature should be between 250° F and 360°F							
Check oil tank and pad for spills, leaks, and problems with lines or containment							
Repair any oil leaks before starting Operations							
No general safety concerns identified.							
SECTION 2: START-UP AND OPERATION							
Check the asphalt temperature before starting. Check again every hour to ensure that the temperature does not drop below 250° F.							
Check propane tank. Re-order propane when the tank is 15% of capacity or less.							
Power On per manufacturer's recommendations, including fuel pumps propane, air compressor, asphalt pump forward, pug mill mixer, exhaust fan, burner blower, vibratory screen, hot elevator, dryer, incline conveyor, scalping screen, collector conveyor, cyclone screw, baghouse, feeders aggregate limit, dump aggregate hopper, mixer, and dump oil.							
Weigh required amounts of heated aggregate from three aggregate bins.							
Dump weighed aggregate into pug mill for mixing.							
Process two tons of aggregate (two batches) without asphalt oil through the system to ensure plant and aggregates are at working temperature of not less than 250° F. Do not exceed 360° F.							
Weigh aggregates and asphalt to mix design proportion; dump into pug mill and mix for approximately 60 seconds.							
After dump truck beds have been properly sprayed with a light mist of Zep, Operator will dump hot mix into trucks. Repeat process until desired tonnage is loaded into truck.							
SECTION 3: SHUTDOWN							
Shutdown the plant in reverse order of start-up, including dump oil, mixer, dump aggregate hopper, feeders aggregate limit, baghouse, cyclone screw, collector conveyor, scalping screen, incline conveyor, dryer, hot elevator, vibratory screen, burner blower, exhaust fan, pug mill mixer, asphalt pump forward, air compressor, and fuel pumps propane. NOTE: The incline conveyor and belt feeders will be shutdown first to stop material flow into the plant. As the material flow stops, the dryer flame will be turned down slowly until it is completely off.							
Shutdown asphalt pump. Ensure asphalt is not flowing between asphalt weigh hopper and asphalt storage tank.							



Maintenance & Site Services
Maintenance Operating Instruction
Asphalt Batch Plant Operations
41-20-001.1: ASPHALT BATCH PLANT DAILY OPERATIONAL CHECKLIST

CRAFT NAME: _____ Z#: _____

CRAFT SIGNATURE: _____

SUPERINTENDENT NAME: _____ Z#: _____

SUPERINTENDEND SIGNATURE: _____

Comments:

Part 2- For any AR (Action required) in PART 1, describe below: action required, action taken, date, and time of action. Attach additional sheets if necessary. If more than one action is required, number each AR.

[illegible]

The data in this log is required by NMED Title V Operating Permit (Air Quality) and must be maintained on site for a minimum of 5 years.
41-20-001.2 Rev. 1 Approval Date: 01/12/2016



Logistics Division
Maintenance Operating Instruction
Asphalt Batch Plant Operations
41-20-001.3: ASPHALT BATCH PLANT PM INSPECTION & LUBRICATION CHECKLIST

	PM DATE:	NEXT SCHEDULED PM DATE:		
TA- _____	BLDG- _____	EQUIP. ID: _____	PM #: _____	
Place a Checkmark under "S" if the condition is SATISFACTORY or "U" if the condition is UNSATISFACTORY. Note actions required or general remarks in "Comments" as applicable. Mark "N/A" under comments if not applicable. Advise the foreman or supervisor of problems involving imminent danger.				
ASPHALT BATCH PLANT PREVENTATIVE MAINTENANCE INSPECTION AND LUBRICATION				
STEP	ACTION / DESCRIPTION	S	U	Comments
1.0	PRE-MAINTENANCE INSTRUCTIONS			
1.1	Before beginning maintenance, follow applicable LO/TO procedures at the main control panel			
2.0	ASPHALT PLANT MAINTENANCE			
2.1	Perform preventative maintenance of the asphalt plant equipment semi-annually.			
3.0	LUBE/INSPECTION POINTS			
	FEEDER			
3.1	8 Pillow Blocks			
3.2	1 Gear Box (Check Oil) <i>Add if Necessary</i>			
3.3	2 Wheel bearings			
3.4	Clear away stones and dust build up from any moving parts			
	CONVEYOR BELT			
3.5	4 Pillow Blocks			
3.6	1 Gear Box (Check Oil) <i>Add if Necessary</i>			
3.7	Clear away stones and dust build up from any moving parts			
	DRIER			
3.8	12 Pillow Blocks			
3.9	1 Gear Box (Check Oil) <i>Add if Necessary</i>			
3.10	Clear away stones and dust build up from any moving parts			
3.11	Inspect the drum roller drive chain for mechanical integrity. Replace or repair any broken parts			
3.12	Lube chain and idle gear			
	HOT ELEVATOR			
3.13	2 Pillow Blocks			
3.14	2 Flat Bearings			
3.15	1 Gear Box (Check Oil) <i>Add if Necessary</i>			
3.16	Clear away stones and dust build up from any moving parts			
3.17	Inspect the elevator chain under the buckets for proper tension and mechanical integrity. Ensure no broken parts or damage exists. Adjust/replace if necessary			
3.18	Inspect elevator buckets for aggregate buildup and metal wear. Repair and/or clean parts if necessary.			
3.19	Inspect elevator bottom for excessive aggregate buildup. Remove and/or clean if evident.			
	SHAKER AND SCREENING PLANT			
3.20	2 Bearing on Electric Motor			
3.21	1 Gear Box (Check Oil) <i>Add if Necessary</i>			
3.22	Screen Cloth Tension			
3.23	Inspect even material feed and distribution into screen.			
3.24	Tighten Loose Bolts			
3.25	Drive Belt Tension			
3.26	Support Springs			
3.27	Clear away stones and dust build up from any moving parts			



Maintenance & Site Services
Maintenance Operating Instruction
Asphalt Batch Plant Operations
41-20-001.3: ASPHALT BATCH PLANT PM INSPECTION & LUBRICATION CHECKLIST

3.28	Inside the screen, inspect the feed and discharge wear plates for excessive buildup and wear. Repair and/or clean as needed			
ASPHALT BATCH PLANT PREVENTATIVE MAINTENANCE INSPECTION AND LUBRICATION				
STEP	ACTION / DESCRIPTION	S	U	Comments
	<i>PUG MILL</i>			
3.29	4 Pillow Blocks			
3.30	1 Gear Box (Check Oil) <i>Add if Necessary</i>			
3.31	Clear away stones and dust build up from any moving parts			
3.32	Inside the mill, inspect the 2 paddle assemblies and wear plates under the paddles for excessive buildup and wear. Repair and/or clean as needed			
	<i>BAG HOUSE</i>			
3.33	3 Flat Bearings			
3.34	4 Gear Box Points (Check Oil) <i>Add if Necessary</i>			
	<i>EXHAUST FAN</i>			
3.35	2 Pillow Blocks			
3.36	2 Fittings on Electric Motor			
	<i>DAMPER CONTROL</i>			
3.37	4 Flat Bearings			
	<i>AIR COMPRESSOR</i>			
3.38	Clean Air Filter			
3.39	Check Oil Level <i>Add if Necessary</i>			
	<i>DUST RETURN SCREW</i>			
3.40	1 Gear Box (Check Oil) <i>Add if Necessary</i>			
	<i>HOT ASPHALT PUMP</i>			
3.41	2 Fittings on Electric Motor			
	<i>HOT OIL PUMP AND ELECTRIC MOTOR</i>			
3.42	2 Fittings on Electric Motor			
	<i>PROPANE PUMP</i>			
3.43	2 Fittings			
4.0	<i>POST-MAINTENANCE INSTRUCTIONS</i>			
4.1	After completing maintenance, follow applicable LO/TO procedures at the main control panel			

REMARKS / ACTION REQUIRED:

VERIFICATION

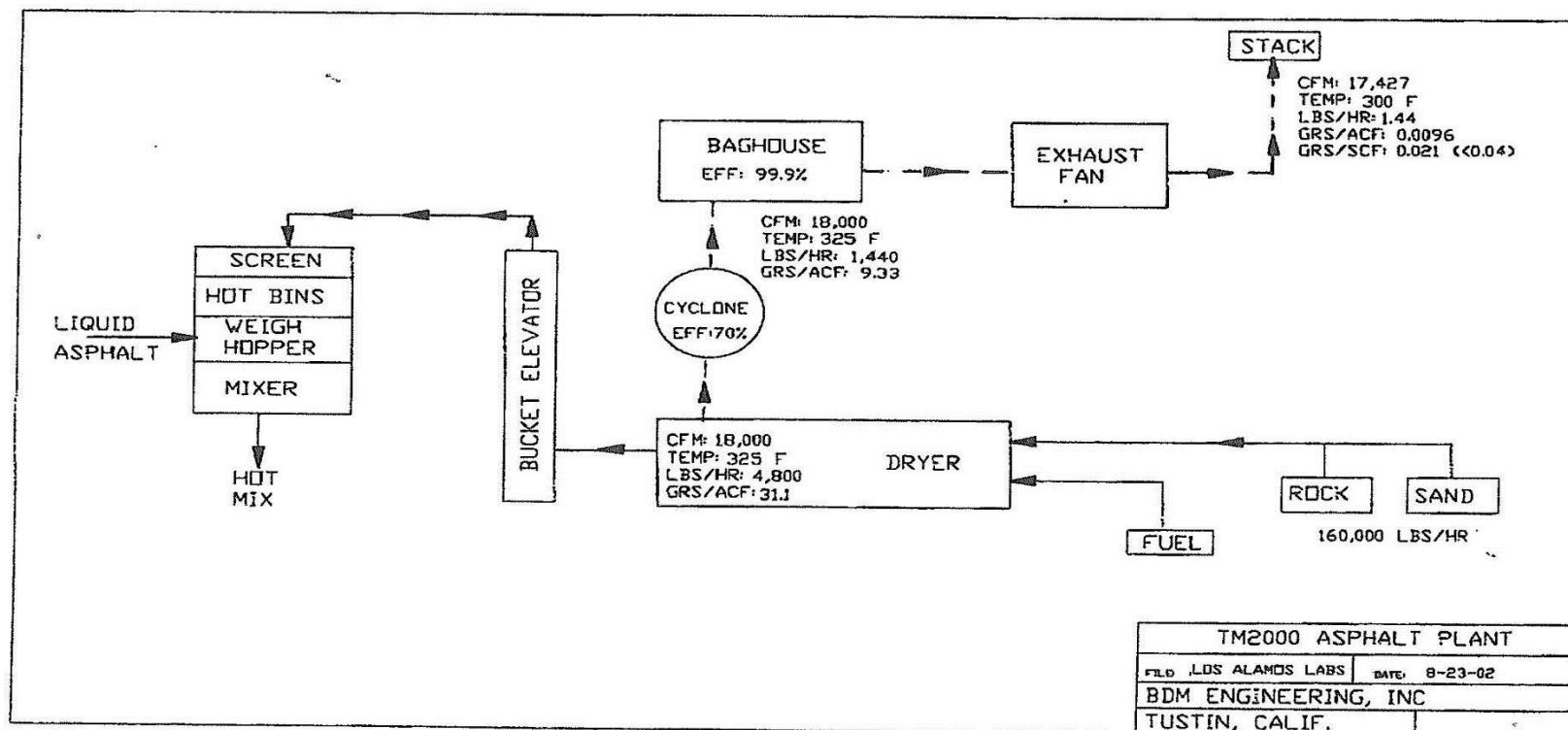
CRAFT NAME:	Z-NUMBER	DATE
CRAFT SIGNATURE:		
SUPERINTENDENT NAME:	Z-NUMBER	DATE
SUPERINTENDENT SIGNATURE:		



Logistics Division
 Maintenance Operating Instruction
Asphalt Batch Plant Operations
41-20-001.4: ASPHALT BATCH PLANT CALIBRATION COMPLIANCE

	CALIBRATION DATE:	NEXT CALIBRATION DATE:	
<p>Place a Checkmark under "S" if the condition is SATISFACTORY or "U" if the condition is UNSATISFACTORY. Note actions required or general remarks in "Comments" as applicable. Mark "N/A" under comments if not applicable. Advise the foreman or supervisor of problems involving imminent danger.</p>			
CALIBRATE PLANT SCALES			
TA- _____ BLDG- _____ EQUIP. ID: _____		PM #: _____	
ACTION	S	U	Comments
Calibrate load scales for batched asphalt produced. Calibrate and adjust weight indicator to accuracy of 0.5% of the maximum allowable load in accordance with the Federal Motor Carrier Safety Administration (FMCSA) publication.			
CALIBRATE LOAD SENSORS			
TA- _____ BLDG- _____ EQUIP. ID: _____		PM #: _____	
ACTION	S	U	Comments
Calibrate load sensors for aggregate using certified weights (<i>i.e., 1000 lb weight</i>). Calibrate and adjust weight indicator (<i>tolerance +/- 3%</i>).			
CALIBRATE ASPHALT FLOW METER			
TA- _____ BLDG- _____ EQUIP. ID: _____		PM #: _____	
ACTION	S	U	Comments
Obtain a <i>calibrated</i> 5 gallon container Set up output of pipe. Turn on pump; measure pipe output (5 gal) and adjust as necessary till control panel output and pipe output are reading the same. Repeat as necessary until results are within tolerances (+/- 1%)			
CALIBRATE ASPHALT THERMOMETERS			
TA- _____ BLDG- _____ EQUIP. ID: _____		PM #: _____	
ACTION	S	U	Comments
Calibrate thermometer in asphalt feed line, near the charging valve at the mixer unit. Thermometer shall be approved with a range from 100°F to 400°F calibrated with control unit to allowable tolerances.			
Calibrate thermometer near discharge chute to automatically register the temperature of heated aggregates or mix, as necessary. Thermometer shall be calibrated with control unit to allowable tolerances.			
VERIFICATION			
CRAFT NAME:	Z-NUMBER	DATE	
CRAFT SIGNATURE:			
<hr/>			
SUPERINTENDENT NAME:	Z-NUMBER	DATE	
SUPERINTENDENT SIGNATURE:			

ATTACHMENT 5: ASPHALT BATCH PLANT FLOW DIAGRAM



Effective Date: September 5,
2013Next Review Date: August 5,
2015**Environment, Safety, Health Directorate****Environmental Protection – Compliance Programs
Quality Procedure****Installing, Setting Up, and Operating ISCO Samplers
for the MSGP****Reviewers:**

Name: Melanie Lamb	Organization: ADESH-OIO, QA Specialist	Signature: Signature on file	Date: 8/28/13
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Derivative Classifier: ☐ **Unclassified** ☒ **DUSA ENVPRO**

Name: Ellena Martinez	Organization: ADESH-OIO	Signature: Signature on file	Date: 8/28/13
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Approval Signatures:

Subject Matter Expert: Holly Wheeler	Organization: ENV-CP	Signature: Signature on file	Date: 8/29/13
Responsible Line Manager: Michael Saladen	Organization: ENV-CP Team Lead	Signature: Signature on file	Date: 8/29/13
Responsible Line Manager: Anthony Grieggs	Organization: ENV-CP Group Leader	Signature: Signature on file	Date: 9/5/13

CONTROLLED DOCUMENT

This copy is uncontrolled. The controlled copy can be found on the ENV Division Web page.

Users are responsible for ensuring they work to the latest approved version.

Installing, Setting Up, and Operating ISCO Samplers for the MSGP	No. ENV-CP-QP-045.1	Page 2 of 26
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History of Revisions

Document Number <i>[Include revision number, beginning with Revision 0]</i>	Effective Date <i>[Document Control Coordinator inserts effective date]</i>	Description of Changes <i>[List specific changes made since the previous revision]</i>
0	03/11	New Document.
1	04/13	Biennial Review and Revision
2	09/13	Biennial Review and Revision

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1.0 PURPOSE

This procedure describes the installation, setup, programming, and operation of Teledyne ISCO Avalanche and Model 3700 full-size portable automated samplers used to collect storm water runoff samples for the Multi-Sector General Permit (MSGP).

2.0 SCOPE

This procedure applies to all ENV-CP technical staff and contractor personnel conducting installation, operation, maintenance and sampling activities at single stage stations used for monitoring under the MSGP.

2.1 HAZARD REVIEW

Hazards in the work described in this procedure are controlled thorough site specific [IWDs](#). The hazard level of the activities in this procedure is **moderate**.

3.0 RESPONSIBILITIES

The following personnel require training before implementing this procedure:

- This procedure applies to all ENV-CP MSGP storm water compliance personnel conducting installation, operation, maintenance and sampling activities at MSGP single stage monitoring stations.

The training method for this procedure is “self-study” (reading). For ENV-CP staff, this is documented in accordance with [ENV-DO-QP-115, Personnel Training](#). Other participating groups may require training documentation pursuant to local procedures.

Actions specified within this procedure, unless proceeded with “should” or “may,” are to be considered mandatory (i.e., “shall”, “will”, “must”).

3.1 PREREQUISITES

Personnel performing this procedure will be familiar with the most current versions of the following procedures and operation manuals:

- ENV-CP MSGP Sampling and Analysis Plan for the current monitoring year
- Manual for Teledyne ISCO Sampler Model 3700.
- Manual for Teledyne ISCO Avalanche refrigerated sampler
- Facility/FOD specific IWDs for the MSGP

4.0 DOCUMENT CONTROL/RECORDS MANAGEMENT

The following records are generated as a result of this procedure and are maintained in accordance with [ENV-DO-QP-110, Records Management Program](#) with the originals on file at ENV-CP offices:

Completed work orders for:

Installing, Setting Up, and Operating ISCO Samplers for the MSGP	No. ENV-CP-QP-045.1	Page 5 of 26
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- LANL MSGP ISCO Sampler Installation Form 045-1(Attachment 1)
- LANL MSGP ISCO Sampler Activation Form 045-3 (Attachment 6)
- LANL MSGP ISCO Sampler Winter Shutdown 045-5 (Attachment 9)
- LANL MSGP ISCO Sampler Decommission 045-6 (Attachment 10)

5.0 WORK PROCESSES

The discharge of storm water from industrial facilities at Los Alamos National Laboratory (LANL, the Laboratory) is regulated under the National Pollutant Discharge Elimination System (NPDES) *Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity* (MSGP). The current MSGP became effective on September 29, 2008 pursuant to 73 FR 56572. The Laboratory's MSGP permit coverage (Permit Tracking No. NMR05GB21) requires storm water quality monitoring to evaluate the overall effectiveness of control measures. ISCO samplers coupled with Model 1640 sampler actuators are used at MSGP Program monitoring stations. Refrigerated (Avalanche) and/or non-refrigerated (Model 3700) samplers may be deployed; and may be configured with multi-battery arrays, solar panels, and surge protectors.

5.1 EQUIPMENT AND TOOLS

Ensure the following equipment is available in the field vehicle:

- Copy of this procedure
- Copy of the appropriate Integrated Work Document(s) (IWDs)
- Charged spare battery(ies)
- Battery voltage tester
- Spare tubing (pump, suction, discharge types, sampler specific)
- Spare sample bottles
- Shovels
- Wooden stakes
- Plastic wire "zip" ties
- Cell phone (only government cell phones with the battery removed are allowed in secure areas)
- Appropriate tools (including insulated tools for electrical work) in tool box
- Issued Work Orders and associated forms
- Necessary access and station keys
- Ziploc® plastic storage bags
- Tape measure
- Sturdy hiking boots or steel toed shoes with soles that grip

The time on the ISCO sampler clock must be verified upon arrival at the site. The ISCO clocks must be set to Mountain Standard Time (MST) at all times, with no daylight saving time adjustment. Cellular phones can be used to verify the time.

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5.2 ISCO SAMPLER INSTALLATION

Step	Action
1	Work Orders are issued for all field operations at individual MSGP monitored outfalls. Obtain the Work Order with the LANL MSGP ISCO Sampler Installation Form 045-1 (Attachment 1). The Work Order specifies the MSGP outfall and target date for the work to be performed. An outfall-specific equipment list with specifications and configuration settings is provided on each Work Order.
2	<p>Deploy the ISCO sampler and charged battery on level ground above the flood plain. Often, large tool/storage boxes (Greenlee™) are used for equipment protection in the field.</p> <p>NOTE: These boxes are locked. Therefore, a key should be obtained prior to accessing them.</p> <p>The sampler should be as level as possible to allow effective sample collection. Verify/record the ISCO sampler serial number and the battery tracking number(s) on the Work Order.</p>
3	Install the separate protective battery box for the charged battery (follow manufacturer's instructions).
4	<p>Determine the bottle set configuration from the equipment list on the Work Order.</p> <ul style="list-style-type: none"> • If a Model 3700 sampler is indicated, install the correct distributor arm (has either "12" or "24" embossed on bottom at outlet). • For an Avalanche sampler, attach either the discharge tube guide (single bottle configuration) or the distributor arm (multi-bottle configuration) and the appropriate bottle adapter plate. If an adapter plate is not available, the inside of the sampler may need to be configured by hand (i.e., add form) to prevent bottles from moving around during a sampling event. • Install required bottles and retaining devices in the sampler base. • Check that the end of the discharge tubing does not extend below the bottom face of the distributor arm (where it could snag the bottle tops and jam as the arm advances through the bottle sequence). • Remove and place the clean bottle caps in a new Ziploc® plastic bag.
5	Attach a length (in whole foot increments) of 3/8-inch diameter Teflon suction line to the sampler intake line and anchor as needed for the Outfall location. Measure and record (for later programming steps) the tubing length used. Route the sample tubing downslope from the sampler to the intake point so that there is a continuous slope with no valleys that could retain water between sample intervals.
6	<p>Install the actuator:</p> <ul style="list-style-type: none"> • Anchor a stake to the channel bottom in the main flow of the outfall discharge. • Attach the sampler intake tube and the 1640 liquid level detector (actuator) to the stake. • Position the actuator at least ½ inch above the intake tube to ensure there is enough water to submerge the intake when the sampler is activated. • Connect the actuator to the sampler using the cable connector provided by the manufacturer. • If necessary, use a gravel bag to create a small pooling area for the actuator and sampler intake to sit in. <p>The actuator height above the channel bottom is established using professional judgment. For example, the intake may be positioned 1 inch or less above the bottom of low-flowing wide channels, but higher than 1 inch in a high-flowing narrow channel.</p>

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7	<p>NOTE: You must be a trained electrical worker and have completed all required courses in Training Plan #2876 to conduct this step.</p> <p>Connect the sampler to the power source, either a 12 Volt 110 A-h deep cycle lead acid battery or other power source such as a multi-battery array coupled with a solar panel, as appropriate. Record the battery tracking numbers in the equipment list section of the Work Order. (Refer to Attachments 2 and 3 for the wiring diagram for Avalanche sampler installation.)</p>
---	---

5.3 CONFIGURING ISCO 3700 SAMPLERS

Step	Action
1	When a new ISCO 3700 sampler is being installed, configure the sampler in accordance with the steps contained in this section. Follow the project-specific configuration settings as indicated on the Work Order and given in Attachment 4, ISCO 3700 Configuration Settings.
2	Turn on the sampler by pressing the “On” button.
3	Press the “Enter/Program” button.
4	Select “Configuration”.
5	Set the configuration parameters in accordance with the guidance in Attachment 4, ISCO 3700 Configuration Settings. After each selection is made, press the “Enter” button to allow the next configuration parameter to be displayed on the screen.
6	<p>After the programming is complete, select “Run diagnostics” and press “Enter” to run the system diagnostic test. The diagnostic tests include the following:</p> <ul style="list-style-type: none"> • RAM and ROM test • LCD test • Pump test (“OFF/ON” number should be between 50 and 200 for a successful test) • Distributor test -- select “YES” to run test. Test will move the distributor to Position 24 and then return it to Position 1.
7	Following the diagnostic tests, “Reinitialize Controller” will be displayed. Select “No” and press “Enter.” <u>Do not select “Yes.”</u> If “Yes” is selected, the sampler will reset a number of configuration and program settings to the factory default values.
8	To leave the configuration sequence, use the “Exit configuration” and press “Yes” or press the “Enter/Program” key.

5.4 PROGRAMMING ISCO 3700 SAMPLERS

Step	Action
1	Follow the steps in this process to program a new ISCO or to confirm the program settings are correct for a specific location. Follow the project-specific program settings as indicated on the

	work order and given in Attachment 5, ISCO 3700 Program Sequence.
2	Turn on the sampler by pressing the “ON” button
3	Press the “Enter/Program” button.
4	Select “Program”.
5	Set the program parameters in accordance with the guidance on Attachment 5, ISCO 3700 Program Sequence. After each selection is made, press the “Enter” button to allow the next configuration parameter to be displayed on the screen.
6	Set the switch on the actuator to “Latch.”
7	NOTE: You must be a trained electrical worker and have completed all required courses in Training Plan #2876 to conduct this step.
8	Complete the responses for the sampler installation tasks listed on the Work Order. Sign and date the Work Order and ensure all items contained within it have been completed.

5.5 ACTIVATING ISCO 3700 SAMPLERS

Step	Action
1	<p>Follow the steps in this section when a Work Order is received to activate a sampler (generally at the beginning of a field season or at the beginning of the next quarter after the last quarterly monitoring sample was obtained).</p> <p>Note: The MSGP monitoring quarters are as follows</p> <ul style="list-style-type: none"> • April 1 through May 31 • June 1 through July 31 • August 1 through September 30, and • October 1, through November 30.
2	<p>Obtain the Work Order with the LANL MSGP Sampler Activation Form 045-3 (Attachment 6). The Work Order specifies the MSGP Outfall and target date for the work to be performed. An Outfall-specific equipment list with specifications and configuration settings is provided on each Work Order.</p> <p>NOTE: You must be a trained electrical worker and have completed all required courses in Training Plan #2876 to conduct this step.</p> <p>If not already installed, install and hook up the charged battery.</p> <p>If a battery is already in place, use the voltage tester to check for minimum voltage of 11.7 volts. If the voltage is lower, replace the battery with a charged battery.</p>
3	Turn the sampler ON. “Program halted” will be displayed; press the Enter/Program button to enter program/configure sequence.
4	Check the configuration and programming parameters to ensure they are still correct for the specific installation (see Attachment 4 and 5 for the correct parameters).
5	Check integrity and condition of sampler tubing, actuator, wiring, etc., to ensure sampler will properly collect a sample.

6	To test the integrity of the tubing, press “Pump forward” to turn on pump and test for suction at the tubing intake. Press “Stop” to turn off pump. If no suction is felt at the intake, check the integrity of the tubing and replace as necessary.
7	To activate the sampler, press “Start sampling” and “Enter” twice.
8	Ensure the sampler indicates “Sampler Inhibited”.
9	Complete the responses for the sampler activation tasks listed on the Work Order. Sign and date the Work Order and ensure all items contained within it have been completed.

5.6 CONFIGURING ISCO AVALANCHE SAMPLERS

Step	Action
1	When a new ISCO Avalanche sampler is being installed, configure the sampler in accordance with the steps contained in this section. Follow the project-specific configuration settings as indicated on the work order and given in Attachment 8, ISCO Avalanche Configuration Settings.
2	Turn on the sampler by pressing the “Standby” key.
3	From the main menu, select Other Functions, to access the menus and select options given in Attachment 8.
4	Set the configuration parameters in accordance with the guidance on Attachment 8, ISCO Avalanche Configuration Settings.
5	After the programming is complete, select “Run diagnostics” and press “Enter” to run the system diagnostic test. These include the following: <ul style="list-style-type: none"> • RAM and ROM test • Pump test (“ON/OFF” ratio should be between 0.80 and 1.25 for a successful test) • Distributor test -- select “YES” to run test. Test will move the distributor to Position 14 and then return it to Position 1.
6	Following the diagnostic tests, “Reinitialize Controller” will be displayed. Select “No” and press the “Enter” key. (If “Yes” is selected, the sampler will reset a number of configuration and program settings to the factory default values).
7	If a 700 series module (e.g., pH) is to be installed, consult the equipment manufacturer’s manual for installation instructions. <u>NOTE:</u> The pH module is only required at the Asphalt Batch Plant.
8	Complete the responses for the sampler installation tasks listed on the Work Order. Sign and date the Work Order and ensure all items contained within it have been completed.

5.7 PROGRAMMING ISCO AVALANCHE SAMPLERS

Step	Action
1	Follow the steps in this process to program a new ISCO or to confirm the program settings are correct for a specific location and bottle configuration. Follow the project-specific program settings as indicated on the work order and given in Attachment 8, ISCO Avalanche Program Sequence.
2	Turn on the sampler by pressing the “Standby” key.
3	Press the “Program” button.
4	Select the current program to review settings, or choose “Select New Program” to create a new program with different settings.
5	Select the current program to review settings, or choose “Select New Program” to create a new program with different settings.
6	At the prompt “Programming complete, run this program now?” , select “Yes” if sampler is scheduled to be active, and “No” if sampler is in stand down.
7	Set switch on actuator to “Latch.”
8	Complete the responses for the sampler installation tasks listed on the Work Order. Sign and date the Work Order and ensure all items within it have been completed.

5.8 ACTIVATING ISCO AVALANCHE SAMPLERS

Step	Action
1	<p>Follow the steps in this section when a Work Order is received to activate a sampler (generally at the beginning of a field season or at the beginning of the next quarter after the last quarterly monitoring sample was obtained).</p> <p>Note: The MSGP monitoring quarters are as follows</p> <ul style="list-style-type: none">• April 1 through May 31• June 1 through July 31• August 1 through September 30, and• October 1, through November 30.
2	<p>NOTE: You must be a trained electrical worker and have completed all required courses in Training Plan #2876 to conduct this step.</p> <p>If not already installed, install and hook up the charged battery(ies).</p> <p>If a battery is already in place, use the voltage tester to check for minimum voltage of 11.7 volts. If the voltage is lower, replace the battery with a charged battery.</p>
3	Turn on sampler power. From the main menu, select “Program” and the “Enter” key to enter programming sequence, and “Other Functions” to enter the configuration settings.
4	Check the programming/configuration parameters to ensure they are still correct for the specific installation – follow the two preceding sections for the steps and see Attachment 7 and 8 for the correct parameters.
5	Check integrity and condition of sampling tubes, actuator, wiring, etc., to ensure sampler

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	will properly collect a sample.
6	From the main menu, select “Other Functions” ► “Manual Functions” ► “Operate Pump” to perform a manual suction test. To test the integrity of the tubing, press “Pump forward” to turn on pump and test for suction at the tubing intake. Press “Stop” to turn off pump. If no suction is felt at the intake, check the integrity of the tubing and replace as necessary.
7	Reset the actuator by toggling the switch to “Reset” then back to “Latch.” To activate the sampler, ensure the correct program name is displayed on the main menu and select “Run”.
8	Ensure the sampler indicates “Program Disabled”.
9	Note: The Avalanche refrigeration system is active any time the controller is powered. This is true for all states (including OFF), except for the time between entering RUN and the completion of the first sample, and when the pump is running. To conserve power, the Avalanche assumes that during this time there is no sample liquid to cool.
10	Ensure that all items on the Work Order have been completed.

5.9 STANDING DOWN OR WINTERIZING SAMPLERS

Step	Action
1	Follow the steps in this section when a Work Order is received to turn off (“stand down”) a sampler (generally at the end of a field season, which is November 30, or to disable a sampler for a certain time period after a sample was collected). Fill out the LANL MSGP ISCO Sampler Winter Shut-Down Form in Attachment 9.
2	ISCO 3700: Turn off power. ISCO Avalanche: The Avalanche refrigeration system is active any time the controller is powered. This is true for all states (including OFF), except for the time between entering RUN and the completion of the first sample, and when the pump is running. To conserve power, the Avalanche assumes that during this time there is no sample liquid to cool. NOTE: To ensure that the refrigeration system does not activate during an intended stand down, disconnect the sampler from the power source.
3	Remove the battery and return it to the storage compound at TA-64 or other specified location identified by ENV-CP MSGP stormwater compliance personnel. Store cables inside the Greenlee™ box. If the actuator and tubing are not contained within conduit, disconnect these and place them in the box. Close sampler. Avalanche samplers must not be left in place for the winter, and are required to be returned to ENV-CP’s storage shed.
4	Ensure that all items on the Work Order have been completed.

5.10 SAMPLER RESET AND RE-INITIALIZATION AFTER SAMPLE COLLECTION

Step	Action
1	Follow ENV-CP-QP-047, Inspecting Storm Water Runoff Samplers and Retrieving Samples for the MSGP for collecting samples from an ISCO and installing new bottles so it is ready to collect new samples.
2	<p>After collecting samples and resetting the sampler, follow instructions on sample collection Work Order, the updated sample tracking log or confer with the MSGP Project Lead regarding whether the sampler should be disabled.</p> <p>If sampler is to be deactivated, follow the steps specific to each sampler provided in the preceding section.</p> <p>If an ISCO 3700 sampler is to be left activated, reset the actuator by toggling the switch to “Reset” then back to “Latch”, and press “Start sampling” and “Enter” twice. Ensure the sampler display indicates “Sampler Inhibited”:</p> <p>If an ISCO Avalanche sampler is to be left activated, reset the actuator by toggling the switch to “Reset” then back to “Latch.” From the main menu, verify the correct program name is displayed and select “Run.” Ensure the sampler display indicates “Program Disabled.”</p>

5.11 REMOVING A SAMPLER

Step	Action
1	Follow the steps in this process when a Work Order is received to un-install or remove a sampler. Fill out the LANL MSGP ISCO Sampler Decommission Form in Attachment 10.
2	Disconnect all equipment and remove it from the site. Return the equipment to the ENV-CP Storage Shed or other location specified by MSGP storm water compliance personnel.
3	Dispose of all equipment components that contacted samples (tubing, bottles, etc.) as waste according to applicable waste management procedure. For assistance, contact the Waste Management Coordinator for TA-59.
4	Ensure that all items on the Work Order have been completed.

6.0 REFERENCES

[ENV-DO-QP-110, Records Management Program](#)

[ENV-DO-QP-115, Personnel Training](#)

[ENV-CP-QP-047, Inspecting Storm Water Runoff Samplers and Retrieving Samples for the MSGP](#)

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7.0 DEFINITIONS

ENV-CP: Environmental Protection Division, Compliance Programs Group

Grab Sample: A single sample collected at an NPDES outfall (using approved EPA methods) at a particular time that represents the composition of the storm water at that time and place.

IWD: Integrated Work Document

MSGP: Multi-Sector General Permit

MST: Mountain Standard Time

NPDES: National Pollutant Discharge Elimination System

8.0 ATTACHMENTS

Attachment 1- LANL MSGP ISCO Sampler Installation Form 045-1

Attachment 2- Wiring Diagram for Avalanche Sampler

Attachment 3 – Battery Photovoltaic Connection Wiring

Attachment 4 - ISCO 3700 Configuration Settings

Attachment 5 – ISCO 3700 Program Sequence

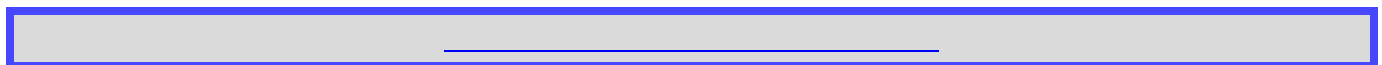
Attachment 6 – LANL MSGP ISCO Sampler Activation Form 045-3

Attachment 7 – ISCO Avalanche Configuration Settings

Attachment 8 – ISCO Avalanche Program Sequence

Attachment 9 – LANL MSGP ISCO Sampler Winter Shut-Down Form 045-5

Attachment 10 – LANL MSGP ISCO Sampler Decommission Form 045-6



ATTACHMENT 1- LANL MSGP ISCO SAMPLER INSTALLATION FORM 045-1

ENV-QP-045.0

LANL Multi-Sector General Permit
ISCO Sampler Installation Form

Form 045-1 (3/2011)

Outfall: **54-G-4 : 54-PAD10E**Project ID: **P-MSGP-2443**Work Order ID: **MSGP-31193**Target Date: **4/1/2013**Project: **MSGP 2013 Sampler Install**Reason: **MSGP 2013 Sampler Installation**

Date: _____ Time: _____

Name/I# _____

Name/I# _____

Lead Signature: _____

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

Verify the equipment list below. Make corrections as required and fill in missing information (e.g., serial numbers).

Equipment	Manufacturer	Model	Serial No.	Specification	Configuration
Actuator	ISCO	1640	210J01660		
Charge Controller	Xantrex	C-12	B20037667		
ISCO 3700 Sampler	Teledyne	3700	198H00978	Bottle Set	12c- 1 1L Glass, 11 1L Poly
ISCO 3700 Sampler	Teledyne	3700	198H00978	Program	Time / Multiplex no delay
ISCO Avalanche Sampler	Teledyne	Avalanche	210J00066	Bottle Set	14 950 mL Poly
ISCO Avalanche Sampler	Teledyne	Avalanche	210J00066	Program	1-Part, 14 Bottles, 950 mL
Pb-Acid Battery	Universal	110 A-h	MSGP-110-0311-07	Voltage	> 11.7 V
Pb-Acid Battery	Universal	110 A-h	MSGP-110-0311-08	Voltage	> 11.7 V
Pb-Acid Battery	Universal	110 A-h	MSGP-110-0311-09	Voltage	> 11.7 V
Solar Panel	SunWize	SW-S85P	11004467		

ISCO Sampler Tasks

Note: If "No" provide correct information or explanation.

Deploy battery(ies) if not listed in equipment list above. Record serial numbers of battery(ies) installed.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Deploy Avalanche sampler matching serial number listed in equipment list above for installation.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Deploy and install pH and Temperature Probe listed in equipment list above and probe saturation reservoir.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Refer to the wiring diagram in ENV-QP-045.0 for the solar panel, battery configuration, and type of sampler being installed. Has wiring been completed according to instructions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is the sampler installed according to steps in ENV-QP-045.0?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is a Greenlee box used?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are electrical connections secure?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Record battery voltage(s). Voltage(s) > 11.7 V ?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is the sampler physically configured for the types and number of bottles specified above (i.e., correct carousel, base, arm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is the sampler programmed correctly per ENV-QP-045.0 for the program / bottle set specified above?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does sampler pass the ISCO diagnostics test ?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does sample tubing pass suction test?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is sampler ON upon departure?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does ISCO display either "Sampler Inhibited" or "Program Disabled"?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Has the actuator switch been reset to "Latch"?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If any maintenance completed, check YES and describe.	<input type="checkbox"/> Yes <input type="checkbox"/> No
If any follow-on maintenance is required, check YES and describe.	<input type="checkbox"/> Yes <input type="checkbox"/> No

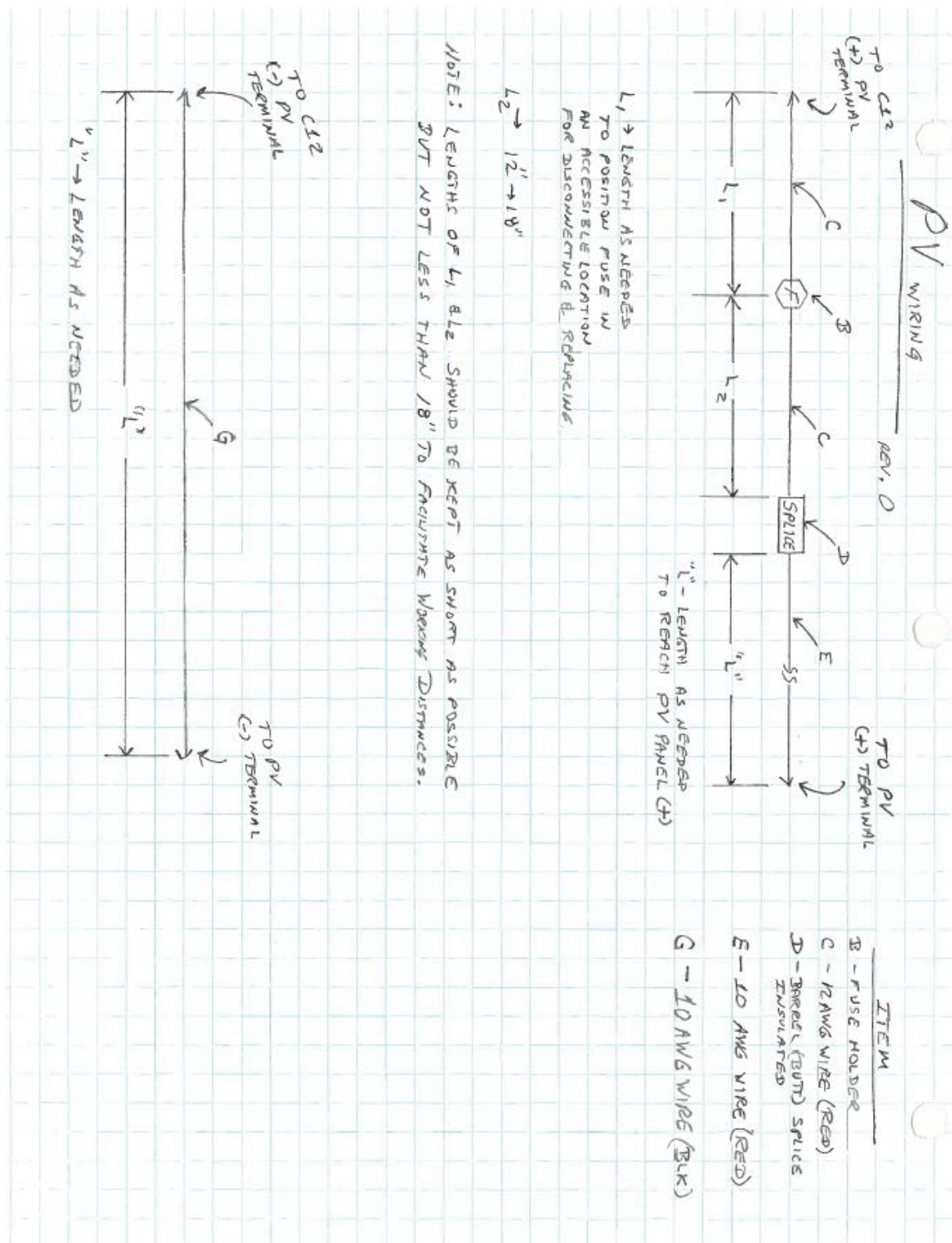
LANL PERSONNEL USE ONLY (Initials and dates)

Accepted _____

Tech QC _____

ENV-RCRA Review _____

ATTACHMENT 3 – BATTERY PHOTOVOLTAIC CONNECTION WIRING



BATTERY CABLE OPTIONS

REV. 0

ITEM

A - TERMINAL LUGS

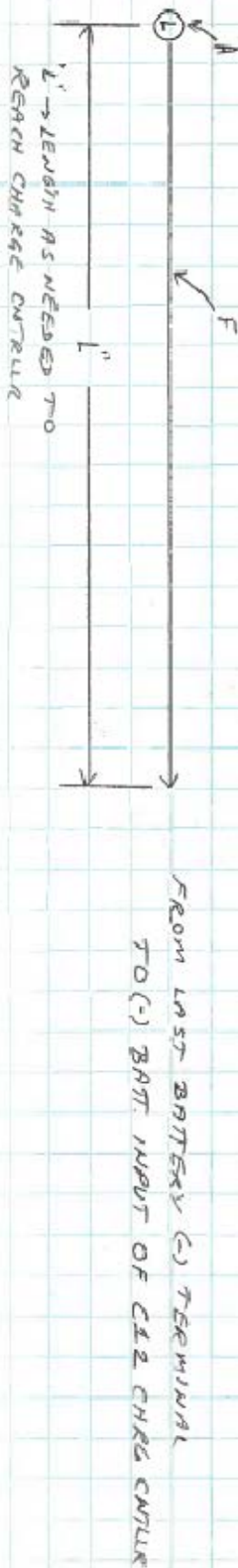
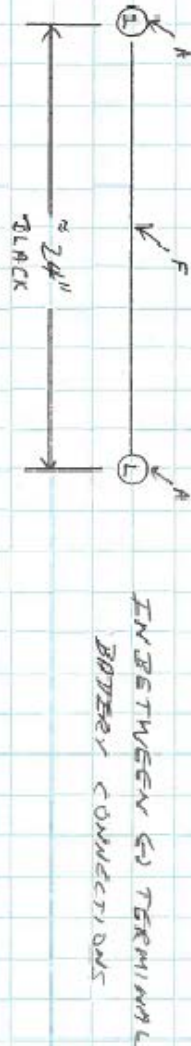
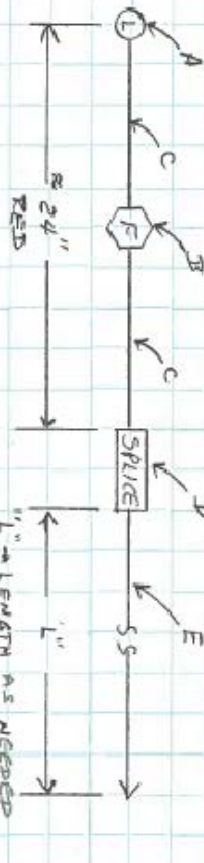
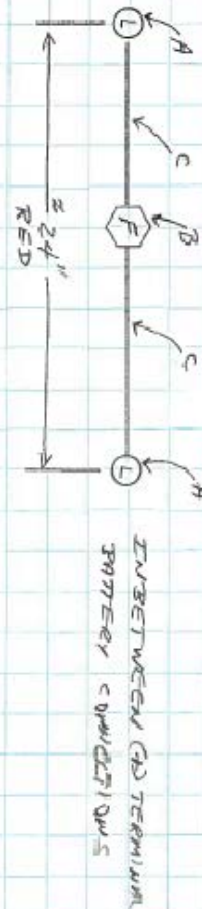
B - FUSE HOLDER

C - 12 AWG WIRE 12" (RED)

D - BARRIER (BUND) SPlice INSULATION

E - 20 AWG WIRE (RED)

F - 12 AWG WIRE 24" (BLACK)



ATTACHMENT 4 - ISCO 3700 CONFIGURATION SETTINGS

Parameter	Storm sampling with multiplex, timed delay	Time sampling with multiplex	Flow sampling with multiplex
Time/ Date	[Set to MST]	[Set to MST]	[Set to MST]
Portable/ Refrig	Portable	Portable	Portable
Bottles	12 or 24	12 or 24	12 or 24
Bottle volume	950 ml	1000 ml	1000 ml
Suction line diameter	3/8 inch	3/8 inch	3/8 inch
Suction line type	Teflon	Teflon	Teflon
Suction line length	X feet	X feet	X feet
Liquid detector	Enable	Enable	Enable
Rinse cycles	0	1	1
Enter Head Manually	No	Yes	Yes
Retry	1	1	1
Program mode	Extended	Basic	Basic
Load program	None	N/A	N/A
Save program as	None	N/A	N/A
Take sample at start time	No	N/A	N/A
Take sample at time switch	No	N/A	N/A
Enter intervals in minutes	1 minute	N/A	N/A
Calibrate sampler	Disable	Enable	Enable
Sampling stop/resume	Disable	N/A	N/A
Start time delay	0 minutes	0 minutes	0 minutes
Master slave	No	No	No
Sample upon Disable	No	No	No
Sample upon enable	No	Yes	Yes
Reset sample interval	Yes	Yes	No
Inhibit countdown	Yes	Yes	No
Event marker	Pulse	Pulse	Pulse
At the beginning of:	Purge	Purge	Purge
Purge counts presample counts	150	100	100
Post sample counts	394	1000	1000
Pump counts	[500,000]	[500,000]	[500,000]
Reset pump counter	No	No	No
Pump counts to warning	500,000	500,000	500,000
Program lock	Disable	Disable	Disable
Sampler ID number is:	[leave blank]	[leave blank]	[leave blank]
Run diagnostics	Yes	Yes	Yes
Test distributor	Yes	Yes	Yes
Re-initialize	No	No	No

ATTACHMENT 5 – ISCO 3700 PROGRAM SEQUENCE

Parameter	Storm sampling with multiplex, timed delay
[Switch on liquid actuator]	Set to “Latch”
Paced sampling	Storm
Time Mode 1st Bottle Group	X-minute delay
Timed Sample Event	1
Bottle per sample event	11 or 23
Sample volume	950 ml
Bottles available	1
2 nd bottle group	Time
2 nd group samples	1-minute delay
Sample interval	1 minute
Bottles per sampling event	1
Sample per bottle	1
Sample volume	950 ml
Enter start time	No

[Programming complete]

Parameter	Time sampling with multiplex
[Switch on liquid actuator]	Set to “Latch”
Time/Flow	Time
Min/Hr	1 min
Multiplex samples	Yes
Bottles/sample or Samples/Bottle	Bottles/ sample
Number of bottles	12 or 24
Sample volume	1000 ml
Suction head	XX Ft
Calibrate sample vol	No
Enter start time	No

[Programming complete]

Avalanche Program Sequence, cont.

Parameter	Time sampling, single bottle composite sample	Time sampling, 1- part program	Time sampling, 2-part program
Two-Part Program			
Part A	N/A	N/A	Yes
Assign bottle	N/A	N/A	1-X of 4 or 14
Pacing	N/A	N/A	Uniform time paced
Time between samples	N/A	N/A	1 minute
Distribution	N/A	N/A	Sequential
Bottles per event	N/A	N/A	1
Switch bottles on	N/A	N/A	Number of samples
Switch bottles every X samples	N/A	N/A	1
Run continuously	N/A	N/A	No
Sample volumes dependent on flow?	N/A	N/A	No
Sample volume	N/A	N/A	Select between 10 ml and full container volume
Enable programmed	N/A	N/A	None
Once enabled, stay enabled	N/A	N/A	Yes
Sample at enable	N/A	N/A	Yes
Sample at disable	N/A	N/A	No
Pauses and resumes	N/A	N/A	0
Part B	N/A	N/A	Yes
Pacing	N/A		Uniform time paced
Time between sample events	N/A	N/A	1 minute
Distribution	N/A	N/A	Sequential
Bottles per event	N/A	N/A	1
Switch bottles on	N/A	N/A	Number of samples
Switch bottles every X samples	N/A	N/A	1
Run continuously	N/A	N/A	No
Sample volumes dependent on flow?	N/A	N/A	No
Sample volume	N/A	N/A	Select between 10 ml and full container volume
Enable programmed	N/A	N/A	No

Installing, Setting Up, and Operating ISCO Samplers for the MSGP	No. ENV-CP-QP-045.1	Page 21 of 26
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Avalanche Program Sequence, cont.

Parameter	Time sampling, single bottle composite sample	Time sampling, 1- part program	Time sampling, 2-part program
Once enabled, stay enabled	N/A	N/A	Yes
Sample at disable	N/A	N/A	No
Sample at enable	N/A	N/A	Yes
Once enabled, stay enabled	N/A	N/A	Yes
Pauses and resumes	N/A	N/A	0
Delay to start	N/A	N/A	No
Reset Sampler			
Switch on liquid actuator	Toggle to “Reset” then back to “Latch”	Toggle to “Reset” then back to “Latch”	Toggle to “Reset” then back to “Latch”
Select Program name	Run	Run	Run

ATTACHMENT 6 – LANL MSGP ISCO SAMPLER ACTIVATION FORM 045-3

ENV-QP-045.0

**LANL Multi-Sector General Permit
ISCO Sampler Activation Form**

Form 045-3 (3/2011)

Outfall: **3-PSP-5 : E121.9-ISCO 12**Project ID: **P-MSGP-830**Work Order ID: **MSGP-12785**Target Date: **4/11/2011**

Project: MSGP Sampler Activation Q1 2011

Reason: MSGP Sampler Activation 2011 Q1

Date: _____ Time: _____

Name/Z#: _____

Name/Z#: _____

Lead Signature: _____

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

Equipment	Manufacturer	Model	Serial No.	Specification	Configuration
Actuator	ISCO	1640		Actuator Height	
ISCO Sampler 12c	Teledyne ISCO	ISCO 3700	198H01553	Bottle Set	12c- 1 1L Poly
ISCO Sampler 12c	Teledyne ISCO	ISCO 3700	198H01553	Program	Time / Multiplex no delay
Pb-Acid Battery				Voltage	> 11.7 V

ISCO Sampler Tasks	Note: If "No" provide correct information or explanation.	
Is the ISCO time delta < 1 min (MST)? If no, record adjustment.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Does sampler pass the ISCO diagnostics test?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Are electrical connections secure?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Record battery voltage(s). Is/are voltage(s) > 11.7 V?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Does ISCO display either "Bottle 1 of X after 1" or "Sampler Inhibited"?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Is bottle set described above installed?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Is recorded height of actuator above channel bottom correct?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
If any maintenance completed, check Yes: Describe.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
If any follow-on maintenance is required, check Yes: Describe.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Is sampler ON upon departure?	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Additional Notes:

LANL PERSONNEL USE ONLY (Initials and dates)		
Accepted	Tech QC	RNV-RCRA Review
_____	_____	_____

ATTACHMENT 7 – ISCO AVALANCHE CONFIGURATION SETTINGS**ISCO Avalanche Configuration Settings**

Parameter	All programs
Maintenance	
Set Clock	[Set to MST]
Pump Tube Alarm	[1,000,000]
Reset pump counter	No
Run diagnostics	Yes
Re-initialize	No
Software Options	
Liquid detector	Liquid detect on
Target temperature	°C
Measurement interval	1 minute
Dual sampler mode	Off
Bottle full detect	Yes
Event mark	Every sample
Duration	3 second pulse at initial purge
Presample purge counts	100
Post sample counts	Dependent on head
Periodic serial output	No
Interrogator connector power	Alarm dial-outs only
Manual Functions	
Grab Sample	Manual option
Calibrate volume	Manual option
Operate pump	Manual option
Move distributor	Manual option
Other Settings/Misc	
Suction line diameter	3/8 inch
Suction line type	Teflon
Program lock	Disable

ATTACHMENT 8 – ISCO AVALANCHE PROGRAM SEQUENCE

Parameter	Time sampling, single bottle composite sample	Time sampling, 1-part program	Time sampling, 2-part program
Program			
Program mode	Extended	Extended	Extended
Program name	COMPOSITE	1-PART (# bottles)	2-PART (# bottles)
Site description	Station number	Station number	Station number
Units (length)	ft	ft	ft
Units (temperature)	°C	°C	°C
Data storage interval	1 minute	1 minute	1 minute
Number of bottles	1	4 or 14	4 or 14
Bottle volume	10000 ml, 4000 ml	2000 ml, 950 ml	2000 ml, 950 ml
Suction line length	X feet	X feet	X feet
Enter Head Manually	Yes	Yes	Yes
Rinse cycles	1	1	1
Retries	1	1	1
One-Part Program			
Pacing	Uniform time paced	Uniform time paced	N/A
Time between samples	Every one minute	Every one minute	N/A
Composite	1 sample	N/A	N/A
Run continuously	No	N/A	N/A
Take X sample(s)	1	N/A	N/A
Distribution	N/A	Sequential	N/A
Volume	Select between 10 ml and full container volume	Select between 10 ml and full container volume	N/A
Sample volumes dependent on flow	No	No	N/A
Enable programmed	None	None	N/A
Once enabled, stay enabled	Yes	Yes	N/A
Sample at enable	Yes	Yes	N/A
Sample at disable	No	No	N/A
Pauses and resumes	0	0	N/A
Delay to start	No	No	N/A

ATTACHMENT 9 – LANL MSGP ISCO SAMPLER WINTER SHUT-DOWN FORM 045-5

ENV-QP-045.0

**LANL Multi-Sector General Permit
ISCO Sampler Winter Shutdown Form**

Form 045-5 (3/2011)

Outfall: **3-PSP-5 : E121.9-ISCO 12**Project ID: **P-MSGP-833**Work Order ID: **MSGP-12803**Target Date: **11/30/2011**

Project: MSGP ISCO Sampler Winter Shutdown

Reason: MSGP Sampler Winter Shutdown 2011

Date: _____ Time: _____

Name/Z#: _____

Name/Z#: _____

Lead Signature: _____

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

Verify the equipment list below. Make corrections as required and fill in missing information (e.g., serial numbers).

Equipment	Manufacturer	Model	Serial No.	Specification	Configuration
Actuator	ISCO	1640		Actuator Height	
ISCO Sampler 12c	Teledyne ISCO	ISCO 3700	198H01553	Bottle Set	12c- 1 1L Poly
ISCO Sampler 12c	Teledyne ISCO	ISCO 3700	198H01553	Program	Time / Multiplex no delay
Pb-Acid Battery				Voltage	> 11.7 V

ISCO Sampler Tasks	Note: If "No" provide correct information or explanation.	
Turn ISCO unit "OFF."	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Place caps securely on bottles in the sample carousel.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Verify equipment list above.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
ISCO 3700 Sampler Units		
Disconnect and remove battery. Transport battery to MSGP stockroom for maintenance and storage.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Place battery cables securely inside Greenlee box or ISCO casing.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Pull up actuator and tubing and store in Greenlee box or ISCO casing.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Avalanche ISCO Sampler Units:		
Disconnect and remove batteries. Transport batteries to MSGP stockroom for maintenance and storage.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Place battery cables securely inside Greenlee box or ISCO casing.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Pull up actuator and tubing and store inside Greenlee box or ISCO casing.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Transport Avalanche sampler to MSGP stockroom for maintenance and storage.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Additional Notes:

LANL PERSONNEL USE ONLY (Initials and dates)

Accepted

Tech QC

ENV-RCRA Review

ATTACHMENT 10 – LANL MSGP ISCO SAMPLER DECOMMISSION FORM 045-6

ENV-QP-045.0

LANL Multi-Sector General Permit ISCO Sampler Decommission Form

Form 045-6 (3/2011)

Outfall: **3-PSP-5 : E121.9-ISCO 12**

Project ID: **P-MSGP-834**

Work Order ID: **MSGP-12804**

Target Date: **7/27/2011**

Project: MSGP Sampler Station Decommission

Reason: MSGP Sampler Decommission

Date: _____ Time: _____
 Name/Z#: _____
 Name/Z#: _____
 Lead Signature: _____
 "I confirm the information as recorded is true, accurate and complete."

Verify the equipment list below. Make corrections as required and fill in missing information (e.g., serial numbers).

Equipment	Manufacturer	Model	Serial No.	Specification	Configuration
Actuator	ISCO	1640		Actuator Height	
ISCO Sampler 12c	Teledyne ISCO	ISCO 3700	198H01553	Bottle Set	12c- 1 1L Poly
ISCO Sampler 12c	Teledyne ISCO	ISCO 3700	198H01553	Program	Time / Multiplex no delay
Pb-Acid Battery				Voltage	> 11.7 V

ISCO Sampler Tasks	Note: If "No" provide correct information or explanation.	
Is equipment list above complete and accurate?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Turn sampler "OFF." Remove bottles from carousel.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Disconnect and remove battery(ies), solar panel, and cables (as applicable).	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Pull up actuator and tubing. Disconnect from sampler unit.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Uninstall Greenlee box, as applicable.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Transport all removed equipment to the MSGP stockroom for maintenance and storage.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Additional Notes:

LANL PERSONNEL USE ONLY (Initials and dates)		
Accepted	Tech QC	ENV-RCRA Review

Effective Date: 11/04/2013

Next Review Date: 11/04/2015

Environment, Safety, Health Directorate**Environmental Protection Division – Compliance Programs Group****Quality Assurance Project Plan****Stormwater Multi-Sector General Permit for
Industrial Activities Program****Reviewers:**

Name:	Organization:	Signature:	Date:
Melanie Lamb	ADESH-OIO, QA Specialist	Signature on File	

Derivative Classifier: ☐ Unclassified ☒ DUSA ENVPRO

Name:	Organization:	Signature:	Date:
Ellena Martinez	ADESH-OIO	Signature on File	

Approval Signatures:

Subject Matter Expert:	Organization:	Signature:	Date:
Holly Wheeler	ENV-CP	Signature on File	
Responsible Line Manager:	Organization:	Signature:	Date:
Mike Saladen	ENV-CP, Team Lead	Signature on File	
Responsible Line Manager:	Organization:	Signature:	Date:
Anthony Grieggs	ENV-CP, Group Leader	Signature on File	

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Users are responsible for ensuring they work to the latest approved version.

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History of Revisions

Document Number <i>[Include revision number, beginning with Revision 0]</i>	Effective Date <i>[Document Control Coordinator inserts effective date]</i>	Description of Changes <i>[List specific changes made since the previous revision]</i>
0	06/03	New Document
1	12/05	Annual review and revision
2	07/07	Annual review, incorporated organizational restructure changes.
3	07/09	Biennial Review and Revision
4	07/09	Biennial Review and Revision
5	10/13	Biennial Review and Revision. New format implemented.

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1.0 QUALITY PROGRAM

LANL will comply with the monitoring requirements as specified by the 2008 National Pollutant Discharge Elimination System (NPDES) Stormwater Multi-Sector General Permit for Industrial Activities. Compliance will be demonstrated through the successful implementation of this project plan and applicable procedures.

Los Alamos National Laboratory (the Laboratory) has established a comprehensive stormwater program for its industrial activities. Historically, the Laboratory operated under the NPDES Baseline General Permit and then under the NPDES 1995, 2000, and 2008 Multi-Sector General Permits. The Laboratory submitted its NOI for 2008 coverage in December 2008.

The 2008 MSGP was issued on September 22, 2008 and became effective on September 29, 2008.

The purpose of this project plan is to ensure compliance with the following:

- 2008 NPDES Multi-Sector General Permit (MSGP) and the Clean Water Act (CWA)
- DOE Order 450.1, *Environmental Protection Program*, and DOE Order 5400.5, *Radiation Protection of the Public and Environment*, which establish environmental protection program policies, requirements, and responsibilities

The Environmental Protection, Environmental Compliance Programs (ENV-CP) Water Quality Team has been tasked with overseeing institutional stormwater compliance related activities at the Laboratory.

1.1 QUALITY PROGRAM PURPOSE

This Quality Assurance Project Plan (QAPP) describes the policies and requirements that ensure MSGP activities are conducted in a consistent, agreed-upon manner.

This QA Project Plan describes the policies and requirements that ensure the MSGP processes are conducted in a consistent, agreed-upon manner. Drivers for the quality plan include:

- DOE Order 414.1C, *Quality Assurance*
- [SD330, LANL Quality Assurance Program](#)

This QA Project Plan (QAPP), including implementing procedures, is a sub-tier document to the [SD330, LANL Quality Assurance Program](#). The following documents provide requirements to ensure that the MSGP Program is operated in accordance with established plans and procedures:

- [SD330, LANL Quality Assurance Program](#)
- QA Project Plan for the MSGP (this document)
- Implementing procedures

1.2 ORGANIZATION

ENV-CP is responsible for compliance oversight of the Laboratory's MSGP coverage. The Group is organized by teams under the line management direction of the Group Leader. Teams are cross-functional and focus on specific Laboratory water quality responsibilities, deliverables, or

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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

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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*

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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:

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- 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.
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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	<p>Identify opportunities for process improvement, health and safety enhancement, environmental protection, or other improvements of the program's operations.</p> <p>Discuss the identified opportunities with the Project Lead.</p> <p>Ensure issues are reported and corrected in a timely manner.</p>

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*.

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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.

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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.

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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.

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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 *Sector-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

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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

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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	<p>Ensure that all project monitoring requirements are performed in accordance with the MSGP.</p> <p>Review and update the MSGP Sampling and Analysis Plan annually.</p>

	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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 an 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> 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 Action

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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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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.
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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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<p>Review design documents and requests as assigned.</p> <p>Inform the Project Lead of concerns regarding the facility engineering designs.</p>

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	<p>Recommend to Group Leader contracting items and services.</p> <p>Develop acceptance criteria.</p>
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, <i>Los Alamos National Laboratory Quality Assurance Program</i> 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<p>Cooperate with auditors by providing information, data, etc.</p> <p>Implement corrective actions as directed by the Project Lead.</p>

11.0 ATTACHMENTS

Attachment 1- MSGP Program Organization

Attachment 2 – Annual Reporting Form

Attachment 3 – Routine Inspection Form

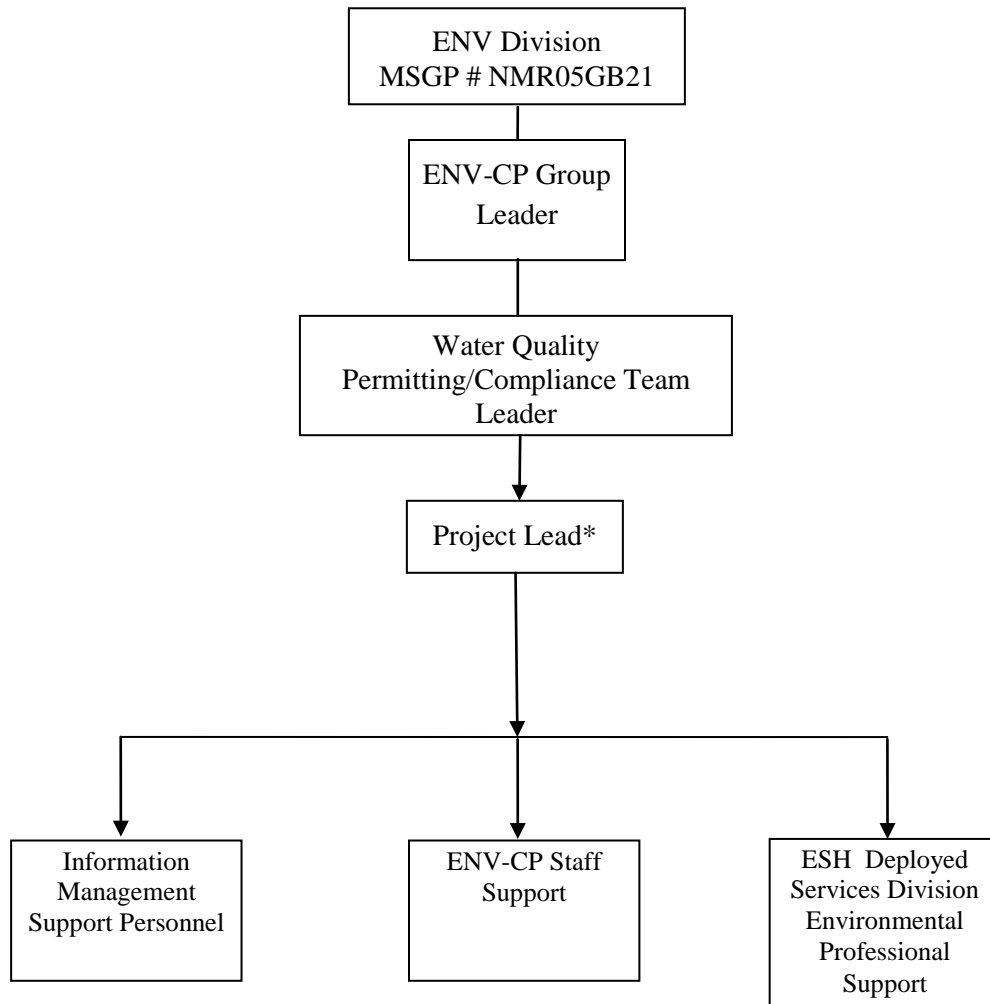
Attachment 4 – MSGP Facilities and Storm Water Monitored Outfalls Associated with Industrial Activity 2011, Permit NMR05GB21

Attachment 5 – Pollutants under Impaired Waters Monitoring

Attachment 6 – Analytes by Industrial Sector

Attachment 7 – References and Guidance Documents

[Click here for “Required Read” credit.](#)

ATTACHMENT 1- MSGP PROGRAM ORGANIZATION

*Project Lead acts as liaison and will work directly with Team Leaders for staff assignments.

ATTACHMENT 2 – ANNUAL REPORTING FORM

NPDES Permit Tracking No.:



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

Annual Reporting Form

A. GENERAL INFORMATION

[illegible]

2. NPDES Permit Tracking No.: _____

3. Facility Physical Address:

a. Street:

b. City: [] c. State: [] [] d. Zip Code: [] [] [] - [] []

4. Lead Inspectors Name: _____ Title: _____

[illegible]

5. Contact Person:		Title:	
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[illegible]

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.:

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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?

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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.:

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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.:

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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 ☐ NO3. Have any control measures failed and require replacement? ☐ YES ☐ NO4. 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 ☐ NO3. Have any control measures failed and require replacement? ☐ YES ☐ NO4. 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 ☐ NO3. Have any control measures failed and require replacement? ☐ YES ☐ NO4. 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.:

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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 #

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 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:

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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:

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10. Date correction action completed:

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 or expected to be completed:

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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.:

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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: _____

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ATTACHMENT 3 – ROUTINE INSPECTION FORM

Name of Facility:			Responsible FOD (Name & Organization):			
Qualified Inspector(s): Others Present:			Inspection type: <input type="checkbox"/> Quarterly <input type="checkbox"/> Other		Date of inspection (MM/DD/YYYY):	
					Time of inspection:	
Weather: <input type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snow <input type="checkbox"/> High Winds <input type="checkbox"/> Other: Temperature: ° F						
Is Inspection Being Conducted During a Storm Water Discharge? <input type="checkbox"/> Yes <input type="checkbox"/> 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? <input type="checkbox"/> Yes <input type="checkbox"/> No Describe:						
Were previously identified conditions corrected before the next anticipated storm event? <input type="checkbox"/> Yes <input type="checkbox"/> 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						

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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? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Were any Corrective Actions initiated or completed? <input type="checkbox"/> Yes <input type="checkbox"/> No Describe:			
Are there any conditions requiring Corrective Action? <input type="checkbox"/> Yes <input type="checkbox"/> 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)			

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**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

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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

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ATTACHMENT 6 – ANALYTES BY INDUSTRIAL SECTOR

Permitted Facility	Monitored Outfall	Sector	Activity	Analyte	Monitoring Requirement
TA-3-0034 Metal Shop TA-3-38 Metals Fab Shop TA-3-39 & 102 Metal Shop	3-MST-1 3-MFS-1 3-TS-1	AA	Fabricated Metals	Aluminum Iron Nitrate plus Nitrite Nitrogen Zinc	Quarterly Benchmark Monitoring (QBM) QBM QBM QBM
TA-60 Asphalt Batch Plant	60-ABP-1	D	Asphalt Paving	Oil and Grease pH Total Suspended Solids	Effluent Limitations Guidelines (ELG) ELG QBM and ELG
TA-3-66 Sigma Complex	3-Sigma-6	F	Primary Metals	Copper Zinc	QBM QBM
TA-54 Area G TA-54 Area G TA-54 Area G TA-54 Area G TA-54 Area L TA-54 RANT	54-G-1 54-G-2 54-G-3 54-G-4 54-L-1 54-RANT-1	K	Treatment, Storage or Disposal Facility (TSD)	Ammonia Arsenic Cadmium Chemical Oxygen Demand Cyanide Lead Magnesium Mercury Selenium Silver	QBM QBM QBM QBM QBM QBM QBM QBM QBM QBM
TA-60 MRF	60-MRF-1	N	Scrap Recycling	Aluminum Chemical Oxygen Demand Copper Iron Lead Total Suspended Solids Zinc	QBM QBM QBM QBM QBM QBM QBM
TA-3-22 Power & Steam Plant	3-PSP-1 3-PSP-5 3-PSP-8	O	Steam Electric Power	Iron	QBM

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ATTACHMENT 7 – REFERENCES AND GUIDANCE DOCUMENTS

- 40 CFR 122, *EPA Administered Permit Programs*
- 40 CFR 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants*.
- Clean Water Act, Title 33 U.S.C. 1251
- DOE O 414.1C, *Quality Assurance*
- DOE Order 450.1, *Environmental Protection Program*
- DOE Order 5400.5, *Radiation Protection of Public and Environment*
- EPA QA/G-4, *Guidance for the Data Quality Objectives Process*

LANL Documents:

- P322-4, *Laboratory Performance, Feedback, and Improvement*
- P328-3, *Management Assessments*
- P328-4, *Management Observation and Verification*
- P330-6, *Nonconformance Reporting*
- P330-8, *Inspection and Test for Acceptance*
- P340, *Conduct of Engineering*
- P341, *Engineering Process Manual*
- P401, *Procedure to Identify, Communicate, and Implement Environmental Requirements*
- P407, *Water Quality*
- P840-1, *Procurement Quality*

ENV Documents:

- ENV-DO-QP-105, *Preparation, Review, and Approval of Procedures*
- ENV-DO-QP-106, *Document Control*
- ENV-DO-QP-113, *Tracking Performance Feedback and Actions*
- ENV-DO-QP-115, *Personnel Training*
- ENV-CP-QP-022, *MSGP Storm Water Corrective Actions*
- ENV-CP-QP-044, *Preparing Storm Water Discharge Monitoring Reports (MDNRs) for NPDES MSGP*
- ENV-CP-QP-047, *Inspecting Storm Water Runoff Samplers and Retrieving Samples*
- ENV-CP-QP-048, *Processing MSGP Storm Water Samples*
- ENV-CP-QP-064, *Multi-Sector General Permit Storm Water Visual Inspections*
- ENV-WQH-QP-029, *Creating and Maintaining a Chain of Custody*
- Surface Water Monitoring Plan, October 2001, Rev. 0.0

ENV-RCRA-QP-022.2



Effective Date: February 28, 2013

Next Review Date: January 28, 2015

Environment, Safety, Health Directorate

Environmental Protection – Water Quality and RCRA Quality Procedure

MSGP Storm Water Corrective Actions

Reviewers:

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Derivative Classifier: ☒ Unclassified

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CONTROLLED DOCUMENT

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Users are responsible for ensuring they work to the latest approved version.

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History of Revisions

Document Number <i>[Include revision number, beginning with Revision 0]</i>	Effective Date <i>[Document Control Coordinator inserts effective date]</i>	Description of Changes <i>[List specific changes made since the previous revision]</i>
0	08/10	New Document.
1	11/10	Incorporated ENV-RCRA-QP-062 <i>MSGP Routine Inspections</i> into this document.
2	01/13	Biennial revision, new template implemented.

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1.0 PURPOSE

This procedure is written to provide requirements for identifying, documenting and entering corrective actions into the ENV-RCRA MSGP Corrective Action Report Findings database.

2.0 SCOPE

Requirements set forth in this document apply to Los Alamos National Laboratory industrial facilities covered by the National Pollutant Discharge Elimination System (NPDES) Storm Water Multi-Sector General Permit (MSGP). This “general permit” requires identification, documentation, tracking and reporting of corrective actions in accordance with sections 2.2.1, 3, 4.1.2, 4.2.2, 4.3.2, 5.0, 5.2, 5.4, 6.2.1, 6.2.1.2, 7.2 and Appendices B and I.

2.1 HAZARD REVIEW

The work described in this procedure is office work only and has a **LOW hazard** rating as documented by submittal of a completed [ENV Low Hazard Verification form](#) to the Quality Assurance Specialist.

3.0 RESPONSIBILITIES

The following personnel require training before implementing this procedure:

- Group and Team Leader
- ENV-RCRA MSGP Storm Water compliance personnel
- Deployed Environmental Professionals (DEPs)
- Other LANL or subcontract personnel identified as being required to conduct storm water assessments as part of their job duties.

In addition to training to this procedure, the following training is also required prior to performing this procedure:

- [ENV-RCRA QAPP-MSGP Quality Assurance Project Plan for the Storm Water Multi-Sector General Permit for Industrial Activities](#)

The training method for this procedure is “self-study” (required read). For ENV-RCRA staff, this is documented in accordance with [ENV-DO-QP-115, Personnel Training](#). Other participating groups may require training documentation pursuant to local procedures.

Actions specified within this procedure, unless preceded with “should” or “may”, are to be considered mandatory (i.e., “shall”, “will”, “must”).

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3.1 ROLES AND RESPONSIBILITIES

3.1.1 ENV-RCRA MSGP STORM WATER TEAM

ENV-RCRA MSGP Storm Water Team members will be fully knowledgeable of the specific regulatory requirements identified in the 2008 MSGP and are responsible for ensuring compliance with these requirements and entering corrective actions. Team members will evaluate corrective actions that the DEPs enter into the ENV-RCRA MSGP Corrective Action Report Findings database and modify them as needed for quality assurance. This team will also periodically review open corrective actions and follow up with the DEPs, ES&H Managers, or Upper Management, as deemed necessary, to ensure close out of the corrective action. The team members will notify upper management of instances of non-compliance with the permit. A team member may also be responsible for responding to the regulatory authority (EPA) regarding identified storm water issues and/or negotiate settlement of any identified issues.

3.1.2 DEPLOYED ENVIRONMENTAL PROFESSIONALS

DEPs will be fully knowledgeable of the site specific Storm Water Pollution Prevention Plan (SWPPP) and corrective action requirements identified in the MSGP for the facilities they are deployed to. In addition, they shall be appropriately trained to meet the job qualifications identified in the *Quality Assurance for Storm Water Multi-Sector General Permit for Industrial Activities Program* (ENV-RCRA-QAPP-MSGP) and shall be familiar with the regulatory requirements identified in the 2008 MSGP. Further, they shall be familiar with facility operations so that potential pollution discharge sources can be determined and corrective actions can be identified.

The DEPs are responsible for identifying and entering corrective actions observed at their industrial facilities into the ENV-RCRA MSGP Corrective Action Report Findings database. They are also responsible for updating corrective actions in a timely manner that cannot be implemented immediately. They will work with the ES&H Manager and ENV-RCRA storm water personnel to ensure identified corrective actions are implemented by overseeing repairs and/or improvements or instituting additional controls. If it is determined that corrective actions are necessary following an assessment, any modification to the control measures must be made before the next storm event if possible, or as soon as practicable following that storm event.

NOTE: These time intervals are not grace periods, but are schedules considered reasonable for documenting your finding(s) and for making repairs and improvements. They are included in the MSGP Permit to ensure that the conditions prompting the need for these repairs and improvements are not allowed to persist indefinitely (see Section 3.3 of the 2008 MSGP). In no instance will the corrective action remain open indefinitely.

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3.1.3 ENV-RCRA STORM WATER TEAM LEADER

The ENV-RCRA Storm Water Team Leader is responsible for compliance oversight relative to the 2008 MSGP. The Team Leader will ensure costs needed to implement the regulatory requirements identified in the 2008 MSGP are identified and environmental risks are assessed. Upper management will be notified of these costs or environmental risks, as deemed necessary. In the event there is a dispute regarding the regulatory requirements contained in the MSGP, the Team Leader will make the final determination of the required action. The Team Leader will notify upper management of instances of non-compliance with the permit.

3.1.4 ENV-RCRA GROUP LEADER

The ENV-RCRA Group Leader or designee is responsible for ensuring there is adequate funding to implement the regulatory requirements identified in the 2008 MSGP. The Group Leader also acts as the duly authorized signatory that certifies the reports. The Group Leader will notify upper management of instances of non-compliance with the permit or other identified environmental risk.

3.1.5 ES&H MANAGER

The ES&H manager shall identify funding for their industrial facilities to ensure compliance with the 2008 MSGP. The ES&H Manager is also responsible for ensuring that industrial facilities are complying with the 2008 MSGP permit and notifying upper management of instances of non-compliance with the permit or other identified environmental risk.

3.1.6 FACILITIES OPERATIONS DIRECTOR

The Facilities Operations Director (FOD) provides organizational leadership to ensure that all facility and programmatic activities under their authority are performed in compliance with the 2008 MSGP. The FOD is also responsible for establishing an environmental compliance envelope. It is the FOD's responsibility to maintain trained and qualified Environmental Professionals and Waste Management Coordinators on staff.

3.1.7 COMPUTER PROGRAMMER

Maintains and updates the ENV-RCRA MSGP Corrective Action Report Findings database as requested by MSGP storm water personnel.

3.2 PREREQUISITES

In addition to training to this procedure, the following training is also required prior to performing this procedure:

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- [*ENV-RCRA QAPP-MSGP, Quality Assurance Project Plan for the Storm water Multi-Sector General Permit for Industrial Activities Program*](#)

4.0 DOCUMENT CONTROL/RECORDS MANAGEMENT

The following records generated as a result of this procedure are to be submitted to the designated RM-POC in accordance with [*ENV-DO-QP-110, Records Management*](#) and filed in project files.

- MSGP Comprehensive Site Inspection Annual Report
- Completed Routine Inspection Forms
- Electronic records within the ENV-RCRA MSGP Corrective Action Report Findings database.
- Copies of automated e-mail notifications

5.0 WORK PROCESSES

5.1 IDENTIFYING CORRECTIVE ACTIONS

If any of the following conditions occur, the DEP or ENV-RCRA storm water team member must review and revise the selection, design, installation, and implementation of control measures to ensure that the condition is eliminated and will not be repeated in the future:

- An unauthorized release or discharge (e.g., spill, leak, or discharge of non-storm water not authorized by the 2008 MSGP);
- You become aware, or EPA determines, that your control measures are not stringent enough for the discharge to meet applicable water quality standards;
- An inspection or evaluation of the facility by an EPA official and/or local or State entity, determines that modification to the control measures are necessary to meet the non-numeric effluent limits in the 2008 MSGP;
- You find in the routine facility inspection, quarterly visual assessment, or comprehensive site inspection that the control measures are not being properly operated and maintained;
- Construction or a change in design, operation, or maintenance at the facility significantly changes the nature of pollutants discharged in storm water from the facility, or significantly increases the quantity of pollutants discharged; or
- The average of four quarterly sampling results exceeds an applicable benchmark. If less than four benchmark samples have been taken, but the results are such that an exceedence of the four quarter average is mathematically certain, (i.e., if the sum of quarterly sample results to date is more than four times the benchmark level) this is considered a benchmark exceedence, triggering this review;
- If effluent limitation guidelines are exceeded at the Asphalt Batch Plant (Sector D); or
- If impaired water quality standards are exceeded.

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5.2 ROUTINE INSPECTIONS

Routine inspections shall be conducted by the DEP (or a qualified member if the DEP is not trained and qualified) at all areas of the facility where industrial materials or activities are exposed to storm water, and of all storm water control measures used to comply with the effluent limits contained in the 2008 MSGP. Routine inspections shall be conducted at least quarterly; however, some facilities conduct monthly inspections (as specified in the facility specific SWPPP). Routine inspections shall be conducted during periods when the facility is in operation. A certified copy of completed Routine Inspection Forms shall be maintained in the facility's SWPPP.

At least once each calendar year, the routine facility inspections must be conducted during a period when a storm water discharge (either rain or snow) is occurring. The DEP(s) or storm water personnel from ENV-RCRA are responsible for identifying and entering corrective actions observed during the routine inspections into the ENV-RCRA MSGP Corrective Action Report Findings database. The database is set up to allow access for all identified DEPs associated with a particular FOD if the FOD has more than one DEP. Contact a member of the ENV-RCRA storm water team if you do not have access to this database and the FOD has assigned you responsibility for MSGP corrective actions.

NOTE: If the industrial facility is inactive and unstaffed and there are no industrial materials or activities exposed to storm water, routine inspections may not be required. A determination of whether a facility is inactive or unstaffed shall be made in coordination with storm water personnel from ENV-RCRA as there are specific documentation and certification requirements that have to be met prior to discontinuing routine inspections.

5.3 COMPREHENSIVE INSPECTIONS

Qualified ENV-RCRA storm water personnel will conduct one comprehensive inspection of all industrial facilities and those that meet the "no exposure" criteria subject to the 2008 MSGP before September 29th of each year. At least one member of the facility's storm water pollution prevention team shall participate in this inspection. This is usually the DEP.

This inspection must cover all areas of the industrial facility affected by the requirements in the 2008 MSGP including the areas identified in the SWPPP as potential pollutant sources where industrial material or activities are exposed to storm water, areas where control measures are used to comply with the effluent limits, and areas where spills and leaks have occurred in the past 3 years. The inspector must include review of the monitoring data (analytical results from benchmark and impaired waters and visual assessments) collected that calendar year as part of the comprehensive inspection. Inspectors must examine the following at a minimum:

- Industrial materials, residue, or trash that may have or could come into contact with storm water;
- Leaks or spills from industrial equipment, drums, tanks, and other containers;

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- Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site;
- Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas; and
- Control measures needing replacement, maintenance, or repair.
- Storm water controls measures required by the 2008 MSGP must be observed to ensure that they are functioning correctly.

NOTE: The annual comprehensive site inspection may also be used as one of the routine inspections, as long as all components of both types of inspections are included.

ENV-RCRA will then enter all identified corrective actions into the ENV-RCRA MSGP Corrective Action Report Findings database. It is the responsibility of the DEP to update the database to reflect updates to these corrective actions.

Information compiled during the comprehensive inspection is used to complete the Annual Report. This report shall be submitted to EPA (postmarked) within 45 days of the last facility inspection completed in September of each year. For example, if the last facility was inspected (as part of the comprehensive site inspection) on September 22, the report shall be postmarked before or on November 6th. A complete certified copy of the Annual Report shall be maintained in the facility's SWPPP.

5.4 SPILLS

All leaks or spills shall be cleaned up immediately and entered into the ENV-RCRA MSGP Corrective Action Report Findings database. This can be done by either the DEP or an ENV-RCRA MSGP storm water team member. If the spill is immediately cleaned up, and controls are put in place to prevent further leakage, the corrective action can be closed.

5.5 ALLOWABLE NON-STORM WATER DISCHARGES

The following are allowable non-storm water discharges authorized by the 2008 MSGP:

- Discharges from fire-fighting activities;
- Fire hydrant flushing;
- Potable water, including water line flushings;
- Uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids;
- Irrigation drainage;
- Landscape watering provided all pesticides, herbicides, and fertilizer have been applied in accordance with the approved labeling;
- Pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous material have occurred (unless all spilled material has been removed);

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- Routine external building washdown that does not use detergents; and
- Uncontaminated ground water or spring water.

Any person authorized to conduct work at LANL can identify a potential storm water issue. If this occurs, they should contact the DEP or an ENV-RCRA MSGP storm water team member who will determine if a corrective action is needed.

5.6 ENTERING CORRECTIVE ACTIONS

To enter a corrective action into the ENV-RCRA MSGP Corrective Action Report Findings database, perform the following steps:

NOTE: Be clear and concise, use correct grammar and punctuation, and correct any spelling errors. This information will be used to populate a report that will be submitted to the EPA. Therefore, it is critical that all information entered into the ENV-RCRA MSGP Corrective Action Report Findings database is correct and meets these criteria.

Step	Action
1	<p>From this web page:</p> <p>http://int.lanl.gov/environment/water/guidance/swmgp.shtml, under the heading “Compliance Tools”. Click on the link “MSGP Corrective Action Report Findings Database”</p> <p>Click on “Enter New Corrective Action.”</p>
2	<p>Under the “Corrective Action Header” tab, enter the following:</p> <ul style="list-style-type: none"> • Facility Name by clicking on the “List” tab and selecting a facility. • Date Problem was Identified (mm/dd/yyyy) • Date of Notification to ENV-RCRA (mm/dd/yyyy) • FOD Responsible for CA (Name & Org) by clicking in the box. FOD designations (for example “STO”) and the associated name will come up. Just select the appropriate FOD. <p>NOTE: Contact the MSGP Project Leader at 667-1312 or hbensen@lanl.gov if the FOD name or organization is incorrect, so this can be corrected.</p> <ul style="list-style-type: none"> • Describe Specific Evaluation Location (for example “Northeast corner of Building TA-3-66”) • Inspector Z-Number by clicking in the box, which will populate it with your Z number. In most instances, the DEP should be identified as the inspector. Note: If you are entering the CA and are not the DEP, you will have to enter the DEP’s Z number or they will not have the ability to update the corrective action. <p>Once all of the above information is entered correctly, click “Save” and go</p>

	to Step 3. All boxes identified with a red asterisk are “required fields” and shall be filled out. Note: The system will automatically assign a Corrective Action Report ID number.
3	<p>Click “Go To Corrective Action Details” in the middle of the screen.</p> <p>Under the “Corrective Action Details” tab, enter the following:</p> <ul style="list-style-type: none"> Identify the condition triggering the need for this review by clicking on the “List” tab and selecting an option or selecting “Other” and entering a description of the condition. Briefly describe the nature of the problem identified during the inspection (e.g., erosion, damage to a BMP, trash, spill, etc.) and the specific evaluation location. <p>NOTE: Spills or other emergency situations may identify the need for a corrective action that was not identified during an inspection.</p> <ul style="list-style-type: none"> How the problem was identified by clicking on the “List” tab and selecting an option or selecting “Other” and entering a description of the problem. Description of the corrective action taken, or to be taken, to eliminate or further investigate the problem (e.g., describe modifications or repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, the basis for that determination. Did/will the corrective action require modification of your SWPPP. Type in “Y” for yes and “N” for no. Date Corrective action was initiated (mm/dd/yyyy) Date corrective action was completed OR expected completion date (mm/dd/yyyy) <p>NOTE: If the corrective action has not been completed, enter an expected completion date. Do not put a date in both locations.</p> <p>If the corrective action has not been completed, provide the status of the corrective action and describe any remaining steps (including timeframes associated with each step) necessary to complete the corrective action.</p> <p>NOTE: This should only be filled out if the corrective action has not been completed. If the corrective action has been completed, enter “N/A.”</p> <p>Make sure to hit the “save” tab in the bottom right hand corner so the corrective action information is retained. If you want to enter more corrective actions, go back to the “Corrective Action Header” tab and press the “Enter New Corrective Action” button in the lower left hand corner of the screen (see step #2). Hitting the “Exit” button will cause you to exit from the system.</p>

	All boxes identified with a red asterisk are “required fields” and shall be filled out. If a date is not included or identified as an expected completion date, ENV-RCRA storm water compliance personnel will enter a completion date of 30 days after the corrective action was identified.
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5.7 UPDATING CORRECTIVE ACTIONS

To update a corrective action in the ENV-RCRA MSGP Corrective Action Report Findings database, perform the following steps:

Step	Action
1	From this web page: http://int.lanl.gov/environment/water/guidance/swmgp.shtml , under the heading “Compliance Tools”. Click on the link “ MSGP Corrective Action Report Findings Database ” to access the database and tab down to the corrective action number you want to edit. Click on “Edit.”
2	Navigate to the blank that you will be changing and input the updated information. It is anticipated that most changes will occur relative to updating the status of corrective actions. Save all changes to the information. Remember, you should only have a date under “Date corrective action completed OR the “expected to be completion,” but not both.

5.8 VALIDATING CORRECTIVE ACTIONS

ENV-RCRA storm water personnel will periodically validate the information contained in the ENV-RCRA MSGP Corrective Action Report Findings database. To validate a corrective action in the ENV-RCRA MSGP Corrective Action Report Findings database, perform the following steps:

Step	Action
1	From this web page: http://int.lanl.gov/environment/water/guidance/swmgp.shtml , under the heading “Compliance Tools”. Click on the link “ MSGP Corrective Action Report Findings Database ” to access the database.

2	<p>Check all entered fields for a corrective action to ensure that all information is clear, correct, and concise. If not, correct the information by navigating to the information that needs to be changed and making the change. Save all changes to the information.</p> <p>All information shall be validated before running the final annual report.</p>
3	<p>For ENV-RCRA storm water personnel only, under “status” select “void” if the corrective action is a repeat of a previous corrective action or if it is determined not to be a corrective action. This will delete the corrective action from the annual report.</p>

5.9 INSTITUTIONAL PERFORMANCE FEEDBACK AND IMPROVEMENT TRACKING SYSTEM (PFITS)

PFITS is the institutional performance and tracking system for identified issues. A corrective action that meets any of the following criteria will be entered into the PFITS system, as deemed necessary.

- Corrective action was not completed by the expected completion date entered into the database.
- No action was taken to remedy an identified issue with a control measure within 14 days of discovery or before the next storm event or as soon as practicable following that storm event (Section 3.3 of the 2008 MSGP).
- Repeat corrective actions or trends identified by ENV-RCRA MSGP storm water personnel.
- Conditions requiring immediate action, where failure to take action would result in pollutants being released to water of the state or an immediate non-compliance with the 2008 MSGP.
- Violations identified by the regulatory authority.
- Other issues as deemed necessary by MSGP storm water personnel.

Once every month, ENV-RCRA storm water personnel will evaluate a summary of open corrective actions in the ENV-RCRA MSGP Corrective Action Report Findings database and using the above criteria will determine which corrective actions, if any, should be transferred into PFITS. When the monthly notification of outstanding corrective actions is sent out, evaluate whether any of the outstanding corrective actions meet the above conditions. Send those that do to the Environmental Protection Division’s Improvement Management Coordinator (IMC) so that she can enter the information into PFITS. The summary report will contain the following information, at a minimum:

- Date the corrective action was identified;
- Person that identified the corrective action;

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- A description of the nature of the problem identified and what needs to be done to address the corrective action.
- Whether the corrective action was identified internal to LANL or External to LANL.

5.10 NOTIFICATIONS FOR NEW AND OVERDUE CORRECTIVE ACTIONS

When a new corrective action is entered into the ENV-RCRA MSGP Corrective Action Report Findings database, the FOD, ESH&Q Manager, Operations Manager, inspector (usually the DEP) and ENV-RCRA MSGP storm water personnel are notified automatically by e-mail (unless the corrective action is closed the same day it is entered). This will assist the FOD, ESH& Q Managers, Operations Managers and the DEPs with keeping track of new corrective actions.

An automatic e-mail is sent the first of each month notifying the FOD, ESH&Q Manager, Operations Manager and DEPs of all overdue corrective actions for their industrial facilities. The Environmental Protection Division Leader and ENV-RCRA Group Leader receive a web link that contains a bar graph showing corrective actions 30 to 60 days overdue, 60 to 90 days overdue, 90 days to 1 year overdue, and those greater than a year overdue. In addition, they receive a link with summary information on each corrective action overdue sorted by FOD.

6.0 REFERENCES

- Federal Register: *Final National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Industrial Activities*. Federal Register: September 29, 2008, Volume 73, Number 189.
- [P300, Integrated Work Management](#)
- [P315, Conduct of Operations Manual](#)
- [PD103, Worker Safety and Health Policy](#)
- [SD100, Integrated Safety Management System Description Document with Embedded 10 CFR 851 Worker Safety and Health Program](#)
- [P101-18, Procedure for Pause/Stop Work](#)
- [PD410, Los Alamos National Laboratory Environmental ALARA Program](#)
- [P121, Radiation Protection](#)
- [ENV-DO QP-106, Document Control](#)
- [ENV-DO-QP-115, Personnel Training](#)
- [ENV-DO-QP-104, Work Safety Review](#)

In addition to these documents, please read any site specific requirements before proceeding with work.

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7.0 DEFINITIONS

Best Management Practice (BMP): Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of “waters of the United States.” BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. (*40 CFR Part 122.2*)

Control Measure: Any BMP or other method (including effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the United States.

CA: Corrective Action

DEP: Deployed Environmental Professional

EPA: Environmental Protection Agency

FOD: Facility Operations Director

MSGP: Multi-Sector General Permit

SWPPP: Storm Water Pollution Prevention Plan

8.0 ATTACHMENTS

Attachment 1- Annual Reporting Form

Attachment 2- NPDES Multi-Sector General Permit Routine Inspection Form

[Click here for “Required Read” credit.](#)

ATTACHMENT 1- ANNUAL REPORTING FORM

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: <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="width: 60%;"> a. Street: </div> <div style="width: 35%;"> c. State: </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="width: 55%;"> b. City: </div> <div style="width: 35%;"> d. Zip Code: </div> </div>			
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? <input type="checkbox"/> YES <input type="checkbox"/> 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? <input type="checkbox"/> YES <input type="checkbox"/> 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.:

[illegible]

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.:

[illegible]

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:

Title: MSGP Storm Water Corrective Actions	No. ENV-RCRA-QP-022.2	Page 22 of 23
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ATTACHMENT 2- NPDES MULTI-SECTOR GENERAL PERMIT ROUTINE INSPECTION FORM

Los Alamos National Laboratory ENV-RCRA		NPDES Multi-Sector General Permit Routine Inspection Form (rev. 03/2009) Page 1 of (use additional sheets if necessary)	
Name of Facility:		Responsible FOD (Name & Organization):	
Qualified Inspector(s): Others Present:		Inspection type: <input type="checkbox"/> Quarterly <input type="checkbox"/> Other	Date of inspection (MM/DD/YYYY):
		Time of inspection:	
Weather: <input type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snow <input type="checkbox"/> High Winds <input type="checkbox"/> Other: Temperature: ° F			
Is Inspection Being Conducted During a Storm Water Discharge? <input type="checkbox"/> Yes <input type="checkbox"/> No			
#	Structural Control Measures (BMP)s	Location	Operating Effectively (Yes or No)?
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
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)			
Were additional BMPs or Control Measures implemented? <input type="checkbox"/> Yes <input type="checkbox"/> No Describe:			
Were previously identified conditions corrected before the next anticipated storm event? <input type="checkbox"/> Yes <input type="checkbox"/> No If No, describe reason:			
Area/Activity (Areas of Industrial Materials or Activities Exposed to Storm Water)		Inspected?	Controls Adequate?
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? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Were any Corrective Actions initiated or completed? <input type="checkbox"/> Yes <input type="checkbox"/> No Describe:			
Are there any conditions requiring Corrective Action? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, List Number of Corrective Actions Required _____ (Note – need a Corrective Action Form for each listed)			

Title: MSGP Storm Water Corrective Actions	No. ENV-RCRA-QP-022.2	Page 23 of 23
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Los Alamos National Laboratory
ENV-RCRA

NPDES Multi-Sector General Permit Inspection Form
(rev. 03/2009) Certification Sheet

Non-Compliance

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

Additional Control Measures

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

Notes

Use this space for any additional notes or observations from the inspection:

Inspector's Signature and date: _____

CERTIFICATION STATEMENT

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

Print name and title: _____

Signature: _____ Date: _____

EPC-CP-QP-064

Revision: 0



Effective Date: 10/04/2017

Next Review Date: 10/04/2020

Environment, Safety, and Health Directorate

Environmental Protection and Compliance-Compliance Programs

Quality Procedure

MSGP Stormwater Visual Assessments

Document Owner:

Name:	Organization:	Signature:	Date:
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Derivative Classifier: ☐ Unclassified or ☒ **DUSA ENVPRO**

Name:	Organization:	Signature:	Date:
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REVISION HISTORY

Document Number and Revision <i>[Include revision number, beginning with Revision 0]</i>	Effective Date <i>[Document Control Coordinator inserts effective date]</i>	Description of Changes <i>[List specific changes made since the previous revision]</i>
ENV-RCRA-QP-064, R0	7/09	New document <i>MSGP Storm Water Visual Inspections</i> .
ENV-RCRA -QP-064, R1	3/10	Clarifications and added attachments.
ENV-RCRA -QP-064, R2	2/12	Biennial review/revision
EPC-CP-QP-064, R0	10/04/2017	This document replaces ENV-RCRA-QP-064 R2. Converted into new format, and new organization name, clarified steps, updated attachments.

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1.0 INTRODUCTION

Los Alamos National Security, LLC (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) at Los Alamos National Laboratory (LANL). The MSGP requires LANL to monitor stormwater runoff from industrial sites relative to potential pollutants.

1.1 Purpose

This procedure describes the process for conducting visual assessments of stormwater from outfall locations monitored under the MSGP for industrial facilities at LANL.

Assessments conducted under this procedure should be documented using the Maintenance Connection Express™ (MC Express) web application. (In the event of electronic hardware or web application failure, personnel may use a printed hard copy to conduct inspection and sample retrieval.)

1.2 Scope

Requirements set forth in this document apply to Los Alamos National Laboratory industrial facilities covered by the MSGP. These facilities include, a warehouse, several metal fabrication areas/shops, a heavy equipment yard, an asphalt batch plant, roads and grounds, a foundry, a power plant, a material recycling facility, a carpenter shop, and several hazardous waste treatment, storage or disposal (TSD) facilities. Inspection waivers may be granted by EPC-CP for adverse weather conditions and unstaffed or inactive sites.

At least once each MSGP monitoring quarter a stormwater sample must be collected from each discharge point covered by the MSGP and site specific SWPPP and visually inspected for water quality characteristics. Stormwater samples can be collected with an automated sampler, single stage sampler, or by taking a grab sample.

1.3 Applicability

This procedure applies to the EPC-CP technical staff and subcontractor personnel (as applicable) who conduct stormwater visual assessments during or after measurable storm events at MSGP outfalls.

Note: *A measurable storm event is identified as one what results in an actual discharge from your site that follows the preceding measurable storm event by at least 72 hours (3 days).*

2.0 PRECAUTIONS AND LIMITATIONS

Hazards in the work described in this procedure are controlled through site specific Integrated Work Documents (IWDs). The hazard level for the activities described in this procedure is **low**, however the cumulative hazard rating for activities described in the IWD is **moderate**.

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Assessments may be discontinued during periods or conditions that make sites dangerous for worker safety or prevent personnel from safely accessing sites (e.g., weather-related events such as flash floods, flooding, lightning, wildfires, hail, icy roads, deep snow, or LANL operations such as firing shots or burns).

Click the “Save” bar after all entries for a task line have been completed and before proceeding to the next question. Failure to “Save” results in lost data entries.

Some terminology varies between the MC Express software and the Maintenance Connection desktop software.

- The “Reading” field in MC Express is the same field as “Reading Final” in Maintenance Connection desktop and “Meas.” on a hard copy (printed) work order.
- The “Complete” option in MC Express is the same as a “Yes” answer; the “Failed” option in MC Express is the same as a “No” answer. Maintenance Connection desktop and hard copy (printed) work orders use “Yes” and “No” terminology.

Throughout this procedure the field inspector should document comments and notations in the “Reading” field of the associated task line. Any additional comments not documented in a “Reading” field can be entered in the “Comments” field of the same task line. If the inspector needs more space, additional comments can be entered in the “Labor Report Update” field (see Section 4.3) when the work order is updated to “Complete” status.

3.0 PREREQUISITE ACTIONS

3.1 Planning and Coordination

1. Schedule work to be completed by the target date appearing on the work order(s) or as requested by the MSGP Program Lead if a form is not issued.
2. Inform (e.g., by e-mail) Facility contacts, as specified in the IWD, of the schedule for inspection work and locations up to a week (preferred) before but no later than the day before (for minor changes) to be added to the appropriate plan of the day.

Note: For some Facility Operations Divisions (FODs) like the Utilities and Institutional Facilities FOD, MSGP stormwater monitoring activities are on a standing plan of the day. However, this must be requested each year at the beginning of the monitoring season.

3. The IWD Part II (2101 Form) addresses specific requirements and training for FODs.
4. Obtain any necessary additional paperwork before conducting this work, including IWD’s, and excavation permits (as necessary).
5. Gather the required equipment (see section below) for the work to be done.
6. Using the Safari web browser on a tablet or notebook style computer, navigate to <http://express.maintenanceconnection.com> and select English from the available dropdown menu.

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7. Log into the MC Express application using your login credentials. Contact the MSGP Data Management Team if MC Express generates any message stating the field inspector does not have access.
8. Confirm that the work order list displayed in the “My Open Work Orders” section matches your sites. If work orders are not displayed, click the “Refresh” bar at the bottom of the page. The page will refresh and any work orders issued since you logged in will be loaded to the application. If the work order lists still do not match, contact the MSGP Data Management Team for clarification.
9. Ensure that field personnel have access to accurate time measurement at the Site. When at the site, the clock time on the ISCO sampler must be set to Mountain Standard Time at all times, with no daylight saving time adjustment.

3.2 Tools and Equipment

Ensure the following equipment is available in the field vehicle:

- Safety glasses with side shields
- Nitrile gloves
- Sturdy hiking boots or steel toed shoes with soles that grip
- Cell phone (only government cell phones with batteries removed are allowed in secure areas)
- Copy of this procedure
- Copy of the Integrated Work Documents (IWDs)
- Copy of the MSGP Sampling and Analysis Plan
- Site Map(s) (as needed)
- Current electronic or paper inspection form EPC-CP-Form-1021, MSGP Stormwater Visual Assessments
- Necessary access and station keys
- Clean replacement sample bottles (clear glass or clear poly)
- Paper Towels

4.0 VISUAL ASSESSMENT OF STORMWATER

1. Take the sample bottle with water out of automated sampler or single stage jar off the ground, or fill a clear sample bottle with a grab sample and wipe off exterior.

Note: If a grab sample is collected it shall be collected during daylight hours in a wide mouth clear glass bottle or plastic container within 30 minutes of discharge from a storm event.

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2. In MC Express, open the work order issued for the current location by clicking on the appropriate line. If needed, use the expand arrow located on the right side of the display to expand the work order detail information. The work order will open in the display to the work order Summary page.
3. Click on the “Tasks” bar to navigate to the work order Tasks page. See MC Express screen shot example in Attachment 1 and a hard copy example in Attachment 2.

4.1 Documenting Sample Information

4. **Item 1:** Verify the monitoring period by clicking the expand arrow located on the right side of the task line and changing the “Complete” or “Failed” line to “Yes”. Describe the monitoring period (e.g., Apr-May, Jun-Jul, Aug-Sep, Oct-Nov).

Note: If the discharge collected is from a rain event from the previous monitoring period but the visual assessment is made in the following monitoring period, document monitoring period on the inspection to correspond to the period in which the rain event took place.

CAUTION

Click the “Save” bar after all entries for a task line have been completed and before proceeding to the next question. Failure to “Save” results in lost data entries.

Note: Any additional comments not documented in a “Reading” field can be entered in in the “Comments” field of the same task line. If the inspector needs more space additional comments can be entered in the “Labor Report Update” field.

5. **Item 2:** Verify the visual assessment is performed on an unfiltered sample and document by clicking the expand arrow located on the right side of the task line and changing the “Complete” or “Failed” line to “Yes”. If the sample was filtered, conduct the visual assessment and document “Filtered sample”.
6. **Item 3:** Verify the date and time stormwater discharge began and document by clicking the expand arrow located on the right side of the task line and changing the “Complete” or “Failed” line to “Yes”.

Enter the date and time in the following date formats: MM/DD/YY, or MM-DD-YY. Time must be entered in 24-hr format.

Note: If the discharge date/time is not available (e.g. precipitation report) when the visual is performed in the field, leave this Task Line incomplete and complete when the information is available.

7. **Item 4:** Verify the date and time the sample was collected and document by clicking the expand arrow located on the right side of the task line and changing the “Complete” or “Failed” line to “Yes”.

Enter the date and time in the following date formats: MM/DD/YY, or MM-DD-YY. Time must be entered in 24-hr format.

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Note: If the collection date/time is not available (e.g. precipitation report) when the visual is performed in the field, leave this Task Line incomplete and complete when the information is available.

8. **Item 5:** Verify the date and time stormwater was visually assessed and document by clicking on the right side of the task line and changing the “Complete” or “Failed” line to “Yes”.

Enter the date and time in the following date formats: MM/DD/YY, or MM-DD-YY. Time must be entered in 24-hr format.

9. **Item 6:** Verify the nature of the discharge and document by clicking the expand arrow located on the right side of the task line and changing the “Complete” or “Failed” line to “Yes”. Describe the discharge (e.g., rainfall or snowmelt) and the TOTAL amount of precipitation from the event.

Note: If the total amount of precipitation is not available (e.g., precipitation report) when the visual is performed in the field, leave this Task Line incomplete and complete when the information is available.

10. **Item 7:** Verify the sample was collected in the first 30 minutes of discharge and document by clicking the expand arrow located on the right side of the task line and changing the “Complete” or “Failed” line to “Yes”. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes. The field inspector will document the reason a sample could not be collected within the first 30 minutes.

4.2 Assessing Parameters

While conducting the visual examinations, personnel should constantly be attempting to relate any pollutant that is observed in the sample to a pollutant source on the site.

Note if there are any potential sources of pollutants on site. If yes, contact an MSGP representative of EPC-CP and document the following:

- Potential sources;
 - Indicate if there are any BMPs on site and evaluate and note effectiveness; and
 - If no BMPs, determine if installation could correct future pollutant migration.
11. **Item 8:** Verify the color of the discharge in the sample container and document by clicking the expand arrow located on the right side of the task line and changing the “Complete” or “Failed” line to “Yes”. Describe the color.
 12. **Item 9:** Verify any odors detected from sample and document by clicking the expand arrow located on the right side of the task line and changing the “Complete” or “Failed” line to “Yes”. Describe the odor (e.g., musty, sewage, sulfur, sour, solvents, petroleum/gas, etc.).

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13. **Item 10:** Verify the clarity of the discharge and document by clicking the expand arrow located on the right side of the task line and changing the “Complete” or “Failed” line to “Yes”. Describe the clarity (e.g., slightly cloudy, cloudy, opaque).

Clarity can be described as the depth in which you can look into or through water. For example an individual can see through a clear glass of clean water in daylight. Generally the clarity of the water is a good visual indicator of the purity of water. If the water is poor in clarity there is most likely suspended solids throughout the water.

14. **Item 11:** Verify any floating solids and document by clicking the expand arrow located on the right side of the task line and changing the “Complete” or “Failed” line to “Yes”. Careful examination should determine whether the solids are raw materials (e.g., product used to fabricate something, or ingredients used in a formulation) or waste materials (e.g., shavings, woodchips and sawdust, trash). Describe any floating solids observed.
15. **Item 12:** Verify any settled solids in the sample and document by clicking the expand arrow located on the right side of the task line and changing the “Complete” or “Failed” line to “Yes”. Describe any settled solids observed (e.g., fine, coarse).

Settled solids may be an indicator of unstable ground cover combined with a high intensity stormwater runoff event.

16. **Item 13:** Verify any suspended solids in the sample and document by clicking the expand arrow located on the right side of the task line and changing the “Complete” or “Failed” line to “Yes”. Describe any settled solids observed (e.g., fine, coarse).

Most often suspended solids include fine sediment. This may be an indication of an unstable channel that may have eroding banks. Some water appears to be colored because of relatively coarse particulate material in suspension such as sediment.

17. **Item 14:** Verify the sample is free of foam and document by clicking the expand arrow located on the right side of the task line and changing the “Complete” or “Failed” line to “Yes”. Gently shake the sample container. Describe any bubbles in or on the surface of the water and the color of the foam.

CAUTION

Contact the EPC-CP Project Leader for MSGP **immediately if it is determined that the foam is caused by a pollutant.** Follow-up action is required within 24 hours.

18. **Item 15:** Verify the sample is devoid of any oil sheen and document by clicking the expand arrow located on the right side of the task line and changing the “Complete” or “Failed” line to “Yes”. If an oil sheen is present, describe the thickness and consistency (e.g., flecks, globs).

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CAUTION

Contact the EPC-CP Project Leader for MSGP **immediately**. Then determine the nature of the discharge (rain, snow, hail), the source of the sheen and if existing BMPs are effective in mitigation of potential pollutants or if a new BMP needs to be installed. Follow-up action is required within 24 hours.

19. **Item 16:** Verify the discharge is free of any other indicators of stormwater pollution not described in any other task line above and document by clicking the expand arrow located on the right side of the task line and changing the “Complete” or “Failed” line to “Yes”. Describe any observations.
20. When all task lines have been completed, click the “Back” arrow button in the upper left hand corner to exit the work order Tasks page and return to the work order Summary page.

4.3 Completing the Assessment Form

1. Ensure the inspection form has been filled out completely including information not available during the field inspection (e.g., date/time of discharge, date/time of sample collection, total precipitation amount).
3. Click the checkered flag in the upper right corner of the work order Summary page. MC Express auto-populates the date and time fields.

CAUTION

MC Express automatically changes the work order status to “Closed.”

4. **Item 17:** Click on the expand arrow located on the right side of the “New Status” field and select “Completed” from the available dropdown menu.

Ensure the “Date” field has the date and time the **form was completed**. The completion date and time may be different from the date and time the visual assessment was performed if precipitation information was added to the form after the on-site field inspection.

If these fields need to be updated, click the “Date” field to modify it. Make necessary adjustments using the available timestamp application and click “Set” to apply changes.

6. **Item 18:** The inspector must type in his/her name in the “Labor Report Update” field.
Any additional notes, observations, or site conditions not documented in a task line “Reading” or “Comments” field can also be documented in the “Labor Report Update” field.
7. Scroll down the page to the “Signature” bar and click the expand arrow on the left side of the bar to open the “Signature” field.

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8. **Item 19:** Capture an electronic signature by drawing with a finger on the tablet screen. The Lead Inspector is certifying that the information submitted is “true, accurate, and complete” by electronically signing the work order.

Note: If using MC Express on a desktop screen (not a tablet), the mouse must be used to sign electronically.

9. Click on the “Save” bar at the bottom of the page to close the “Signature” field.
10. Click on the “Back” button located in the upper left hand corner to return to the “My Open Work Orders” page.
11. Once you have completed an inspection, click on the Menu button again, and then click the “Logout” bar. Close the browser. All work will automatically upload from the MC Express application to the MC database.

Always log out of MC Express when you have finished work OR if work is interrupted.

4.4 Completing the Certification Statement

1. Using the Safari web browser on a desktop computer, navigate to <http://www.maintenanceconnection.com>. Log into the MainConn desktop application using your login credentials.
2. Click “Open” in the tool bar at the top of the page to open the MainConn module selections. Click on the “Work Orders” module (see Attachment 3).
3. Click on the “Search” tab at the top left of the page and enter the work order number in the “Search Value” field. Click the arrow to the right of the “Search Value” field to open the work order in the right split screen.
4. Click on the “Report” tab at the top of the page and click the “Work Order Statement” sub-tab.
5. Click the Tools drop down menu in the top right corner of the page and select “Print” from the options. The print dialog box will open. Select the print options as appropriate for your local printer.
6. **Item 20:** Obtain a printed name and title, signature, and date on the certification statement. The visual assessment form must be certified with a signature from a duly authorized representative of the facility as defined in Appendix B of the MSGP Permit, Section B.11.A (e.g., FOD, Operations Manager, DSESH Group Leader, EPC Group Leader). The duly authorized representative of the facility is certifying the information submitted is “true, accurate, and complete” by signing the form.

EPC-CP will send out completed visual assessment forms at the end of each quarter that will contain a certification statement in the cover memorandum. The duly authorized signatory may sign and date this certification statement rather than the certification line associated with each attached form. However, the memorandum and associated completed forms must remain together.

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7. Place the completed and signed visual assessment into the facility SWPPP.

5.0 EVIDENCE OF STORMWATER POLLUTION

If stormwater contamination is identified through visual assessment personnel should attempt to identify the pollutant source. Personnel should evaluate whether or not BMPs have already been implemented and evaluate whether or not these are working correctly or need maintenance. A design change could also be incorporated into the stormwater pollution prevention plan to eliminate or minimize the contaminant source from occurring in the future. Personnel should evaluate whether or not additional BMPs should be implemented in the pollution prevention plan to address the observed contaminant.

A clean up of the site should be conducted if the pollutant source is known and well defined. The FOD, ESH Manager, and MSGP representative of EPC-CP should also be contacted and made aware of the situation.

Corrective actions **MUST** be taken if BMPs are not performing effectively. Refer to EPC-CP-QP-022, *MSGP Stormwater Routine Facility Inspections and Corrective Actions*.

6.0 TRAINING

The following personnel require training before implementing this procedure:

- EPC-CP technical staff and subcontract or other personnel who retrieve stormwater samples and conduct visual assessments at automated or single stage stormwater samplers for the MSGP.

For EPC-CP staff the training method for this procedure is “self-study” (reading). Other participating groups may require training documentation pursuant to local procedures.

Personnel performing this procedure will be familiar with the most current versions of the following procedures and operation manuals:

- EPC-CP MSGP Sampling and Analysis Plan for the current monitoring year

7.0 RECORDS

Records generated by this document and signed by the EPC-CP certifier will be submitted to the EPC-CP Records Management designated point of contact or document manager in accordance with P1020-1, *Laboratory Records Management* and with ADESH-AP-006, *Records Management Plan*.

- EPC-CP-Form-1021, *MSGP Quarterly Visual Assessment*

All other MSGP Quarterly Visual Assessment forms generated are forwarded to the duly authorized representative of each facility for submittal to that facility’s Records Management designated point of contact or document manager.

8.0 DEFINITIONS AND ACRONYMS

See LANL *Definition of Terms*.

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8.1 Definitions

Adverse weather conditions – Weather that prohibits collection of samples such as local flooding, high winds, hurricanes, tornadoes, electrical storms, etc. Could also include drought, extended frozen conditions, etc.

Best Management Practices (BMPs) – Schedules of activities, practices, prohibitions of practices, structures, vegetation, maintenance procedures, and other management practices to prevent or reduce pollution. BMPs can also include treatment requirements, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Clarity – Clearness or cleanness of appearance. This includes the visual observation of suspended sediment.

Color – Unpolluted water will be clear and colorless. Color should not be confused with clarity.

Floating solids – Particulate material floating on the surface of the water. Examples include: raw or waste materials and common trash.

Foam – An accumulation of fine frothy bubbles formed in or on the surface of water. A mass of bubbles of air in a matrix of liquid film.

Odor – The property or quality of waters that affects or stimulates the sense of smell. Examples of odors that may be present are burnt oil, petroleum hydrocarbon, sewage, diesel, sulfuric, or detergent odors.

Oil sheen – The presence of rainbow-like colors glistening on the surface of a liquid. The color of oil sheen will vary dependent on thickness and consistency.

Settled solids – Settled particulate material i.e., heavier than water. Examples include sand, gravel, metal turnings, and glass.

Suspended solids – Particulate materials that are floating between the bottom of the sample and the surface of the water.

Unstaffed and Inactive Sites – A facility maintaining certification with the SWPPP that it is inactive and unstaffed and visual examinations are not required.

8.2 Acronyms

See LANL *Acronym Master List*.

EPC-CP	Environmental Protection and Compliance – Compliance Programs
IWD	Integrated Work Document
LANL	Los Alamos National Laboratory
LANS	Los Alamos National Security, LLC
MC Express	Maintenance Connection MC Express web application
MSGP	Multi-Sector General Permit

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NPDES	National Pollutant Discharge Elimination System
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9.0 REFERENCES

P1020-1, Laboratory Records Management

ADESH-AP-006, Records Management Plan

EPC-CP-QP-022, MSGP Stormwater Routine Facility Inspections and Corrective Actions

10.0 ATTACHMENTS

Attachment 1: *Screenshot Examples of EPC-CP-Form-1021 in MC Express*

Attachment 2: *Crosswalk of EPC-CP-Form-1021 Hard Copy Format to Electronic Format*

Attachment 3: *Screenshot Examples of Printing from Maintenance Connection*

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Attachment 1: Screenshot Examples of EPC-CP-Form-1021 in MC Express

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MC Express

WORK ORDER: MSGP-1423

Tasks

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)
- 35 Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)
- 40 Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).
- 50 Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).
- 60 Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).
- 70 Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.
- 80 Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.

Refresh List

MC Express

WORK ORDER: MSGP-1423

Edit Task

30 Document the monitoring Period (e.g., Apr-May)

Reading

Jun-July

Initials

Failed?

No

Not Applicable?

No

Complete?

Yes

Comments

Cancel Save

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Attachment 1: Screenshot Examples of EPC-CP-Form-1021 in MC Express (cont.)

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MC Express

WORK ORDER: MSGP-1423

Tasks

Parameters

110	Is sample colorless? If "Failed", describe.	8
120	Is sample odorless? 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, coarse).	12
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, coarse).	13
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('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.	16

Refresh List

MC Express

WORK ORDER: MSGP-58534

Summary

[MSGP Program] MSGP Program
LANL-STORM
Requested

MSGP Single Stage Sampler Inspection

Tasks	11
Assignments	1
Labor	0
Parts	0
Other Costs	0
Attachments	1
Asset History	32

More Work Order Detail...

Refresh List

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Attachment 1: Screenshot Examples of EPC-CP-Form-1021 in MC Express (cont.)

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MC Express

WORK ORDER: MSGP-1423
Status Update

Issued

New Status **17**

Completed

Date

6/28/2017 03:12 PM

Percent Complete 100%

Labor Report Update **18**

Select Comments to Add.....

Jane Admin

Cancel Save

MC Express

WORK ORDER: MSGP-1423
Status Update

Signature **19**

(Remove)

Jane Admin

Cancel Save

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Attachment 2: Crosswalk of EPC-CP-Form-1021 Hard Copy Format to Electronic Format

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Los Alamos National Lab - ADESH

Work Order MSGP-1423

MSGP Monitoring Stations
Printed 7/12/2017 - 10:57 AM (Duplicate Copy)

Maintenance Details

Requested By: Admin, Jane on 7/11/2017 1:25:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.02 3)
Last PM: N/A
Reason: Hard Copy MSGP Visual Assessment Example

Target: 12/31/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

MSGP Program
 RG121.9
 TA-3-38 Carpenter Shop
 Monitored Outfall (073)
 MSGP07302


Contact: Admin, Jane
Phone: 123-4567

Tasks

#	Description	Meas.	No	N/A	Yes
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.					
Sample information					
1 30	Document the monitoring Period (e.g., Apr-May)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parameters					
8 110	Is sample colorless? If "Failed", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 120	Is sample odorless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, coarse).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, coarse).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g., 'on the surface' or 'in the sample').		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Labor Report

17 **Completed:** 6/28/2017 3:23:00 PM
 18 **Report:** Jane Admin

19  6/28/2017
 Signature / Name Date Signature / Name Date

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

EPC-CP-Form-1021.1 07/2017

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Attachment 2: Crosswalk of EPC-CP-Form-1021 Hard Copy Format to Electronic Format (cont.)

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CERTIFICATION STATEMENT

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

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

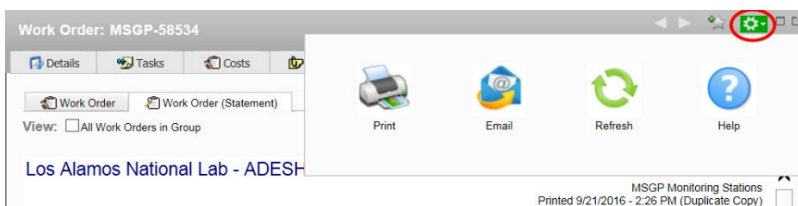
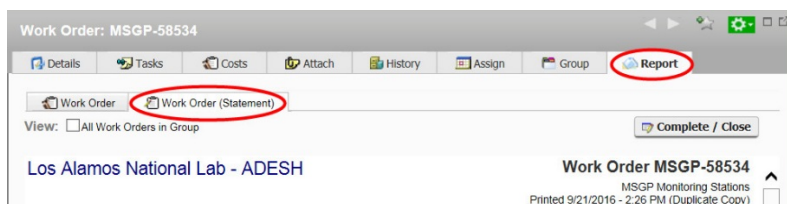
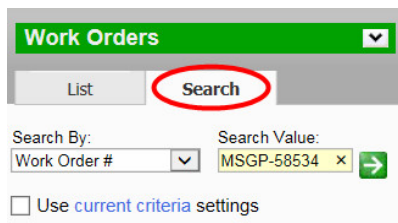
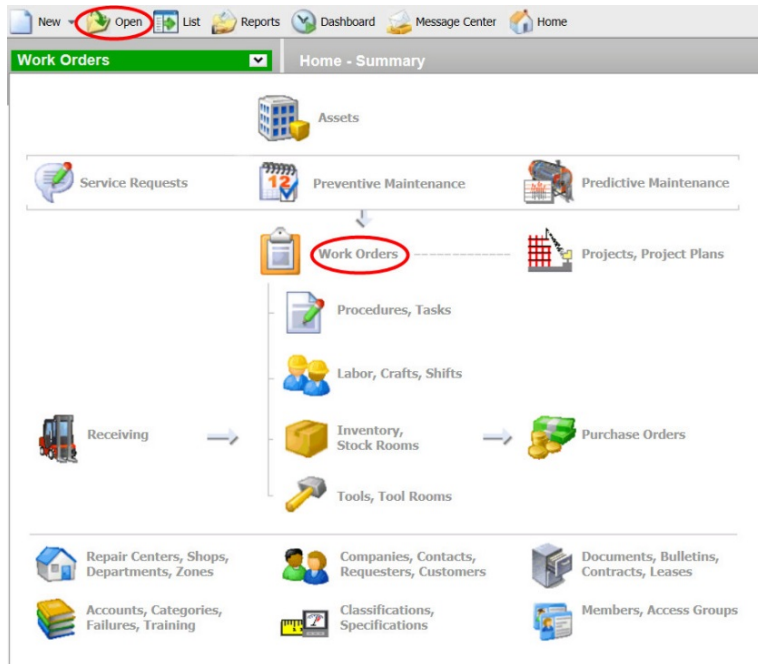
20 Print name and title: _____

Signature: _____ Date: _____

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Attachment 3: Screenshot Examples of Printing from Maintenance Connection

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EPC-CP-QP-047

Revision: 2



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:**

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Derivative Classifier: ☐ Unclassified or ☒ DUSA ENVPRO

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Responsible Line Manager:	Organization:	Signature:	Date:
Terrill W. Lemke	EPC-CP Team Leader	Signature on File	9-5-17
Responsible Line Manager:	Organization:	Signature:	Date:
Anthony R. Grieggs	EPC-CP Group Leader	Signature on File	9-6-17

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Inspecting Storm Water Runoff Samplers & Retrieving Samples for the MSGP	EPC-CP-QP-047	Page 2 of 26
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REVISION HISTORY

Document Number and Revision <i>[Include revision number, beginning with Revision 0]</i>	Effective Date <i>[Document Control Coordinator inserts effective date]</i>	Description of Changes <i>[List specific changes made since the previous revision]</i>
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.

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1.0 INTRODUCTION

Los Alamos National Security, LLC (LANS) through Environmental Protection and Compliance-Compliance Programs (EPC-CP) conducts stormwater monitoring activities required pursuant to the National Pollutant Discharge Elimination System (NPDES), Multi-Sector General Permit (MSGP) at Los Alamos National Laboratory (LANL). The MSGP requires LANL to monitor stormwater runoff from industrial sites relative to potential pollutants.

1.1 Purpose

This procedure describes the process for inspecting ISCO stormwater samplers and retrieving stormwater runoff samples from monitored outfall locations where LANS conducts stormwater monitoring activities pursuant to the NPDES, MSGP at LANL.

Inspections and sample retrieval conducted under this procedure should be documented using the Maintenance Connection Express™ (MC Express) web application on a tablet or notebook style computer. (In the event of electronic hardware or web application failure, personnel may use a printed hard copy to conduct inspection and sample retrieval.)

1.2 Scope

This procedure applies to the EPC-CP technical staff and subcontractor personnel (as applicable) conducting activities at automated stormwater sampling stations used for monitoring industrial stormwater discharge under the MSGP.

The MSGP Program Lead is the primary person with responsibility for the steps in this procedure. EPC-CP personnel will be appointed with responsibility for a subset of sampling stations.

1.3 Applicability

Stormwater runoff samples are collected at MSGP Program stations either with a refrigerated Avalanche® or ISCO 3700 automated sampler, single stage sampler or grab sample. ISCOs are designed to automatically collect water when the water surface is high enough to trigger a liquid level actuator and fill the sample bottles. Field personnel are required to inspect the sampling station while retrieving water samples during MSGP stormwater monitoring periods and at other intervals determined by the program or as directed by program personnel.

2.0 PRECAUTIONS AND LIMITATIONS

Hazards in the work described in this procedure are controlled thorough site specific Integrated Work Documents (IWDs). The hazard level of the activities in this procedure is **moderate**.

Personnel performing steps in this procedure that involve electrical equipment **MUST** be trained to LANL electrical safety standards as prescribed in the IWD before performing those steps.

Inspections may be discontinued during periods or conditions that make sites dangerous for worker safety or prevent personnel from safely accessing sites (e.g., weather-related events such as flash

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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.

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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

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- 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 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”.

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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”.

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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 dissimilar 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.

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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

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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.

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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

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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.

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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 interrupted.

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.

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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.

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9.0 ATTACHMENTS

Attachment 1: Screenshot Examples of EPC-CP-Form-1010.02 in MC Express

Attachment 2: Crosswalk of EPC-CP-Form-1010.02 Hard Copy Format to Electronic Format Example

Attachment 3: Flow Chart for Sample Retrieval

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Attachment 1: Screenshot Examples of EPC-CP-Form-1010.02 in MC Express

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MC Express

WORK ORDERS
All Repair Centers / All Shops

- My Open Work Orders**
Open work orders assigned to me **3**
- My Completed Work Orders**
Completed work orders assigned to me **1**
- All Open (Unassigned)**
All open work orders that are unassigned **13**
- All Open (Not Complete)**
All open work orders that are not complete **115**
- All Open (Overdue)**
All overdue work orders that are not complete **9**
- All Open**
All open work orders **200**
- All Closed**
All closed work orders **6,662**

ASSETS
All Repair Centers / All Shops

- Asset Hierarchy**
Hierarchical view of assets
- Asset List**
List view of all assets **2,955**

Refresh

MC Express

WORK ORDERS
My Open Work Orders

- #MSGP-59941**
MSGP07302
ISCO Sampler Inspection and Sample Retrieval
12/31/2017
- #MSGP-4342**
TA-3-22 Power & Steam Plant
MSGP Single Stage Sampler Inspection
12/30/2016
- #MSGP-1423**
MSGP07302
MSGP Visual Assessment Example
12/31/2017

3 Records

Refresh

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Attachment 1: Screenshot Examples of EPC-CP-Form-1010.02 in MC Express (cont.)

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MC Express

WORK ORDER: MSGP-59941
Summary

[MSGP07302] MSGP07302
TA-3-38 Carpenter Shop
Issued

Hard Copy Inspection Example

- Tasks 44
- Assignments 1
- Labor 0
- Parts 0
- Other Costs 0
- Attachments 2
- Asset History 52

More Work Order Detail...

Refresh List

MC Express

WORK ORDER: MSGP-59941
Tasks

ON ARRIVAL

- 20
Is sampler ON and functioning properly upon arrival?
Asset: [210C01437] ISCO 3700 Sampler
- 30
Does the sampler display "Sampler Inhibited"? If No, record specific message(s).
Asset: [210C01437] ISCO 3700 Sampler
- 40
Is sampler time delta < 1 min (MST)? If No, record adjustment
Asset: [210C01437] ISCO 3700 Sampler
- 50
Is sampler ON and functioning properly upon arrival?
Asset: [210J01522] ISCO Avalanche Sampler
- 60
Does the Avalanche display "Program Disabled"? If No, record specific message(s).
Asset: [210J01522] ISCO Avalanche Sampler
- 70
Is sampler time delta < 1 min (MST)? If No, record adjustment
Asset: [210J01522] ISCO Avalanche Sampler

Refresh List

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Attachment 1: Screenshot Examples of EPC-CP-Form-1010.02 in MC Express (cont.)

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MC Express

WORK ORDER: MSGP-59941
Edit Task

20
Is sampler ON and functioning properly upon arrival?
[210C01437] ISCO 3700 Sampler

Reading

Sampler knocked over by bear, power disconnected

Initials

Failed?

Yes

Not Applicable?

No

Complete?

No

Comments

Cancel Save

MC Express

WORK ORDER: MSGP-59941
Tasks

Water Collection Information

90
Is there evidence of flow? If YES (but no water collected), describe and record date/time of discharge.

100
Is any water collected? If YES, complete Bottle Information section.

110
If water was collected, record current refrigerator temperature (C).
Asset: [210J01522] ISCO Avalanche Sampler

120
If water was collected, record the pH measurement corresponding to the sample date/time: AVERAGE:...
Asset: [211C01137] ISCO pH and Temp Module

Water Retrieval information

140
Was sample volume RETRIEVED? If Yes, record total volume retrieved.

150
Was a Visual Assessment performed? If Yes, complete the MSGP Visual Assessment form (EPC-CP-TP-064).

Refresh List

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Attachment 1: Screenshot Examples of EPC-CP-Form-1010.02 in MC Express (cont.)

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This screenshot shows the 'ON DEPARTURE' section of the MC Express interface. At the top, there is a blue header with a back arrow, the text 'MC Express', and a menu icon. Below the header, a grey bar displays 'WORK ORDER: MSGP-59941' and 'Tasks' with a flag icon and a dropdown arrow. A black bar with white text reads 'ON DEPARTURE'. The main area contains two task entries, each with a flag icon, a red box with a number, a task description, and a right-pointing arrow. The first task is labeled '170' and asks 'Are electrical connections secure?'. The second task is labeled '180' and asks 'Record voltage of battery(ies) powering sampler. Voltage(s) >=11.7V?'. At the bottom, a blue bar contains an information icon, the text 'Refresh', a grid icon, and the text 'List'.

MC Express

WORK ORDER: MSGP-59941
Tasks

ON DEPARTURE

170
Are electrical connections secure?

180
Record voltage of battery(ies) powering sampler. Voltage(s) >=11.7V?

Refresh List

This screenshot shows the 'Equipment specific tasks' section of the MC Express interface. It features the same blue header and grey work order bar as the previous screenshot. A black bar with white text reads 'Equipment specific tasks'. The main area contains six task entries, each with a flag icon, a red box with a number, a task description, and a right-pointing arrow. The tasks are labeled 200 through 250. Task 200 asks 'Does the sampler pass the ISCO diagnostics test?' with asset '[210C01437] ISCO 3700 Sampler'. Task 210 asks 'Is intake tubing free/clear of debris?' with the same asset. Task 220 asks 'Does sample tubing pass suction test?' with the same asset. Task 230 asks 'Is sampler on upon departure?' with the same asset. Task 240 asks 'Has the actuator switch been reset to "Latch"?' with the same asset. Task 250 asks 'Does ISCO display "Sampler Inhibited" on departure?' with the same asset. At the bottom, a blue bar contains an information icon, the text 'Refresh', a grid icon, and the text 'List'.

MC Express

WORK ORDER: MSGP-59941
Tasks

Equipment specific tasks

200
Does the sampler pass the ISCO diagnostics test?
Asset: [210C01437] ISCO 3700 Sampler

210
Is intake tubing free/clear of debris?
Asset: [210C01437] ISCO 3700 Sampler

220
Does sample tubing pass suction test?
Asset: [210C01437] ISCO 3700 Sampler

230
Is sampler on upon departure?
Asset: [210C01437] ISCO 3700 Sampler

240
Has the actuator switch been reset to "Latch"?
Asset: [210C01437] ISCO 3700 Sampler

250
Does ISCO display "Sampler Inhibited" on departure?
Asset: [210C01437] ISCO 3700 Sampler

Refresh List

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Attachment 1: Screenshot Examples of EPC-CP-Form-1010.02 in MC Express (cont.)

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The screenshot shows the MC Express mobile application interface. At the top, there is a blue header with a back arrow, the text "MC Express", and a menu icon. Below the header, a grey bar displays "WORK ORDER: MSGP-59941" and "Tasks" with a flag icon and a dropdown arrow. A black bar labeled "Maintenance information" is below. The main area lists two items: Item 330 with a red flag icon and a red box containing "18", asking "Is any maintenance not described above completed during inspection? If Yes, describe." with a right arrow; and Item 340 with a red flag icon and a red box containing "19", asking "Is any follow-on maintenance not described above required? If Yes, describe." with a right arrow. At the bottom, a blue bar contains an information icon, the text "Refresh", a grid icon, and the text "List".

The screenshot shows the MC Express mobile application interface. At the top, there is a blue header with a back arrow, the text "MC Express", and a menu icon. Below the header, a grey bar displays "WORK ORDER: MSGP-59941" and "Tasks" with a flag icon and a dropdown arrow. A black bar labeled "Bottle information: IF bottle collected record bottle type (P or G), collection date & time, volume, and/or any ISCO messages" is below. The main area lists four items, each with a red flag icon and a red box containing a number: Item 360 (Bottle #1?, Asset: [210C01437] ISCO 3700 Sampler, red box "20"), Item 370 (Bottle #2?, Asset: [210C01437] ISCO 3700 Sampler), Item 380 (Bottle #3?, Asset: [210C01437] ISCO 3700 Sampler), and Item 390 (Bottle #4?, Asset: [210C01437] ISCO 3700 Sampler). Each item has a right arrow. At the bottom, a blue bar contains an information icon, the text "Refresh", a grid icon, and the text "List".

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Attachment 1: Screenshot Examples of EPC-CP-Form-1010.02 in MC Express (cont.)

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MC Express

WORK ORDER: MSGP-59941
Edit Task

360
Bottle #1?
[210C01437] ISCO 3700 Sampler

Reading

2/10/17 14:32; 1L poly; no more liquid detected

Initials

Failed?

No

Not Applicable?

No

Complete?

Yes

Comments

Cancel Save

MC Express

WORK ORDER: MSGP-59941
Status Update

Issued

New Status 21

Completed

Date

03/16/2017 12:03 PM

Percent Complete 100%

Labor Report Update 22

Select Comments to Add.....

Jane Admin

Cancel Save

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Attachment 1: Screenshot Examples of EPC-CP-Form-1010.02 in MC Express (cont.)

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MC Express

WORK ORDER: MSGP-59941
Status Update

Signature **23**

[\(Remove\)](#)

James Admin

Cancel Save

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Attachment 2: Crosswalk of EPC-CP-Form-1010.02 Hard Copy Format to Electronic Format

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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)
Reason: Hard Copy ISCO Sampler Inspection and Sample Retrieval

Target: 12/31/2017
Priority/Type: / Inspection
Department: Utilities and Infrastructure

 MSGP Program
 RG121.9
 TA-3-38 Carpenter Shop
 Monitored Outfall (073)
 MSGP07302

Contact: Admin, Jane
Phone: 123-4567

Tasks

#	Description	Meas.	No	N/A	Yes
ON ARRIVAL					
1 20	ISCO 3700 Sampler [210C01437] Is sampler ON and functioning properly upon arrival?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 30	ISCO 3700 Sampler [210C01437] Does the sampler display "Sampler Inhibited"? If No, record specific message(s).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 40	ISCO 3700 Sampler [210C01437] Is sampler time delta < 1 min (MST)? If No, record adjustment		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50	ISCO Avalanche Sampler [210J01522] Is sampler ON and functioning properly upon arrival?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
60	ISCO Avalanche Sampler [210J01522] Does the Avalanche display "Program Disabled"? If No, record specific message(s).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
70	ISCO Avalanche Sampler [210J01522] Is sampler time delta < 1 min (MST)? If No, record adjustment		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water Collection information					
4 90	Is there evidence of flow? If YES (but no water collected), describe and record date/time of discharge.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 100	Is any water collected? If YES, complete Bottle Information section.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 110	ISCO Avalanche Sampler [210J01522] If water was collected, record current refrigerator temperature (C).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water Retrieval information					
8 140	Was sample volume RETRIEVED? If Yes, record total volume retrieved.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 150	Was a Visual Assessment performed? If Yes, complete the MSGP Visual Assessment form (EPC-CP-TP-064).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ON DEPARTURE					
10 170	Are electrical connections secure?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 180	Record voltage of battery(ies) powering sampler. Voltage(s) >=11.7V?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment specific tasks					
12 200	ISCO 3700 Sampler [210C01437] Does the sampler pass the ISCO diagnostics test?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 210	ISCO 3700 Sampler [210C01437] Is intake tubing free/clear of debris?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 220	ISCO 3700 Sampler [210C01437] Does sample tubing pass suction test?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 230	ISCO 3700 Sampler [210C01437] Is sampler on upon departure?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 240	ISCO 3700 Sampler [210C01437] Has the actuator switch been reset to "Latch"?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 250	ISCO 3700 Sampler [210C01437] Does ISCO display "Sampler Inhibited" on departure?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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260	ISCO Avalanche Sampler [210J01522] Does the sampler pass the ISCO diagnostics test?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
270	ISCO Avalanche Sampler [210J01522] Is intake tubing free/clear of debris?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
280	ISCO Avalanche Sampler [210J01522] Does sample tubing pass suction test?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
290	ISCO Avalanche Sampler [210J01522] Is sampler on upon departure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
300	ISCO Avalanche Sampler [210J01522] Has the actuator switch been reset to "Latch"?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
310	ISCO Avalanche Sampler [210J01522] Does Avalanche display "Program Disabled" on departure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintenance information				
18	330	Is any maintenance not described above completed during inspection? If Yes, describe.	<input type="checkbox"/>	<input type="checkbox"/>
19	340	Is any follow-on maintenance not described above required? If Yes, describe.	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>
	370	ISCO 3700 Sampler [210C01437] Bottle #2?	<input type="checkbox"/>	<input type="checkbox"/>
	380	ISCO 3700 Sampler [210C01437] Bottle #3?	<input type="checkbox"/>	<input type="checkbox"/>
	390	ISCO 3700 Sampler [210C01437] Bottle #4?	<input type="checkbox"/>	<input type="checkbox"/>
	400	ISCO 3700 Sampler [210C01437] Bottle #5?	<input type="checkbox"/>	<input type="checkbox"/>
	410	ISCO 3700 Sampler [210C01437] Bottle #6?	<input type="checkbox"/>	<input type="checkbox"/>
	420	ISCO 3700 Sampler [210C01437] Bottle #7?	<input type="checkbox"/>	<input type="checkbox"/>
	430	ISCO 3700 Sampler [210C01437] Bottle #8?	<input type="checkbox"/>	<input type="checkbox"/>
	440	ISCO 3700 Sampler [210C01437] Bottle #9?	<input type="checkbox"/>	<input type="checkbox"/>
	450	ISCO 3700 Sampler [210C01437] Bottle #10?	<input type="checkbox"/>	<input type="checkbox"/>
	460	ISCO 3700 Sampler [210C01437] Bottle #11?	<input type="checkbox"/>	<input type="checkbox"/>
	470	ISCO 3700 Sampler [210C01437] Bottle #12?	<input type="checkbox"/>	<input type="checkbox"/>
	480	ISCO Avalanche Sampler [210J01522] Bottle #1?	<input type="checkbox"/>	<input type="checkbox"/>
	490	ISCO Avalanche Sampler [210J01522] Bottle #2?	<input type="checkbox"/>	<input type="checkbox"/>
	500	ISCO Avalanche Sampler [210J01522] Bottle #3?	<input type="checkbox"/>	<input type="checkbox"/>
	510	ISCO Avalanche Sampler [210J01522] Bottle #4?	<input type="checkbox"/>	<input type="checkbox"/>

Labor Report

Completed: 5/30/2017 4:44:00 PM

Report: Jane Admin


5/30/2017
Signature / Name
Date

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

WO ID: _____ Page ____ of ____

21 Date: _____ Time: _____

22 Name/Z#: _____

Name/Z#: _____

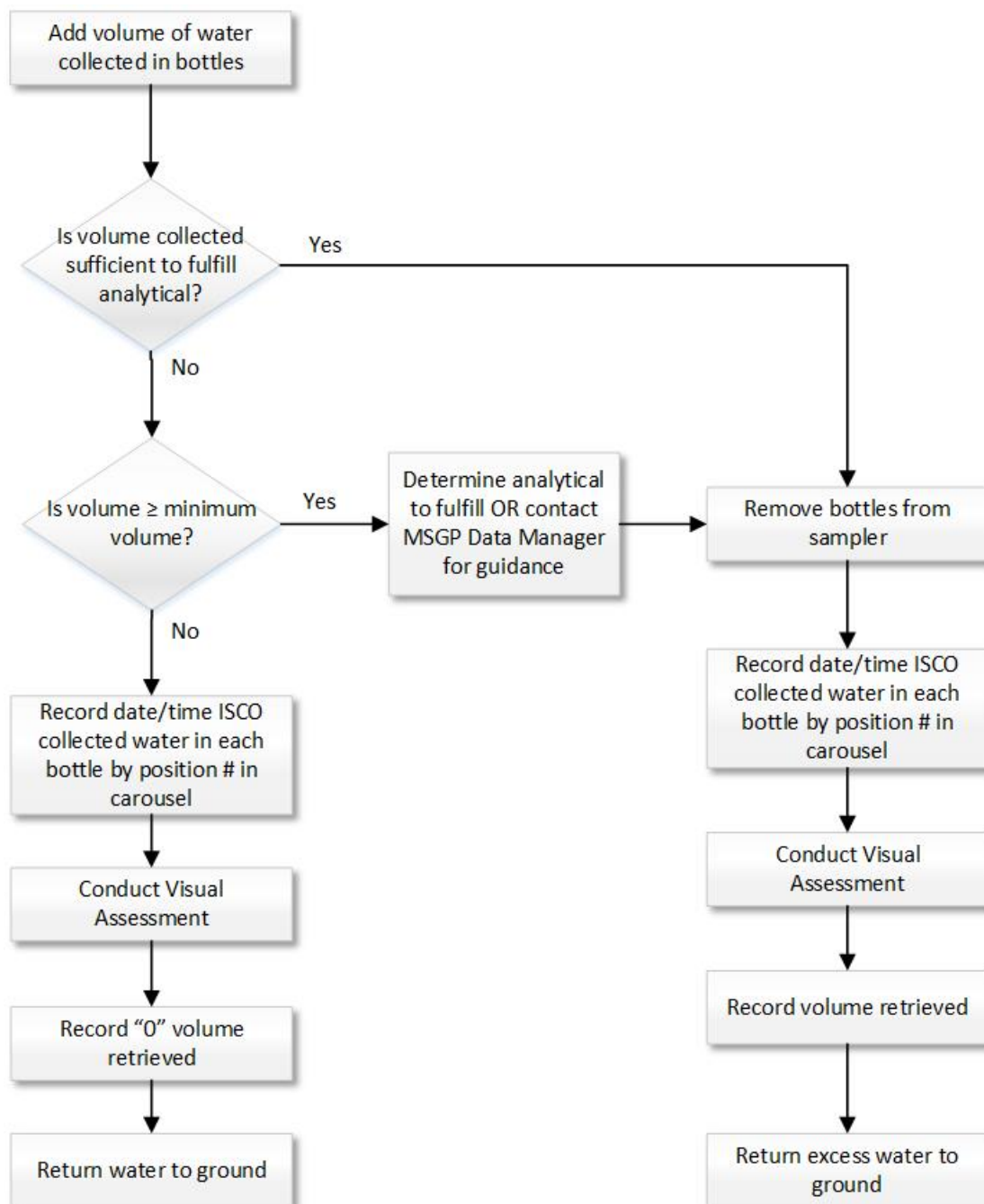
23 Lead Signature: _____

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

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Attachment 3: Flow Chart for Sample Retrieval

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EPC-CP-QP-048

Revision: 3



Effective Date: 10/05/2017

Next Review Date: 10/05/2020

Environment, Safety, and Health Directorate

Environmental Protection and Compliance—Compliance Programs

Quality Procedure

Processing MSGP Stormwater Samples

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Derivative Classifier: ☐ Unclassified or ☒ DUSA ENVPRO

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Processing MSGP Stormwater Samples	EPC-CP-QP-048	Page 2 of 14
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REVISION HISTORY

Document Number and Revision <i>[Include revision number, beginning with Revision 0]</i>	Effective Date <i>[Document Control Coordinator inserts effective date]</i>	Description of Changes <i>[List specific changes made since the previous revision]</i>
ENV-RCRA-QP-048, Rev. 0	07/2011	New document
ENV-CP-QP-048, Rev. 1	09/2013	Annual Review and Revision, new format, process change, and new organization name.
EPC-CP-QP-048, Rev. 2	06/05/2017	Review and Revision, new format, and new organization name, clarified steps, updated attachments.
EPC-CP-QP-048 R3	10/05/2017	Updated Sample Collection Log instructions, added step describing evidence of flow, and added section for addressing excess stormwater material.

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1.0 INTRODUCTION

Los Alamos National Security, LLC (LANS) through Environmental Protection and Compliance-Compliance Programs (EPC-CP) conducts stormwater monitoring activities required pursuant to the National Pollutant Discharge Elimination System (NPDES), Multi-Sector General Permit (MSGP) at Los Alamos National Laboratory (LANL). The MSGP requires LANL to monitor stormwater runoff from industrial sites relative to potential pollutants.

1.1 Purpose

This procedure describes the process for filtering, preserving and preparing stormwater samples for shipment to an analytical laboratory from monitored outfall locations.

1.2 Scope

This procedure applies to the EPC-CP technical staff and subcontractor personnel (as applicable) who conduct processing and chemical preservation of stormwater samples either in the TA-59-1 Stormwater Laboratory or in the field.

The MSGP Program Lead is the primary person responsible for developing and updating this procedure. EPC-CP personnel will be appointed with responsibility for a subset of sampling stations.

1.3 Applicability

Stormwater samples are collected in the field either with a refrigerated Avalanche® or ISCO 3700 automated sampler, single stage sampler or grab sample. When in-line filtration is not possible, sample filtration along with chemical preservation will be conducted immediately following sample retrieval in the field or in the EPC-CP Stormwater Laboratory (TA-59-01).

Sample collection, submission, and analysis is conducted using EPA and New Mexico Water Quality Control Commission guidelines. Monitoring samples are collected and analyzed according to test procedures approved under Title 40 of the Code of Federal Regulations (40 CFR) Part 136 unless other test procedures have been specified in the MSGP permit. Quantitation limits associated with these test procedures are sufficiently sensitive to meet MSGP permit limits.

2.0 PRECAUTIONS AND LIMITATIONS

Hazards in the work described in this procedure are controlled through site specific Integrated Work Documents (IWDs). The hazard level for the activities in this procedure is **moderate**.

Use only sample containers that are documented to meet or exceed "US EPA Specification and Guidance for Contaminant-Free Sample Container" (Publication 9240.05A, EPA/540/R-93/051, December 1992). Never clean or re-use sample containers. Keep containers in a clean, dry place until a sample is ready for processing and transfer to the appropriate container(s).

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3.0 PREREQUISITE ACTIONS

3.1 Planning and Coordination

Promptly schedule and complete all stormwater processing to meet the analytical holding time requirements identified in the MSGP Sampling and Analysis Plan or as requested by the MSGP Program Lead.

The MSGP Data Manager will generate Sample Collection Log/Field Chain of Custody (SCL) form(s) at the beginning of the MSGP monitoring season and/or the beginning of each MSGP monitoring quarter. The MSGP Data Manager will generate Chain of Custody/Analysis Request(s) from the Environmental Information Management (EIM) database as stormwater is collected. If the MSGP Data Manager is not available, forms may be obtained from the Sample Management Office (SMO).

3.2 Tools and Equipment

Ensure the following equipment is available:

- Safety glasses with side shields
- Nitrile gloves
- Lab coat
- Eyewash in Stormwater Lab (or portable eyewash in the field)
- Sample Collection Log/Field Chain of Custody Form
- Chain of Custody/Analysis Request
- Copy of the MSGP Sampling and Analysis Plan
- Sample containers (glass and poly bottles)
- Sample container lids
- Acid and base preservatives
- Clean silicon (e.g. Tygon) tubing
- Portable peristaltic pump (e.g. Geopump or equivalent)
- 0.45 micron and/or 0.10 micron cartridge filters (where applicable)
- Paper Towels
- Coolers with ice, Blue Ice[®], or equivalent
- Ball point pen
- Permanent marker
- Chain-of-custody seals/tape
- Copy of this procedure
- Copy of the Integrated Work Documents (IWDs)
- Cell phone (only government cell phones with batteries removed are allowed in secure areas)

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4.0 PROCESSING SAMPLES

In this procedure, sample collection bottles are the bottles in which the sample was collected in the field. Sample containers are containers into which the original sample may be transferred (as necessary) during processing and shipped to the analytical laboratory.

4.1 Preparation for Processing Samples

1. Don nitrile gloves, safety glasses with side shields, and lab coat. Long pants are required and no open toed shoes are allowed. Prior to processing samples, confirm eyewash is operational.
2. On the work bench arrange sample collection bottles in order from one MSGP sampling location according to the ISCO carousel number marked on the bottle.

CAUTION

Process only one sample set (i.e., samples listed on one Sample Collection Log/Field Chain of Custody form) at a time to ensure stormwater from different locations is not co-mingled.

3. Cross check the Location ID (e.g. MSGP00201) on the sample bottles with the requested analysis for that location on the SCL form (see example in Attachment 1).
4. Write the following information on the SCL:
 - Sampler Inspection and Sample Retrieval form (QP-047) identification number (e.g. Work Order: MSGP-xxxx)
 - Date and time the sample was collected in the field (e.g., date/time automated sampler filled sample bottles or a grab sample was taken)
 - pH measurement taken at the time the sample was collected in the field (as necessary)
 - Indicate if evidence of flow was recorded by writing "Y" for Yes or "N" for No
 - Indicate if a visual assessment was performed by writing "Y" for Yes or "N" for No
 - Visual Assessment form (QP-064) identification number (e.g., Visual WO#: MSGP-xxxx) if applicable
 - Date and time the visual assessment was performed if applicable
 - Printed name of person collecting the sample
 - Date and time the sample was RETRIEVED
5. Ensure the sample container type and chemical preservation type is correct for the analysis requested on the SCL (e.g., 500 ML POLY, HNO₃). Note any deviation from the planned sample container volume or type on the SCL.
6. Indicate if each sample on the SCL was collected by writing Y for Yes or N for No under "Collected Y/N".

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7. Determine which samples require filtration and chemical preservation as requested on the SCL. Refer to Sections 4.2 and 4.3 as needed. Requirements are also identified in the most current revision of the MSGP Sampling and Analysis Plan.
8. Mark on each container lid the 3-digit outfall ID, required analysis, filtration requirement, and preservative requirement."
9. Document any other deviations from "As Planned" conditions in the "As Collected" column on the SCL (e.g., change the Field Matrix code from rain (WT) to snowmelt (WM)).

4.2 Filtering Samples

Filter samples if specified on the SCL or if an in-line filter was not used during sample collection.

1. Don nitrile gloves and safety glasses with side shields. Long pants are required and no open toed shoes are allowed. Prior to filtering samples, confirm eyewash is operational.
2. Ensure the sample container volume and container type (e.g., 1 L GLASS) is correct for the analysis requested on the SCL. Note any deviation from the planned sample container volume or type on the SCL.
3. Select the appropriate sized cartridge filter (e.g., 0.10µm or 0.45µm).
4. Attach an appropriate amount of silicone tubing to both ends of the cartridge filter. Place the filter upstream of the peristaltic pump to prevent over-pressurization. If the sample contains a significant amount of sediment, a pre-filter of the same size or larger micron capacity may be used.
5. For split samples(filtered and unfiltered), turn the sample collection bottle upside down multiple times to ensure all sediment is loose from the bottom of the bottle and move the intake tube up and down through the sample during filtration. A sample collected solely for filtration can be filtered without being homogenized by shaking.
6. Replace the filter if flow diminishes, the pump begins to make a grinding sound, or the tubing is forced off the filter by back pressure.
7. Add a check mark next to the filtered requirement previously marked on the lid to indicate that filtration has been completed.
8. Clean and dry the exterior of sample container and check sample container for leakage and breakage.
9. If no further processing is required (e.g., chemical preservation), apply a chain-of-custody seal/tape around the bottle and lid and sign and date the seal/tape.
10. Remove filter and tubing when filtration of one sample set (location) has been completed. A new filter must be used with each new sample ID.

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4.3 Preserving Unfiltered and Filtered Samples

Preservation entails the addition of acid or base to a sample. Acids used include hydrochloric acid (HCl), nitric acid (HNO₃), and sulfuric acid (H₂SO₄). Bases used in preservation include sodium hydroxide (NaOH).

CAUTION

The preservatives are strong acids and bases that can cause severe burns. Extreme care should be taken when using these acids and bases. **Review the appropriate Material Safety Data Sheet or Safety Data Sheet for specific guidelines prior to preserving samples.**

1. Don nitrile gloves, safety glasses with side shields, and a lab coat. Long pants are required and no open toed shoes are allowed. Prior to chemically preserving samples, confirm eyewash is operational.
2. Ensure the sample container volume, type, and preservation type is correct for the analysis requested on the SCL or Sampling and Analysis Plan (e.g., 500 ML POLY, HNO₃). Note any deviation from the planned sample container volume or type on the SCL.
3. Select the pre-measured preservative size that matches the sample container size.
Note: If you only have one size pre-measured preservative that does not match the sample container size you may need to use more than one. For example, if you have a 1 liter sample container and 500 ml pre-measured preservative vial, you would need to add two preservative vials to the sample container.

Never "split" a larger volume pre-measured vial to preserve a smaller volume container (e.g., do not pipette from a 1 liter pre-measured preservative vial to preserve a 500 mL sample) as error in measurement precision may lead to a risk of violating Department of Transportation shipping requirements.
4. Add the preservative (acid or base) to the sample and securely affix the lid to the container.
5. Agitate the preserved sample by turning the container upside down two to three times.
6. Add a check mark next to the preservation type previously marked on the lid to indicate that preservation has been completed.
7. Clean and dry the exterior of sample container and check sample container for leakage and breakage.
8. Apply a chain-of-custody seal/tape around the bottle and lid and sign and date the seal/tape.

4.4 Handling Excess Stormwater

All efforts will be made to minimize the amount of stormwater sample brought into the TA-59-1 Stormwater Lab. Field personnel will attempt to retrieve only the volumes needed to fulfill the requested analyses from the current MSGP Sampling and Analysis Plan.

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If any excess stormwater sample exists after processing has been completed:

- Ensure the container is labeled with the site of origin, date and time sample was collected, and "Return to Site".
- Place the container in the designated storage location in the MSGP Stormwater Lab,
- Return the sample to the site of origin as soon as possible and discharge at the sampler location.

If the excess stormwater has been altered (e.g. tap water or preservative added) contact the Waste Management Coordinator for TA-59-1 for further instruction.

4.5 Submit Samples for Shipping to Offsite Analytical Laboratory

1. Deliver completed SCL(s) to the MSGP Data Manager.
2. The MSGP Data Manager will process the sample information in the EIM system, capturing any documented deviations from planned conditions (as noted on the SCLs), and generate Chain of Custody/Analysis Request (COC) form(s) and sample container labels to reflect the "as collected" samples (see examples in Attachments 2 and 3).
3. In the "Received By" section of the SCL, enter the COC number (e.g., 2017-XXXX).
4. Don nitrile gloves and safety glasses.
5. Ensure the sample containers are securely sealed and wiped dry.
6. Cross check that the Sample ID on the SCL matches the Field Sample ID on the COC.
7. Carefully compare the information from the SCL and lid of each container to apply the correct labels to the sample containers.
8. Place the sample(s) in the cooler with sufficient Blue Ice® (or equivalent) to maintain the required preservation temperature ($\leq 4^{\circ}\text{C}$). Cushioning material (e.g., bubble wrap) may be used to separate containers to avoid breakage during transport.
9. Place the SCL(s) and COC(s) in a zip lock type bag, seal, and place in the cooler with samples.
10. Transport samples to the Sample Management Office (SMO) using a government vehicle or approved subcontractor vehicle only. Samples may be delivered during SMO business hours, but must be delivered by 2pm for same day shipping. Coordinate with the SMO for delivery during other times or for delivery of samples that have limited holding times.

Note: If submitting samples to the SMO will be delayed, place sample containers with SCL(s) in the Stormwater Laboratory refrigerator and ensure the refrigerator is locked.
11. On the COC, the person submitting the sample(s) will print and sign their name, date, and record the time under "Relinquished By." The SMO personnel accepts the sample(s) by printing and signing their name, dating, and recording the time under "Received By."
12. Retain a copy of the signed Chain of Custody/Analysis Request.

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13. On the SCL, the person submitting the sample(s) will enter the data and time under "Relinquished By" that matches the data and time "Relinquished by" on the COC and write the COC/Lab Request# (e.g., 2017-xxxx) under "Received by."
14. Ensure the SMO makes a copy of the SCL(s) to accompany the COC and samples. Retain the original SCL(s) for the MSGP program.
15. Deliver the copy of the signed COC and original SCL(s) to the MSGP Data Manager.

5.0 TRAINING

The training method for this procedure is "self-study" (reading). The following personnel require training before implementing this procedure:

- EPC-CP technical staff and subcontract or other personnel who process stormwater samples for the MSGP.

Personnel performing this procedure will be familiar with the most current versions of the following procedures and operation manuals:

- EPC-CP MSGP Sampling and Analysis Plan for the current monitoring year
- EPC-CP-QP-047 Inspecting Stormwater Runoff Samplers and Retrieving Samples for the MSGP

6.0 RECORDS

Records generated by this document will be submitted to the ADESH Records Management designated point of contact or document manager in accordance with P1020-1, *Laboratory Records Management* and with ADESH-AP-006, *Records Management Plan*. Below is a list of records generated as a result of implementing this procedure.

- Sample Collection Log/Field Chain of Custody Form
- Copy of the Chain of Custody/Analysis Request
- Copy of log book entry(s) (if a log book is used)
- Other pertinent field or lab notes

7.0 DEFINITIONS AND ACRONYMS

7.1 Definitions

See LANL *Definition of Terms*.

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7.2 Acronyms

See LANL *Acronym Master List*.

40 CFR	Title 40 of the Code of Federal Regulations
COC	Chain of Custody/Analysis Request
EIM	Environmental Information Management
EPC-CP	Environmental Protection and Compliance – Compliance Programs
IWD	Integrated Work Document
LANL	Los Alamos National Laboratory
LANS	Los Alamos National Security, LLC
MSGP	Multi-Sector General Permit
NPDES	National Pollutant Discharge Elimination System
SCL	Sample Collection Log/Field Chain of Custody
SMO	Sample Management Office

8.0 REFERENCES

None

9.0 ATTACHMENTS

Attachment 1: Sample Collection Log/Field Chain of Custody Example

Attachment 2: Sample Container Labels Example

Attachment 3: Chain of Custody/Analysis Request Example

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ATTACHMENT 1: SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY EXAMPLE

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Los Alamos National Laboratory

MSGP Quarter 3

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 11198

EVENT NAME: MSGP 2017

SAMPLE ID: MSGP-17-131989

WORK ORDER: MSGP-59823

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY):		<u>4/01/17</u>	FIELD MATRIX:	WT	
TIME COLLECTED (HH:MM):		<u>16:03</u>	MEDIA:		
PRS ID:		<u>1</u>	SAMPLE TECH CODE:	APS	
LOCATION ID:	MSGP05301		FIELD PREP:	UF	
LOCATION TYPE:			FIELD QC TYPE:	REG	
TOP DEPTH:			SAMPLE USAGE:	COMP	
BOTTOM DEPTH:			EXCAVATED:		YES / NO / <u>NA</u>

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
	MSGP-CN(TOTAL)	500 ML POLY	1	NAOH	<u>Y</u>	
	MSGP-COD+NH3	500 ML POLY	1	H2SO4 ICE	<u>Y</u>	
	MSGP-Mg+Se+Hg	500 ML POLY	1	HNO3 ICE	<u>Y</u>	

SAMPLE COMMENTS:

LOCATION COMMENTS:

FIELD PARAMETERS:

pH 6.7 Flow (Evidence) Y Visual Inspection Y SU Visual WO# MSGP-58866 Visual performed Date/Time 4/3/17 14:36

COLLECTED BY (PRINT): Jane Doe Retrieved 4/3/17 14:36

RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time
		<u>See COC</u> <u>2017-1326</u>	<u>4/12/17</u> <u>15:10</u>
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

Report Date: 07/21/2017

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ATTACHMENT 2: SAMPLE CONTAINER LABELS EXAMPLE

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Los Alamos National Laboratory	
Sample ID: MSGP-17-131786	
Container: 500 ML POLY	1 of 1
Preservative: HNO3 ICE	
Analysis: NPDES-AI-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-AI-Total Recoverable	
Date: 04/01/2017	Time: 16:03

[illegible]

EPC-DO-QP-101Revision: **3**

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:**

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REVISION HISTORY

Document Number and Revision <i>[Include revision number, beginning with Revision 0]</i>	Effective Date <i>[Document Control Coordinator inserts effective date]</i>	Description of Changes <i>[List specific changes made since the previous revision]</i>
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.

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1.0 INTRODUCTION

This Environmental Protection and Compliance Division (EPC-DO) procedure describes how to determine whether an unplanned release, spill, fire, or other event needs to be reported under environmental regulations and how to fulfill all immediate reporting requirements (within the first 24 hours). Emergency and abnormal event notification requirements for reporting to Laboratory and DOE management are specified in [PD1200, *Emergency Management*](#), and [P322-4, *Performance Improvement from Abnormal Events*](#). Environmental reporting requirements regarding releases or other events are included in this procedure.

1.1 Purpose

This procedure describes the actions that must be performed within the first 24 hours of the release. This procedure does **not** cover the response procedures for “continuous releases” under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Emergency Planning and Community Right-to-Know Act (EPCRA) (see definitions) nor the follow-up notifications and reports.

1.2 Applicability

This procedure applies to EPC-DO on-call representatives and subject matter experts (SMEs) who must respond to any release, spill, or event at the Laboratory that may require immediate notification to local, state or federal regulatory agencies. For notifications to Pueblo Environmental Departments refer to [ENV-DO-QP-111, *Reporting Environmental Releases to Pueblo Governments*](#).

2.0 PRECAUTIONS AND LIMITATIONS

The work described in this procedure includes field work that does not require an Integrated Work Document (IWD) and is rated as having a **LOW hazard** level.

3.0 RESPONSIBILITIES

The following personnel require training before implementing this procedure:

- EPC managers, designated on-call representatives, and SMEs who may be asked to fulfill immediate reporting requirements during release-related exercises or during actual releases

Annual retraining to this procedure is required. This procedure will be reviewed biennially by all affected personnel and updated as necessary.

Training to this procedure will be by “self-study” (reading) and is documented in accordance with the trainee’s organization’s procedure for training.

Actions specified within this procedure, unless preceded with “should” or “may”, are to be considered mandatory (i.e., “shall”, “will”, “must”).

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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.

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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

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- 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.

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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.

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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

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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).

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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

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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.

Step	Action						
1	Obtain an estimate of the quantity and type of material released (e.g. 4 pounds of chlorine gas or 150 curies of tritium).						
2	Compare this quantity against the RQs provided in 40 CFR Table 302.4 and 40 CFR §355, Appendices A and B.						
3	<p>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.</p> <p>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.</p> <p>Immediate evaluation – RQ comparison (of a radioactive material release)</p> <table> <tr> <td>If the release...</td><td>Then...</td></tr> <tr> <td>Is equal to or greater than the RQ</td><td>Proceed to section 4.10 <i>Reporting a Release or Event</i>.</td></tr> <tr> <td>Is less than the RQ</td><td>No immediate reporting is required; contact EPC environmental health physicist to complete follow-up dose assessment.</td></tr> </table>	If the release...	Then...	Is equal to or greater than the RQ	Proceed to section 4.10 <i>Reporting a Release or Event</i> .	Is less than the RQ	No immediate reporting is required; contact EPC environmental health physicist to complete follow-up dose assessment.
If the release...	Then...						
Is equal to or greater than the RQ	Proceed to section 4.10 <i>Reporting a Release or Event</i> .						
Is less than the RQ	No immediate reporting is required; contact EPC environmental health physicist to complete follow-up dose assessment.						
4	<p>If this is a release of non-rad material, it is reportable if the RQ is exceeded.</p> <table> <tr> <td>If the amount released is..,</td><td>Then...</td></tr> <tr> <td>Equal to or greater than the RQ</td><td>Proceed to Section 4.10 <i>Reporting a Release or Event</i>.</td></tr> <tr> <td>Less than the RQ</td><td>Proceed to Step 5</td></tr> </table>	If the amount released is..,	Then...	Equal to or greater than the RQ	Proceed to Section 4.10 <i>Reporting a Release or Event</i> .	Less than the RQ	Proceed to Step 5
If the amount released is..,	Then...						
Equal to or greater than the RQ	Proceed to Section 4.10 <i>Reporting a Release or Event</i> .						
Less than the RQ	Proceed to Step 5						
5	Continue to re-evaluate the release as new data becomes available. Perform Steps 1 through 4 as necessary.						

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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](#).

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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 : <ul style="list-style-type: none"> • 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

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	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

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- 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

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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

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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

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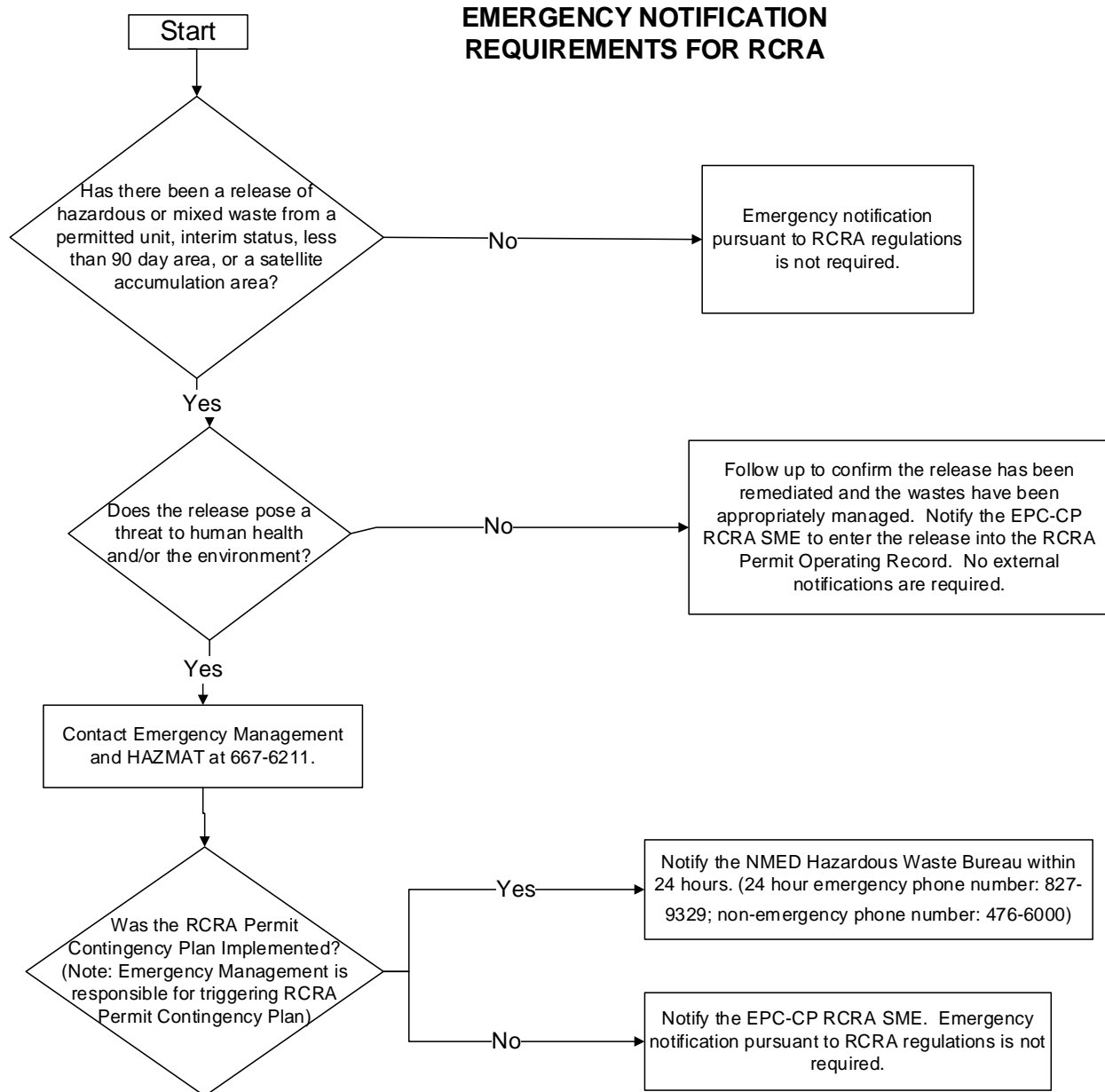
- National Response Center (NRC) Web Site: <http://www.nrc.uscg.mil/>
- NMWQCC Regulations, 20.6.2 NMAC, dated December 1, 2001
- P407, Water Quality
- P1020-1, Laboratory Records Management
- ADESH-AP-006, Records Management Plan

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



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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).

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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.

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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.