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Author(s):	Gallegos, Marc Raymond
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STORMWATER POLLUTION PREVENTION PLAN

Sigma Complex & MST Metal Fabrication Facilities

Los Alamos National Laboratory

A requirement of the
NPDES MULTI-SECTOR GENERAL PERMIT
NMR053195 (LANS)
for Stormwater Discharges Associated with Industrial Activities

Prepared by:
Los Alamos National Laboratory
Environmental Compliance
Programs
PO Box 1663 MS K490
Los Alamos, NM 87545

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Sigma Complex & MST Metal Fabrication Facilities
Storm Water Pollution Prevention Plan
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SIGMA COMPLEX & METAL FABRICATION FACILITIES
STORMWATER POLLUTION PREVENTION PLAN

PREFACE

This Stormwater Pollution Prevention Plan (SWPPP) was developed in accordance with the provisions of the Clean Water Act (33 U.S.C. §§1251 et seq., as amended), and the Multi-Sector General Permit for Stormwater 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 AA – Subsection AA1 – Fabricated Metal Product Manufacturing Facilities. The applicable stormwater discharge permit is EPA General Permit Number NMR050000 (Los Alamos National Security (LANS) (U.S. EPA, January 2009). Contents of the June 2015 Multi-Sector General Permit can be viewed at http://cfpub.epa.gov/npdes/stormwater/msgp.cfm

This SWPPP applies to discharges of stormwater from the operational areas of the Sigma Complex & MST Metal Fabrication Facilities at Los Alamos National Laboratory (referred to as LANL or the "Laboratory"). 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 Sigma Complex & MST Metal Fabrication Facilities.

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

SECTION 1: FACILITY DESCRIPTION AND CONTACT INFORMATION

1.1 Facility Information

Facility Information

Name of Facility: Sigma Complex & MST Metal Fabrication Facilities, Buildings 0141, 0159, and 0169

Street: Los Alamos National Laboratory, Technical Area 03

City: Los Alamos State: NM ZIP Code: 87545

County or Similar Subdivision: Los Alamos County

Permit Tracking Number: NMR050000 (if covered under a previous permit)

Latitude/Longitude (Use **one** of three possible formats, and specify method)

Latitude:	Longitude:
1. 3 5 º 5 2 ' 1 8" N (degrees, minutes, seconds)	1. 1 0 6 º 1 9 ' 0 4" W (degree, minutes, seconds)
2. _ _ º _ _ . _ _' N (degrees, minutes, decimal)	2. _ _ º _ _ . _ _' W (degrees, minutes, decimal)
3. _ _ . _ _ _ _ º N (decimal)	3. _ _ . _ _ _ _ º W (decimal)

Method for determining latitude/longitude (check one):

☐ USGS topographic map (specify scale:_____) ☒ EPA Web site ☐ GPS

☐ Other (please specify): _____

Is the facility located in Indian Country? ☐ Yes ☒ No

If yes, name of Reservation, or if not part of a Reservation, indicate "not applicable."_____

_____

Is this facility considered a Federal Facility? ☒ Yes ☐ No

Estimated area of industrial activity at site exposed to storm water: 9.6 (acres)

Discharge Information

Does this facility discharge storm water into an MS4? ☐ Yes ☒ No

If yes, name of MS4 operator: _____

Name(s) of water(s) that receive storm water from your facility Sandia Canyon and Upper Mortandad Canyon (Tributaries to the Rio Grande)

Are any of your discharges directly into any segment of an “impaired” water? ☒ Yes ☐ No

If Yes, identify name of the impaired water (and segment, if applicable): Sandia Canyon (Sigma Canyon to NPDES outfall 001) Assessment Unit NM-9000.A_047 and Mortandad Canyon (within LANL) Assessment Unit NM-9000.A_042

Identify the pollutant(s) causing the impairment: Total Aluminum, PCBs, Acute Copper, Dissolved Thallium and Adjusted Gross Alpha.

For pollutants identified, which do you have reason to believe will be present in your discharge? Dissolved Thallium

For pollutants identified, which have a completed TMDL? None

Do you discharge into a receiving water designated as a Tier 2 (or Tier 2.5) water? ☐ Yes ☒ No

Are any of your storm water discharges subject to effluent guidelines? ☐ Yes ☒ No

If Yes, which guidelines apply?

Primary SIC Code or 2-letter Activity Code: 3398, 3399,3441

Identify your applicable sector and subsector: Sectors F (subsector F5) and AA (subsector AA1)

1.2 Facility Contact Information/Responsible Parties

Facility Operator (s):
Name: LANS, LLC
Address: PO BOX 1663 MS K490
City, State, Zip Code: LOS ALAMOS, NM 87545
Telephone Number: (505) 665-3741

SWPPP Contact:
Name: Holly Wheeler
Telephone number: (505) 667-1312
Email address: hbenson@lanl.gov

Facility Contact:
STO-FOD Office: (505) 667-7988
STO Duty Officer #1: (505) 664-3865
STO Duty Officer #2: (505) 664-4444
Fax number: (505) 665-5236

1.3 Storm Water Pollution Prevention Team (PPT)

Staff Names	Individual Responsibilities
STO-FOD Division Leader	Responsible for the operations and maintenance of all aspects of the buildings and facilities listed within this Plan.
STO-FOD DSESH Group Leader	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.
STO-FOD Deployed Environmental Professional (DEP)	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 Sigma Complex personnel and those at "no exposure" facilities within the STO FOD regarding implementation of the MSGP and this SWPPP. Lastly, the DEP conducts routine inspections and visual assessments as required by the MSGP (if trained and qualified to do so). 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.
STO-FOD Facility Manager	Responsible for managing the operation and maintenance of all aspects of the buildings and facilities listed within this Plan. The Facility Manager shall provide review and ensure coordination with core personnel and the PPT, as appropriate, when tenants within the STO FOD propose a new process or a new site or operation that may be subject to the MSGP.
Materials Science and Technology-Metallurgy (MST-6) Group Leader	Responsible for managing the operation of all MST-6 staff and equipment. MST-6 is currently managing beryllium and metal fabrication activities inside TA-03-0066. This includes performing oversight and periodic walk downs to ensure implementation of the requirements of the MSGP and this SWPPP at sites subject to the MSGP.
Condensed Matter and Magnet Science (CMMS) Group Leader	Responsible for managing the operation of all CMMS staff and equipment. This includes performing oversight and periodic walk downs to ensure implementation of the requirements of the MSGP and this SWPPP at sites subject to the MSGP.
STO-FOD Waste Management Coordinator Team	Responsible for overseeing waste management activities for the STO-FOD Division and for the TA-03-0066 facility.

EPC-CP MSGP Project Lead	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. EPC-CP conducts the Comprehensive Site Inspection annually. This is usually done by the MSGP Project Lead, but may be conducted by any trained or qualified person within ENV-CP.

1.4 Activities at the Facility

This section provides a general summary of activities occurring within the facilities covered by this Plan, as required in Part 5.2.2 of 2015 MSGP.

1.4.1 Sigma Complex

The Sigma Complex (Building TA-03-0066), the Beryllium Technology Facility (BTF) (TA-03-0141), the Thorium Storage Building (TA-03-0159), the Warehouse (TA-03-0169) and several other small support structures make up the Complex. The facility is enclosed by a security fence and site access is controlled by a security gate opened only with a LANL badge. The Complex is currently used for materials synthesis as well as for processing, characterizing and fabricating metallic and ceramic items, including depleted uranium (DU) items used in the U.S. Department of Energy (DOE) Stockpile Stewardship and Management Program.

The Sigma Complex is classified as a radiological, moderate-hazard facility. TA-3-66 contains laboratories for metallurgical and ceramics projects, offices and administrative spaces, and storage areas for hazardous chemicals (concentrated acidic and caustic solutions) and mechanical ventilation systems. Machining and metal fabrication facilities are located throughout this building.

The BTF is classified as a non-nuclear, moderate-hazard facility. The BTF is 16,000 square-feet (ft^2) in size. Of this total, approximately 13,000 ft^2 of the building has been converted to house a facility for beryllium operations. The remaining 3,000 ft^2 of the facility is used for general metallurgical operations.

The Thorium Storage Building is classified as a radiological, low-hazard facility. This building is located in the southeastern corner of the Complex. The building is made of concrete and has no electrical or water utilities connected to it. The activities located in this part of the Complex are outside storage of low-level radiological waste storage containers, at the northeast corner of the building.

The Warehouse is classified as a radiological, low-hazard facility. The building is used to store radioactive waste and chemicals for the Complex.

1.4.2 TA-3 Metal Fabrication Shops

The Metal Fabrication Shops within STO FOD at TA-03 are located on the western portion of the Complex, outside the security fence.

1.5 General Location Map

The facilities described within this Plan drain storm water to Upper Mortandad and Sandia Canyons. Both of these canyons are tributaries to the Rio Grande, which is located approximately five miles to the east of the facility discharge points. The general location map for this facility can be seen in Appendix A.

1.6 Site Map

Copies of the site maps for the facilities located within the Complex can be found in Appendix B. The following information is contained in these maps:

the site is approximately 8.7 acres;
the location and extent of significant structures and impervious surfaces;
directions of storm water flow;
locations of existing structural control measures;
locations of all receiving waters in the immediate vicinity of the Sigma Complex;
locations of all storm water conveyances including ditches, pipes, and swales;
locations of potential pollutant sources identified under MSGP, Part 5.2.3.2;
no significant spills or leaks have occurred that meet the definition identified in Part 5.2.3.3;
locations of the two l storm water monitoring points;
locations of storm water inlets and outfalls, and an approximate outline of the areas draining to each outfall;
locations and descriptions of all non-storm water discharges identified under MSGP, Part 2.1.2.9;
locations of the following activities where such activities are exposed to precipitation:
loading/unloading areas;
locations used for the treatment, storage, or disposal of wastes;
processing and storage areas;
immediate access roads used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility;
transfer areas for substances in bulk;
machinery; and
locations and sources of run-on to the site from adjacent property that contains significant quantities of pollutants. There are no run-on sources with significant quantities of pollutants so this is not applicable.

SECTION 2: POTENTIAL POLLUTANT SOURCES

This section of the Plan contains descriptions of areas within the complex where industrial materials or activities are exposed to storm water and from which allowable non-storm water discharges are released. The elements required by MSGP Part 5 are detailed within this section.

2.1 Industrial Activity and Associated Pollutants

In order to meet the required elements of MSGP Parts 5.2.3.1 and 5.2.3.2, the following table contains a list of industrial activities exposed to storm water (e.g., material storage; equipment/vehicle fueling, maintenance, cutting steel beams) and the pollutants or pollutant constituents (e.g., motor oil, fuel, battery acid, and cleaning solvents) associated with these activities. In addition, to these items, the list includes all significant materials that have been handled, treated, stored, or disposed, and that have been or could be exposed to storm water. The use of cover bins, inlets, and good housekeeping are used as best management practices to minimize pollutants in storm water.

The information contained in the following table is divided into three major categories: (1) Activities associated with primary metal facilities operations; (2) Fabricated metal products industry operations; and (3) Significant quantities of materials stored in support of primary and fabricated metal operations.

Industrial Activity	Associated Pollutants	Locations of Activity	Outfall
Primary Metal Facilities Operations			
Ceramic firings[1, 2]	Sulfur and nitrogen oxides	TA-03-0066 (Sigma Building) TA-03-0141 (Beryllium Tech. Fac.)	All outfalls (013-020) affected.
Ceramic sample preparation[1, 2]	Aluminum	TA-03-0066 (Sigma Building) TA-03-0141 (Beryllium Tech. Fac.)	All outfalls (013-020) affected.
Dry & wet ceramic processing[1, 2]	Aluminum	TA-03-0066 (Sigma Building) TA-03-0141 (Beryllium Tech. Fac.)	All outfalls (013-020) affected.
Machining of uranium & graphite[2]	Depleted Uranium Graphite	TA-03-0066 (Sigma Building)	All outfalls (013-020) affected.
Outdoor storage of graphite	Graphite	North end of TA-03-0066 (Sigma Building)	All outfalls (013-020) affected.
Machining of	Beryllium	TA-03-0141 (Beryllium	All outfalls (013-

Industrial Activity	Associated Pollutants	Locations of Activity	Outfall
beryllium[2]		Tech. Fac.)	020) affected.
Fabricated Metal Products Industry Operations			
Electroplating[2]	Copper	TA-03-0066 (Sigma Building)	All outfalls (013-020) affected.
Fabrication of beryllium powder metallurgy components[2]	Beryllium	TA-03-0141 (Beryllium Tech. Fac.)	All outfalls (013-020) affected.
Foundry operations[2]	Aluminum Cast Iron Steel Magnesium Copper Tin Zinc	TA-03-0066 (Sigma Building) TA-03-0141 (Beryllium Tech. Fac.)	All outfalls (013-020) affected.
Machining of Beryllium[2]	Beryllium	TA-03-0141 (Beryllium Tech. Fac.)	All outfalls (013-020) affected.
Machining of depleted uranium & graphite[2]	Depleted Uranium Graphite	TA-03-0066 (Sigma Building)	All outfalls (013-020) affected.
Materials characterization & inorganic chemical synthesis[2]	Depleted Uranium Other radiogenic isotopes, as required by experiments Tin Chromium Nitric Acid Hydrochloric Acid Sulfuric Acid	TA-03-0066 (Sigma Building) TA-03-0141 (Beryllium Tech. Fac.)	All outfalls (013-020) affected.
Mechanical metallurgy[2]	Tin Chromium Experimental Composites Aluminum Steel	TA-03-0066 (Sigma Building) TA-03-0141 (Beryllium Tech. Fac.)	All outfalls (013-020) affected.
Mechanical testing[2]	Experimental Composites Aluminum Beryllium Steel	TA-03-0066 (Sigma Building) TA-03-0141 (Beryllium Tech. Fac.)	All outfalls (013-020) affected.
Microscopy & metallurgy[2]	Experimental Composites Aluminum Beryllium Steel Ceramic Materials	TA-03-0066 (Sigma Building) TA-03-0141 (Beryllium Tech. Fac.)	All outfalls (013-020) affected.

Industrial Activity	Associated Pollutants	Locations of Activity	Outfall
Microwave processing[2]	Experimental Composites Silicon Carbide Aluminum Oxide Ceramic Materials	TA-03-0066 (Sigma Building)	All outfalls (013-020) affected.
Powder metallurgy[2]	Erbium Oxide Ceramic Materials Experimental Composites Beryllium	TA-03-0066 (Sigma Building) TA-03-0141 (Beryllium Tech. Fac.)	All outfalls (013-020) affected.
Powder research & development[2]	Erbium Oxide Ceramic Materials Experimental Composites Beryllium	TA-03-0066 (Sigma Building) TA-03-0141 (Beryllium Tech. Fac.)	All outfalls (013-020) affected.
Sintering operations[2]	Ceramic Materials Experimental Composites Beryllium Graphite	TA-03-0066 (Sigma Building) TA-03-0141 (Beryllium Tech. Fac.)	All outfalls (013-020) affected.
Machining/milling[2]	Iron Tin Steel Aluminum Chromium Zinc Experimental Alloys	TA-03-0066 (Sigma Building) TA-03-0141 (Beryllium Tech. Fac.)	All outfalls (013-020) affected.
Lathe operations[2]	Iron Tin Steel Aluminum Experimental Alloys	TA-03-0066 (Sigma Building) TA-03-0141 (Beryllium Tech. Fac.)	All outfalls (013-020) affected.
Grinding[2]	Iron Tin Steel Aluminum Chromium Zinc Experimental Alloys	TA-03-0066 (Sigma Building) TA-03-0141 (Beryllium Tech. Fac.)[3]	All outfalls (013-020) affected.
Cutting[2]	Iron Tin Steel Aluminum Experimental Alloys	TA-03-0066 (Sigma Building) TA-03-0141 (Beryllium Tech. Fac.)	All outfalls (013-020) affected.

Industrial Activity	Associated Pollutants	Locations of Activity	Outfall
Soldering[2]	Iron Tin Steel Aluminum Experimental Alloys	TA-03-0066 (Sigma Building)	All outfalls (013-020) affected.
Brazing[2]	Iron Tin Steel Aluminum Experimental Alloys	TA-03-0066 (Sigma Building) TA-03-0141 (Beryllium Tech. Fac.)	All outfalls (013-020) affected.
Sanding[2]	Iron Tin Steel Aluminum Chromium Zinc Experimental Alloys	TA-03-0066 (Sigma Building) TA-03-0141 (Beryllium Tech. Fac.)[4]	All outfalls (013-020) affected.
Welding[2]	Iron Tin Steel Aluminum Experimental Alloys	TA-03-0066 (Sigma Building) TA-03-0141 (Beryllium Tech. Fac.)	All outfalls (013-020) affected.
Cleaning (Dry or wet)[2]	Iron Tin Steel Aluminum Rinse Water[2,6,7] Chromium Zinc Experimental Alloys	TA-03-0066 (Sigma Building) TA-03-0141 (Beryllium Tech. Fac.)	All outfalls (013-020) affected.

Significant Stored Materials		
Material	**Location**	**Outfall**
Solid graphite & other non-corrosive metals	TA-03-0066 (Sigma Building)	013, 014, 016, 017, 018, 019
Graphite Dust	TA-03-0066 (Sigma Building)	013, 014, 016, 017, 018, 019
Diesel Fuel[5]	TA-03-0066 (Sigma Building)	013, 014, 016, 017, 018, 019
Carbon Material	TA-03-0066 (Sigma Building)	013, 014, 016, 017, 018, 019
Non-corrosive or Steel Feedstock	TA-03-0066 (Sigma Building)	013, 014, 016, 017, 018, 019
Miscellaneous Equipment	Throughout Complex	013-020

Industrial Activity	Associated Pollutants	Locations of Activity	Outfall
Low-level Radioactive Waste		TA-03-0066 (Sigma Building)	013, 014, 016, 017, 018, 019
Solid Beryllium		TA-03-0141 (Beryllium Tech. Fac.)	015, 020
Oil Storage Area		East of TA-03-0066	013, 014, 016, 017, 018, 019
Beryllium waste		North and east of TA-03-0066	013, 014, 016, 017, 018, 019
Metal for recycle		North and east of TA-03-0066	013, 014, 016, 017, 018, 019
Wood for recycle		East of TA-03-0066	013, 014, 016, 017, 018, 019

Notes:

1) Ceramic materials fabricated at the Complex are often experimental and one-of-a-kind materials. A separate NEPA review is conducted for these operations to determine environmental impacts.
2) Activity takes place indoors. No exposure to storm water.
3) Activity involves grinding with hand-tools only.
4) Activity involves polishing of fabricated parts via light sanding.
5) Current fuel and oil inventories have not exceeded 1,320 gallons of aggregate storage, which would trigger the need to write and implement a Spill Prevention, Control, and Countermeasure Plan in accordance with 40CFR112. If in the course of routine, quarterly, and annual site inspections, the inspector determines that this limit has been exceeded, the Complex will have the opportunity to manage its inventory to a level below this volume or will be required to write and implement an SPCC Plan. These drains are routed to the Radioactive Liquid Waste Treatment Facility via the Radioactive Liquid Waste Line.
6) Whenever possible, environmentally friendly cleaners and solvents are used.

2.2 Spills and Leaks

MSGP Part 5.2.3.3 requires that this Plan contain a description of where potential spills and leaks could occur at the Complex that could contribute pollutants to your storm water discharge, and specify which outfalls are likely to be affected by such spills and leaks.

The following table lists a description of locations at the Complex where potential spills and leaks could occur. The information was developed by walking through the complex and evaluating storage areas and utility lines. There is still the potential for spills and leaks to occur at other locations in the Complex; however, these areas were evaluated as having the greatest potential for spills and leaks to occur in their vicinity. Spills that do occur are to be cleaned up immediately.

Areas of Site Where Potential Spills/Leaks Could Occur	
Location	**Outfalls**
Utility lines (water, sanitary sewage, unauthorized cooling tower discharge, steam condensate) located throughout the facility.	All

Oil storage area located to the south of TA-03-0169	Southeast outfall discharging to Mortandad Canyon (015)
Diesel storage on Loading Dock #1at TA-03-0066 Used Oil Storage Area at Dock #2 at TA-03-0066	North outfalls discharging to Sandia Canyon (018 and 019)
Waste oil storage area located to the north of the loading dock located to the east of TA-03-1698	Northeast outfall discharging to a swale, detention pond, then to Sandia Canyon

MSGP Part 5.2.3.3 requires that this Plan list a description of significant spills and leaks in the past 3 years of oil or toxic or hazardous pollutants that actually occurred at exposed areas, or that drained to a storm water conveyance. Please note that ☐significant spi
are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under Clean Water Act (CWA) Section 311 (see 40 CFR 110.6 and 40 CFR 117.21) or Section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 USC §9602.

The following table lists a description of past spills and leaks that have occurred at the Complex. The information was obtained via a database maintained by LANL's EPC-CP Group. Some of the information does not contain a great deal of detail; however, in the interest of meeting the reporting requirements outlined in Part 5.2.3.3 of the 2015 MSGP, the information is presented below. Appendix C contains a Spill Occurrence Log that will be used to document any future spills within the Complex. All unauthorized non-storm water discharges (those not identified in Part 1.1.3.1 of the MSGP) and spills are also to be included as a corrective action in the EPC-CP Corrective Action Reporting (CAR) database.

	Description of Past Spills/Leaks		
Date	**Description**	**Outfalls**	**Corrective Actions Taken**
05-13-2005	A tube failed on a chilled water unit inside TA-03-0141. Approximately 200 gallons of treated chilled water flowed out of the equipment room and onto the asphalt surface outside the building. The chiller was secured and the tubing was replaced. The room and area outside the building was roped off until radiological swipes could be taken. The swipes were negative for any radiological constituents.	None	Chiller unit was shut down to stop the release. The discharged water evaporated.
03-11-2008	A buried steam condensate line began leaking, which led to	Southeast outfall discharging to	Repairs were completed on the

	approximately 200 gallons of steam condensate being released to the surface. The steam condensate flowed onto an asphalt surface and into a storm water drainage system before entering Upper Mortandad watercourse. The water flowed over Solid Waste Management Units (SWMUs) 03-0405(h) and 03-049(a) before entering the watercourse. No erosive impacts to the SWMUs or the watercourse were noted.	Mortandad Canyon	steam condensate line to stop the discharge.
10-27-2009	***Small amount of diesel spilled from a Gov't vehicle while at the guard gate.***	***None***	
3-26-2010	***A small amount of oil spilled onto the ground while moving a metal recycle bin. Oil was tested and was non-PCB.***	***None***	***Absorbent was applied to the impacted area to remediate the release.***
8-4-2010	***Cooling Tower overflow of approx...30 gals.***	***None***	***Flow to the cooling tower was turned off to stop the overflow/release.***
4-17-2014	***Cooling Tower make up water basin had a very small leak. Less than a gallon.***	***None***	***Upon discovery of the release a work ticket was created to fix the leak.***
1-7-2015	***During a PM performed by an off-site contractor The STO F.R. observed the contractor rinsing a set of cooling coils. The water,***	***Southeast outfall discharging to Mortandad Canyon***	***Work was paused upon discovery of the release. The***

	chemical mix entered a storm drain. Release was on asphalt, no erosion and it did not flow over a PRS.		***residual discharge material was removed.***

2.3 Non-Storm Water Discharges Documentation

Date of evaluation: 8-25-2015
Description of the evaluation criteria used: Visual inspection and walkdown which involved visually sighting and evaluating potential sources of non-storm water discharges.
List of the outfalls or onsite drainage points that were directly observed during the evaluation: All site drainage points were observed (outfalls 013-020).
Different types of non-storm water discharge(s) and source locations: There were no non-storm water discharges observed during the inspection.
Action(s) taken, such as a list of control measures used to eliminate unauthorized discharge(s), if any were identified. For example, a floor drain was sealed, a sink drain was re-routed to sanitary, or an NPDES permit application was submitted for an unauthorized cooling water discharge: None.

2.4 Sampling Data Summary

All analytical sampling events at MSGP monitored outfalls at LANL are managed by EPC-CP and tracked by Operations Integration Office (OIO). OIO maintains the Storm Water Tracking System (SWTS) and the Environmental Information Management (EIM) application, which is a web based software-as-a-service application. The current year MSGP sampling and analysis plan is entered into EIM. It then generates the chain of custody forms and retains validated data once returned from an off-site laboratory. SWTS is used to generate the MSGP Discharge Monitoring Reports by pulling the analytical data from EIM to populate the MDMRs. EPC-CP provided EIM download of data on 8/27/2015. No exceedances occurred at Sigma while monitoring occurred under the old 2008 MSGP. The monitoring data for Sigma (labeled TA-03-0141 and Sandia Tributary below Sigma) can be seen in Appendix K. .

SECTION 3: STORM WATER CONTROL MEASURES

3.1 Minimize Exposure

To minimize exposure of industrial activities in precipitation events the Complex utilizes covers for scrap, waste, recycle-able containers and roll-off bins and are typically stored throughout the Complex. Along with this all dumpster lids are kept closed when not in use. However, it is not possible to store all the materials, related to Complex industrial activities that have the potential to be released with storm water discharges undercover. The table shown below lists materials located at the Complex that have the potential to be released with storm water discharges, and

the method(s) used to minimize the exposure of these materials to storm water. In the event of a spill or leak (section 3.4) dry methods are used to clean up these promptly.

Location	Activity	Control Measure
TA-03-0141 & 03-0066	Storage of low-level radioactive waste	Material is stored in sealed containers and locked low-level waste burial boxes and transportainers.
TA-03-0066	Loading and unloading materials	Activity is conducted in covered loading dock attached to certain docks surrounding the building.
TA-03-0141	Storage of beryllium waste	Material is stored inside Building TA-03-0317 and transportainers, which are closed and locked.

3.2 Good Housekeeping

Operations personnel at the Complex perform weekly inspections/rounds at the facility which are focused toward keeping the site clean, spills prevention and detection, and identification of potential compliance issues. Maintenance of the containment structures and storm water conveyances is essential to good housekeeping. Storm water controls are cleaned as necessary to prevent clogging and promote proper operation. Containers susceptible to spillage or leakage are plainly labeled to encourage proper handling and facilitate rapid response if spills or leaks occur. If a spill is witnessed, call the Emergency Response Group (SEO-1) Office at 667-6211. If fire or an explosion is occurring, or if the potential for such exists, the situation must be reported by dialing 911 from a non-cellular phone or by activating a fire pull box. In the event of a spill, SEO-1 will determine appropriate cleanup procedures and will notify the individuals or organizations responsible for completing regulatory reporting requirements. The DEP or other FOD personnel will have to complete a spill report and submit it the EPC-CP. The spill report will be handled according to EPC-CP-007, *Spill Investigations* (see Appendix J), and may require external agency notification, depending on the nature of the spilled material and the location of the release. All incidents shall be reported and evaluated in accordance with P322-3, *Performance Improvement from Abnormal Events* (see Appendix J).

3.3 Maintenance

The PF-DO Representative and or the STO Operations manager must regularly inspect, test, and repair all industrial equipment and systems to avoid situations that may result in leaks, spills, and other releases of pollutants in stormwater that is discharged to receiving waters. The facility must maintain all control measures that are used to achieve the effluent limits required by this permit in effective operating condition. Nonstructural control measures must also be diligently maintained (e.g., spill response supplies available, personnel appropriately trained). If the facility

finds that their controls need to be replaced or repaired, they must make the necessary repairs or modifications as expeditiously as practicable. Documentation of Maintenance and Repairs of Control Measures (BMPs) is entered in to the EPC-CP MSGP Corrective Action Reporting (CAR) database.

The following items are checked daily and again 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 in the EPC-CP Corrective Action Reporting database and an expected completion date is identified.

At the Complex, preventive maintenance is performed on all vehicles on a six-month schedule outside the Complex, subject to GSA Fleet requirements. Facilities personnel perform weekly facility rounds at the Complex. These rounds would identify any facility maintenance issues associated with the structural BMPs on site. Also, the inspections of the facility by the SWPP Team identifies corrective measures necessary for maintaining the structural storm water controls in proper operating condition and maintaining working stormwater drains. Baghouses are inspected and maintained at least quarterly to prevent escape of dust from the system and immediately removing any accumulated dust at the base of the exterior baghouse. With respect to machining operations at the Complex, all operations are controlled through general housekeeping and routine custodial maintenance.

3.4 Spill Prevention and Response

At present, the Complex does not require a Spill Prevention, Control and Countermeasure (SPCC) Plan as outlined in 40CFR112. The Complex manages its bulk oil storage to an aggregate level less than 1,320 gallons. If the inventory within the Complex rises above this level, the inventory will be required to be decreased or an SPCC Plan will be written for the Complex. Spill kits are located throughout the Complex, as detailed in the Facility Emergency Plan (see Appendix J).

The application of good housekeeping procedures (listed in STO Spill Response Procedure document PRO-0493-STO-HAZMAT and STO Generator Waste Operations document STO-OP-043 section 6.18) (see Appendix J) and the regular weekly visual inspections minimize the probability of a spill or release. Also, LANL's institutional procedures P409 Waste Management and P101-14 Chemical Management (see Appendix J) require labeling of wastes, used oils, and chemicals stored on-site to facilitate the proper handling and response if spills or leaks occur. P409 also identifies inspection requirements or waste containers.

Operational controls are implemented to minimize the possibility of any accidents resulting in spills or releases off site. In general, the approach to spill clean-up of a known substance is to first contain the spill by securing the spill source and deploying spill containment materials. If secondary containment is being provided (e.g. secondary containment pallets for liquids) it will contain the spill. Small spills are responded to by the operator involved in the spill or by the operator located in the vicinity. For incidental releases, absorbents are used to pick-up free liquids and the contaminated absorbents are properly disposed. Standard procedures for spill containment and clean up include the use of spill control kits, sorbent pillows, socks, sheets, and granules. Clean-up residues are managed as appropriate, and as determined by the facility waste management coordinator and EPC-CP personnel depending on the material spilled. Larger spills require that EPC-CP personnel be contacted to respond to the spill, securing the spill area and contacting LANL's SEO-1 Office at 667-6211.

The LANL SEO-1 Office has been appointed by the Laboratory Director as the organization responsible for emergency management at the Laboratory. The LANL SEO-1 Office will be notified if a spill cannot be easily controlled with the materials on hand, threatens to escape the facility or enter the environment, additional resources are needed, an unidentified hazard exists, injuries have occurred, fire protection is needed, or if operational or facility personnel are not adequately trained in the use of spill control equipment or are not confident in their ability to carry out spill response activities. They can be reached at 667-6211. If a fire or explosion is present, or if the potential for such exists, the situation must be reported by dialing 911 from a non-cellular phone or by activating a fire pull box. 911 should also be dialed in the event of an employee injury. In the event of a spill, the SEO-1 Office will notify the individuals or organizations responsible for the completion of spill reports or the fulfillment of regulatory reporting requirements. Spills will be managed in accordance with EPC-CP-007, *Spill Investigations* (see Appendix J).

The completion of a spill report is required in the event of a spill. The determination of whether a spill is reportable will be made by the SEO-1 Office or EPC-CP in accordance with Laboratory and U.S. Department of Energy (DOE) policies, and federal and state regulatory reporting requirements and ENV-DO-QP-101.2, *Environmental Reporting Requirements for Releases or Events* (see Appendix J). In addition to fulfilling reporting requirements, spill reports assist user Groups and Laboratory management in assessing the cause of a spill and in executing corrective action.

Two types of spill reporting are required at the Laboratory: internal spill record keeping and external agency notification. Copies of internal spill reports will be kept by the SWPPP Team member, EPC-CP and the responsible organization. External agency notification (as determined by EPC-CP personnel) may consist of verbal or written notification to the National Response Center, EPA Region VI, or the New Mexico Environment Department. All incidents shall be reported and evaluated in accordance with P322-3, *Performance Improvement from Abnormal Events* (see Appendix J).

The Complex utilizes the controls listed in the table below to aid in spill prevention and response.

Location	Activity	Control Measure
TA-03-0066	Storage of diesel drums	Drums are stored in secondary containment at Dock #1 of the building.
	Used Oil Storage Area	Drums are stored in secondary containment at Dock #2
TA-03-0034 & 03-1698	Storage of drums of machinery lubricant	Drums are stored within a standardized secondary containment unit at both buildings.
TA-03-0034	Spill response	Absorbent material is located outside the metal shop door in a covered metal box.

3.5 Erosion and Sediment Controls

The areas surrounding operations at the Complex, including material and waste storage areas, are covered with asphalt. Along the southern fence border, to the southeast of Building TA-03-0141 (BTF), there is a large area covered with base course and riprap to slow the storm water, as it flows off of the asphalt. Water diversion channels have been constructed around the Complex buildings to direct storm water runoff away from any area that may contain pollutants. The areas surrounding the Complex buildings are paved with asphalt, thereby minimizing the potential for erosion from sites within the Complex. Holding ponds to the north end of the Complex help with velocity dissipation and sediment control. There are occasions that activities around the Complex grounds do cause soil to be exposed (i.e. repair of utility lines); however, once these activities cease, the exposed soil is covered with asphalt or compacted base course.

3.6 Management of Runoff

Most of the storm water drainage from the buildings at the Complex is directed underground to off-site drainage areas. These areas are covered with native vegetation and grass and do not pose any potential threat to the environment. Drainage that comes off the south end of the facility and drainage that occurs east of TA-3-141 where the sampler is does not go below ground. A berm around a portion of the Sigma Complex is used to prevent runoff of contaminated flows in this area. Holding ponds to the north end of the Complex help with velocity dissipation and sediment control.

3.7 Salt Storage Piles or Piles Containing Salt

There are no areas within the Complex that either cover or enclose salt storage piles or piles containing salt. The roads and parking lots surrounding the Complex are treated with salt during snow events in the winter. However, the salting operations are conducted by Logistics Division,

Heavy Equipment Roads and Grounds, and the salt for these activities is stored at the LANL Roads & Grounds Facility at TA-60. The LANL Roads & Grounds Facility has a separate SWPPP to comply with 2015 MSGP. Please refer to that document for the controls used by that facility. Also, please note that there are small containers (5 – 10 gallon) containers of de-icing salt staged throughout the Complex grounds during the winter months; these smaller amounts of salt are used for spot de-icing on sidewalks and do not require storm water controls as defined in Part 2.1.2.7 of 2015 MSGP.

3.8 MSGP Sector-Specific Non-Numeric Effluent Limits

According to Part 2.1.2. of the 2015 MSGP, this Plan must describe controls and procedures to be used at the regulated facility to comply with sector-specific requirements that apply in Part 8 of the MSGP. Since the Complex involves operations and activities that fall under both Sector F – Primary Metals and Sector AA – Metal Fabrication, both sectors will be addressed in this section of the Plan.

3.8.1 Sector F Additional Technology-Based Effluent Limits

3.8.1.1 All Areas - Good Housekeeping Measures

The Complex's Good Housekeeping Program involves the periodic cleaning of all impervious areas of the facility where particulate matter, dust or debris may accumulate. Of particular importance to this program are the loading, unloading, storage, handling and processing areas throughout the Complex, which include the eight covered loading docks at TA-03-0066 (Sigma Building), the Graphite Dust Waste Storage Area to the north of TA-03-0066, the Beryllium Waste Storage Areas to the north of TA-03-0141 (BTF), the Oil Storage Area to the west of TA-03-0141, and the waste storage areas near TA-03-0066 and 0141. In addition to the periodic sweeping of the impervious surfaces near these areas, these areas are inspected on a weekly basis by the STO-FOD Operations Manager. Periodic inspections of waste management areas are conducted by the Waste Management Coordinator assigned to the Complex. The loading docks are high-visibility areas and are, by convention, cleaned up after each loading and unloading operation. The most troublesome area, with respect to the Good Housekeeping Program, is the Graphite Dust Waste Storage Area to the north of TA-03-0066; the waste containers in this area are covered at all times, and the area is swept as often as possible. . For additional information relative to spill prevention and response procedures refer to section 3.4 of this SWPPP.

3.8.2 Sector AA Additional Technology-Based Effluent Limits

3.8.2.1 Raw Steel Handling and Storage Areas

All scrap metals, fines, and iron dust is captured and contained in covered metal bins and sent to LANL's Material Recycling Facility to be stored and shipped out for recycling. All deliveries of raw materials go directly in the building therefore they are not stored outside and do not come in contact with storm water.

3.8.2.2 Paints and Painting Equipment

Painting activities and the storage of paints and painting equipment does not take place outdoors at the Complex. If fabricated machinery requires a coat of paint, it is typically taken to TA-35-0124 for indoor spray painting under a fume hood. TA-35-0124 is one of three machine shops located at TA-35 that conducts all operations indoors.

3.8.2.3 Metal Fabrication Areas

All metal fabrication activities take place indoors in clean, dry and orderly areas. DOE safety and industrial hygiene requirements help minimize the potential for pollutants to be exposed to storm water runoff.

3.8.2.4 Lubricating Oil and Hydraulic Fluid Operations

The potential for storm water contamination resulting from lubricating and hydraulic fluid operations at the Complex is minimized by storing all bulk material in secondary containment units at the locations shown in the site map contained in Appendix B. The graphite collection system and graphite storage area are located on the north side of TA-03-0066. Dust generation and minimization can be seen in Section 3.12 of this SWPPP.

3.9 Employee Training

Employee training is essential for effective implementation and maintenance of this SWPPP. All employees who work in areas where industrial material or activities are exposed to storm water, or who are responsible for implementing activities necessary to meet the conditions of the MSGP, including 1) Personnel who are responsible for the design, installation, maintenance and/or repair of controls (including pollution prevention measures); (2) Personnel responsible for the storage and handling of chemicals and materials that could become contaminants in storm water discharges; (3) Personnel who are responsible for conducting and documenting monitoring and inspections; and (4) Personnel who are responsible for taking and documenting corrective actions. Training will cover (1)An overview of what is in the SWPPP; (2) Spill response procedures, good housekeeping, maintenance requirements, and material management practices; (3) The location of all controls on the site required by this permit and how they are to be maintained; (4) The proper procedures to follow with respect to the permit's pollution prevention requirements; and (5) When and how to conduct inspections, record applicable findings, and take corrective actions. Personnel are required to be trained to EPC-CP-007, Spill Investigations (Appendix J).

All STO-FOD operational on-site workers, managers, and supervisors at the Complex as well as SWPPP team members will annually receive storm water pollution prevention training. This training is recorded in LANL's UTrain training database. In addition, the management of tenant groups within the Complex will be asked to develop a list of workers, supervisors and management that should take this training, due to their activities in either Primary Metal Operations or Metal Fabrication.

3.10 Non-Storm Water Discharges

There were no unauthorized non-storm water discharges identified during the site evaluation (See Section 2.3). However, please note that the potential for unauthorized cooling tower discharges and discharges from broken utility lines was identified as a potential pollutant source in Section 2.2 – Spills and Leaks.

The following are the non-storm water discharges authorized under this permit:

- Discharges from emergency/unplanned fire-fighting activities;
- Fire hydrant flushings;
- Potable water, including water line flushings;
- Uncontaminated condensate from air conditioners, coolers/chillers, and other compressors and from the outside storage of refrigerated gases or liquids;
- Irrigation drainage;
- Landscape watering provided all pesticides, herbicides, and fertilizers have been applied in accordance with the approved labeling;
- Pavement wash waters where no detergents or hazardous cleaning products are used (e.g., bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols), and the wash waters do not come into contact with oil and grease deposits, sources of pollutants associated with industrial activities, or any other toxic or hazardous materials, unless residues are first cleaned up using dry clean-up methods (e.g., applying absorbent materials and sweeping, using hydrophobic mops/rags) and you have implemented appropriate control measures to minimize discharges of mobilized solids and other pollutants (e.g., filtration, detention; settlement);
- Routine external building washdown/power wash water that does not use detergents or hazardous cleaning products (e.g., those containing bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols);
- Uncontaminated ground water or spring water
- Foundation 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: drains).

3.11 Waste, Garbage and Floatable Debris

STO-FOD operations and facility personnel perform weekly inspections/rounds to identify housekeeping issues (including waste items). Personnel remove all waste items and dispose of them in an appropriate manner. Portions of the Complex also have fences that surround portions of the facility where trash or other wind carried waste items can be caught prior to entering any storm- water conveyance.

3.12 Dust Generation and Vehicle Tracking of Industrial Materials

The Complex stores all scrap, waste and recyclable materials in covered bins or roll-offs. Bulk materials staging and storage is kept indoors, whenever possible. Industrial activities associated with Sectors F and AA are conducted indoors. Outdoor storage areas and associated controls have been summarized in Sections 3.1 and 3.4 of this Plan.

Dust generation is minimized by the controls shown in the following table:

Location	Activity	Control Measure
TA-03-0066	Process Activities	Graphite dust generated by process activities is collected via a permanently installed dust collection system to minimize the release of dust through the building's exhaust stacks.
TA-03-0066 & 0141	Dust/waste Storage	Graphite dust is stored in sealed 55-gallon drums, with the drums stored in secondary containment units.
TA-03-0066	Process Activities	Filters on the dust collection system are replaced every two to five years, depending upon the amount of generated dust to ensure the removal system is working at maximum efficiency.
TA-03-0141	Process Activities	Beryllium waste generated by process activities is collected via a permanently installed waste collection system to minimize the release of waste through the Building's cyclone stacks.
Entire Complex	Vehicle Operation	The Complex grounds are paved with asphalt, which minimizes the generation of dust associated with facility operations.

SECTION 4: SCHEDULES AND PROCEDURES FOR MONITORING

4.1 Stormwater Monitoring

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

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

Samples are retrieved in accordance with *Inspecting Storm Water Runoff Samplers and Retrieving Samples for the MSGP,* EPC-CP-QP-047 (see Appendix J). Stormwater samples are processed in accordance with *Processing MSGP Storm Water Samples,* EPC-CP-QP-048 (see Appendix J). All stormwater monitoring is conducted in accordance with the *Quality Assurance Project Plan for the Storm Water Multi-Sector General Permit for Industrial Activities Program,* EPC-CP-QAPP-MSGP (see Appendix J) and the current year MSGP *Field Implementation Plan*.

4.2 Monitoring Schedule

For this permit term, monitoring will begin in the first full quarter following October 1, 2015,. 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. Because of these conditions, monitoring events are distributed between April 1, and November 30 of each calendar year, during seasons when precipitation occurs, or when snowmelt results in a measurable discharge from the site (also see quarterly monitoring schedule below). 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.

Benchmark monitoring will continue on a quarterly basis at least once in each of the following 2-month intervals:
April 1 – May 31;
June 1 – July 31;

August 1 – September 30; and
October 1 – November 30.

Impaired waters monitoring is performed on an annual basis with a sample collected in the period between April 1 and November 30.

4.3 Substantially identical Outfalls

This facility utilizes substantially identical outfalls for monitoring events. The outfalls have been identified as substantially identical based on common potential pollutant sources, drainage areas, activities within the drainage areas, and general site topography and characteristics. Required information supporting this outfall determination is as follows:

Location of the substantially identical outfalls: See the SWPPP Site Map. These are labeled as outfalls 013-019. Outfall 020 is not considered a substantially identical outfall because it collects water largely from a roof drain.
Description of the general industrial activities conducted in the drainage area of each outfall: See Section 2 of the SWPPP
Description of the control measures implemented in the drainage area of each outfall: See Section 3 of the SWPPP
Description of the exposed materials located in the drainage area of each outfall that are likely to be significant contributors of pollutants to storm water discharges: See Section 2 of the SWPPP
Estimate of the runoff coefficient of the drainage areas (low=under 40%; medium=40 to 65%; high =above 65%): High
Why the outfalls are expected to discharge substantially identical effluents: Similar activities, potential pollutant sources, and site characteristics.
** Monitored outfall 018 was permanently plugged during site control measures installation in December 2016. Former substantially identical outfall 017 was re-assigned as the new monitored outfall effective at the beginning of the 2017 calendar year.

4.4 Summary of Monitoring Requirements

Sector F – PRIMARY METALS						
Monitoring Type	**Location**	**Parameters**		**Numeric Control Values**	**Schedule**	**Procedures**
Benchmark	Mortandad	Total Copper: (dissolved)	Hardness Dependent	0.008mg/L	Quarterly	Automated samplers are installed in accordance with EPC-CP-QP-045, *Installing, Setting up, and*

Sector F – PRIMARY METALS						
Monitoring Type	**Location**	**Parameters**		**Numeric Control Values**	**Schedule**	**Procedures**
		Total Zinc: (dissolved)	Hardness Dependent	0.101mg/L		*Operating ISCO Samplers for the MSGP* (see Appendix J). . Samples are retrieved by ENV-CP personnel in accordance with ENV-CP-QP-047 *Inspecting Storm Water Runoff Samplers and Retrieving Samples for the MSGP* (see Appendix J). Samples are processed for analysis in accordance with ENV-CP-QP-048, *Processing MSGP Storm Water Samples* (see Appendix J). Samples are sent to an off-site laboratory for analysis and data reporting by OIO personnel.
	Sandia	Copper: (dissolved)		0.006mg/L		
		Total Zinc: (dissolved)		0.076mg/L		

Sector F – PRIMARY METALS						
Monitoring Type	**Location**	**Parameters**		**Numeric Control Values**	**Schedule**	**Procedures**
Impaired Waters	Mortandad	Aluminum		1,699µg/L	Annual	Automated samplers are installed in accordance with ENV-CP-QP-045, *Installing, Setting up, and Operating ISCO Samplers for the*
		Adjusted Gross Alpha		15pCi/L		
		Copper		6µg/L		
	Sandia	PCBs		0.00064µg/L		*MSGP* (see Appendix J). Samples are retrieved by ENV-CP personnel in accordance with
		Aluminum		681µg/L		

Sector F – PRIMARY METALS						
Monitoring Type	**Location**	**Parameters**		**Numeric Control Values**	**Schedule**	**Procedures**
		Gross Alpha		15pCi/L		ENV-CP-QP-047 *Inspecting Storm Water Runoff Samplers and Retrieving Samples for the MSGP* (see Appendix J). Samples are processed for analysis in accordance with ENV-CP-QP-048, *Processing MSGP Storm Water Samples* (see Appendix J). Samples are sent to an off-site laboratory for analysis and data reporting by OIO personnel.
		Copper		6µg/L		
		Dissolved Thallium		0.47µg/L		
		PCBs		0.00064µg/L		

Sector AA – FABRICATED METALS						
Monitoring Type	**Location**	**Parameters**		**Numeric Control Values**	**Schedule**	**Procedures**
Benchmark	Mortandad	Total Aluminum		0.75mg/L	Quarterly	Automated samplers are installed in accordance with ENV-CP-QP-045, *Installing, Setting up, and Operating ISCO Samplers for the MSGP* (see Appendix J). Samples are retrieved by ENV-CP personnel in accordance with ENV-CP-QP-047 *Inspecting Storm Water*
		Total Iron		1.0mg/L		
		Total Zinc	Hardness Dependent	0.101mg/L		
		Nitrate plus Nitrite Nitrogen		0.68mg/L		
	Sandia	Total Aluminum		0.75mg/L		
		Total Iron		1.0mg/L		
		Total Zinc	Hardness Dependent	0.076mg/L		
		Nitrate plus Nitrite Nitrogen		0.68mg/L		

Sector AA – FABRICATED METALS					
Monitoring Type	**Location**	**Parameters**	**Numeric Control Values**	**Schedule**	**Procedures**
					Runoff Samplers and Retrieving Samples for the MSGP (see Appendix J). Samples are processed for analysis in accordance with ENV-CP-QP-048, *Processing MSGP Storm Water Samples* (see Appendix J). Samples are sent to an off-site laboratory for analysis and data reporting by OIO personnel.
Impaired Waters	Mortandad	Aluminum	1,699µg/L	Annual	Automated samplers are installed in accordance with ENV-CP-QP-045, *Installing, Setting up, and Operating ISCO Samplers for the MSGP* (see Appendix J). Samples are retrieved by ENV-CP personnel in accordance with ENV-CP-QP-047 *Inspecting Storm Water*
		Adjusted Gross Alpha	15pCi/L		
		Copper	8µg/L		
		Polychlorinated biphenyls (PCBs)	0.00064µg/L		
	Sandia	Aluminum	0.681µg/L		
		Copper	6µg/L		
		Thallium (dissolved)	0.47µg/L		
		Adjusted Gross Alpha	15pCi/L		
		PCBs	0.00064µg/L		

Sector AA – FABRICATED METALS					
Monitoring Type	**Location**	**Parameters**	**Numeric Control Values**	**Schedule**	**Procedures**
					Runoff Samplers and Retrieving Samples for the MSGP (see Appendix J). Samples are processed for analysis in accordance with ENV-CP-QP-048, *Processing MSGP Storm Water Samples* (see Appendix J). Samples are sent to an off-site laboratory for analysis and data reporting by OIO personnel.

4.5 Monitoring Results

If the average of the 4 monitoring values for any parameter exceeds the 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 your control measures to determine if modifications are necessary to meet the 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, monitoring for that particular parameter will no longer be performed.

4.6 Recordkeeping

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

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

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

SECTION 5: INSPECTIONS AND CORRECTIVE ACTIONS

5.1 Routine Facility Inspection Procedures

Routine inspections will be conducted and documented quarterly (Jan-March, April-June, July-September, October-December) by a qualified member of the SWPP Team (typically the Deployed Environmental Professional or EPC-CP Water Quality SME). Inspections will evaluate all monitoring data and quarterly visual assessment results in preparation for the inspection. The procedure used is EPC-CP-QP-022, *MSGP Stormwater Corrective Actions* (see Appendix J).

One routine inspection will be conducted during an active storm water discharge. Routine inspections will evaluate the following, at a minimum:

Inspection date and time;

The name(s) and signature(s) of the inspector(s);

Weather information:

A description of any discharge occurring at the time of inspection;

Any previously unidentified discharges from and/or pollutants at the site;

Any evidence of, or the potential for, pollutants entering the drainage system;

Observations regarding the physical condition and around the outfalls, including any flow dissipation devices, and evidence of pollutants in discharges and/or the receiving water;

Any control measures needing maintenance, repairs, or replacement;

Any additional control measures needed to comply with the permit requirements;

Any incidence or noncompliance; and

A statement signed and certified in accordance with Appendix B, Subsection 11 of the 2015 MSGP.

With respect to Sector F facilities, the 2015 MSGP states that inspections must address all potential sources of pollutants, including air pollution control equipment (e.g., bag houses, electrostatic precipitators, scrubbers, cyclones) must be inspected for signs of degradation(e.g., leaks, corrosion, or improper operation) that could limit their efficiency and lead to excessive emissions. Air flow should be monitored at inlets and outlets to check for leaks or blockage in ducts. Also the 2015 MSGP requires Sector F facility inspections to examine all process and material handling equipment (e.g., cranes, conveyors and vehicles) for leaks, drips, or the potential loss of material; and material storage areas (e.g., piles, bins, or hoppers for storing coke, coal, scrap, or slag, as well as chemicals stored in tanks and drums) for signs of material losses due to wind or storm water runoff.

With respect to Sector AA facilities, the 2015 MSGP states that inspections must, at a minimum, include the following areas in all inspections: raw metal storage areas, finished product storage areas, material and chemical storage areas, spent solvents and chemical storage areas, recycling

areas, loading and unloading areas, equipment storage areas, paint areas, drainage from roof and vehicle fueling and maintenance areas.

Specific areas of the facility to be inspected include:

Note – air pollution control equipment in Buildings TA-03-0066 and 03-0141 will not be inspected during inspections covered by this plan. The stacks and cyclone separators are inspected and maintained on weekly, monthly, and quarterly schedules by qualified technicians and engineers. Rather than inspecting these systems during storm water inspections, the SWPP Plan inspector will review maintenance records, which document both preventive and corrective maintenance actions. Maintenance records for the TA-03-0066 dust collection system; filter replacement records for the dust control system in TA-03-0066; maintenance records for the permanent beryllium waste system in TA-03-0141; and stack emission records for the TA-03-0141 system will be reviewed on a quarterly basis under the SWPP program.
Waste storage areas near and around Buildings TA-03-0066 and 03-0141, including low-level radioactive waste stored in sealed containers and locked low-level waste burial boxes and transportainers will be inspected quarterly. Note that it will not be necessary to open these containers during the inspection process; rather, the containers will be examined for any degradation, and the areas surrounding the containers will be examined for evidence of pollutant transport and good housekeeping.
All loading areas for each of the buildings listed in the Plan will be inspected for good housekeeping practices, as well as for the potential of pollutants to be transported off site via storm water runoff. This includes the eight loading docks surrounding TA-03-0066;
The graphite dust waste storage area north of TA-03-0066 will be examined to ensure that all 55-gallon drums are covered and that the area is being swept and maintained on a regular basis.
The beryllium waste storage areas inside Building TA-03-0317 and around the transportainers, which are closed and locked shall be inspected for good housekeeping and will be examined for evidence of pollutant transport.
The scrap metal storage area near TA-03-0034 located in two cabinets outside the metal shop door will be inspected to ensure that all of the scrap metal generated here is stored inside the cabinets. In addition, the area will be examined for good housekeeping practices.
All equipment storage areas, whether temporary, or permanent shall be inspected for evidence of leaks and spills.
All outfalls from the Complex, including asphalt rundowns, swales, and drop inlets, will be inspected for evidence of the transport of pollutants off-site.

The SWPP Team member performing the inspection will document the inspection and will note potential storm water pollution problems that were encountered on the routine facility inspection form. Any required corrective actions identified during the inspection will be addressed in accordance with Section 5.4 Corrective Actions Process of this plan.

5.2 Quarterly Visual Inspection Procedures

The quarterly visual assessments will be conducted by a qualified member of the SWPP Team (Deployed Environmental Professional or EPC-CP Water Quality SME). The procedure used is ENV-CP-QP-064, *Multi-Sector General Permit Stormwater Visual Inspections* (see Appendix J).

Quarterly visual assessment at substantially identical outfalls will occur on a quarterly basis at least once in each of the following 2-month intervals on a rotating basis for the permit term:
April 1 – May 31;
June 30 – July 31;
August 1 – September 30; and
October 1 – November 30.

Visual assessments must be made:

Of a sample in a clean, colorless glass or plastic container, and examined in a well-lit area;
On samples collected in the first 30 minutes of a discharge from a storm event. If it is not possible to collect the samples within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and you must document why it was not possible to take the sample within the first 30 minutes. In the case of snowmelt, samples must be taken during a period with in a measurable discharge from your site; and
For storm events, on discharges that occur at least 72 hours (three days) from the previous discharge. The 72-hour (three days) storm interval does not apply if you document that less than a 72-hour (three days) interval is representative for local storm events during the sampling period.

Outfalls to be inspected are identified on the site map. Most of the outfalls at the facility are substantially identical outfalls (SIO), therefore quarterly visual assessment of the discharge at one SIO can also apply to the other SIO.

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 storm water pollution.

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

5.3 Corrective Actions Process

Upon discovery of any of the following conditions, the condition must be documented within 24 hours of the discovery on the form provided in Appendix E of this SWPPP:

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 your facility;
A discharge violates a numeric effluent limit listed in Table 2-1 and in your Part 8 sector-specific requirements;
Your control measures are not stringent enough for the discharge to meet applicable water quality standards or the non-numeric effluent limits in this permit;
A required control measure was never installed, was installed incorrectly, or not in accordance with Parts 2 and/or 8, or is not being properly operated or maintained;

Whenever a visual assessment shows evidence of stormwater pollution (e.g., color, odor, floating solids, settled solids, suspended solids, foam).
Within 14 days of discovery of the identified condition, corrective action(s) to eliminate or further investigate the condition or documentation that no corrective action is needed will be documented and entered into the LANL MSGP Corrective Actions Database by the Deployed ENV Professional This is required to track the status of all issues.

If it is determined that corrective actions are necessary, the facility must immediately take all reasonable steps necessary to minimize or prevent the discharge of pollutants until a permanent solution is installed and made operational, including cleaning up any contaminated surfaces so that the material will not discharge in subsequent storm events. Also if any corrective actions are identified the SWPPP must be reviewed and a determination made as to whether to modify it. If any modifications to control measures are needed these will be made before the next storm event if possible, or as soon as practicable following that storm event. If a runoff event should occur while a control measure is off line, EM&R will be contacted. A DEP will evaluate control measures informally to ensure all control measures are maintained.

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 your facility that significantly changes the nature of pollutants discharged in stormwater 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 exceedance of the four quarter average is mathematically certain (i.e., if the sum of quarterly sample results to date is more than four times the benchmark level) this is considered a benchmark exceedance, triggering this review.

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

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

6.1 Documentation Regarding Endangered Species

The Los Alamos National Laboratory (LANL) Threatened and Endangered Species Habitat Management Plan (HMP) (see Appendix J)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) (see Appendix J) and was first implemented in 1999. All changes to the HMP, such as adding new species or changing requirements, are assessed in a new consultation with the USFWS before being implemented. The HMP provides guidance by species for different types of activities allowed without further review by the USFWS.

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

The HMP includes ecorisk analyses which account for any industrial facility’s storm water discharges, allowable non-storm water discharges, and storm water 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, storm water discharges, allowable non-storm water discharges, and storm water 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.

6.1 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. Storm water 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 both the LANL excavation permit process and the LANL project requirements (PR-ID) process. Storm water 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 storm water pollution prevention compliance at the MSGP sites in accordance with Section 4.0 Monitoring of this plan. Corrective actions are taken as necessary as described in Section 5.4 Corrective Actions Process of this plan.

SECTION 7: SWPPP 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.

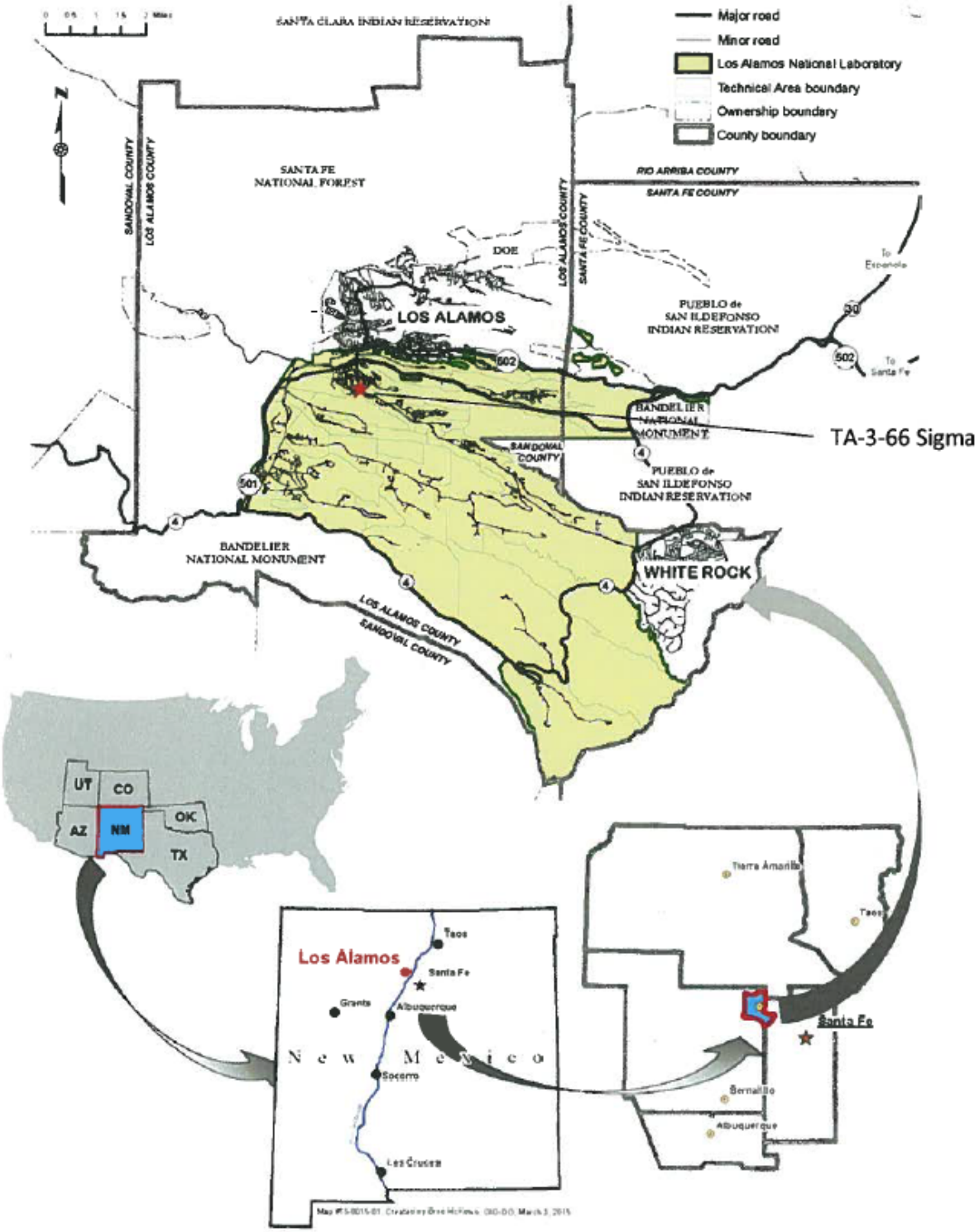
Name: Cliff Kirkland Title: Science & Technology Operations Facility Operations Director

Signature:  Date: 1/23/17

SECTION 8: SWPPP MODIFICATIONS

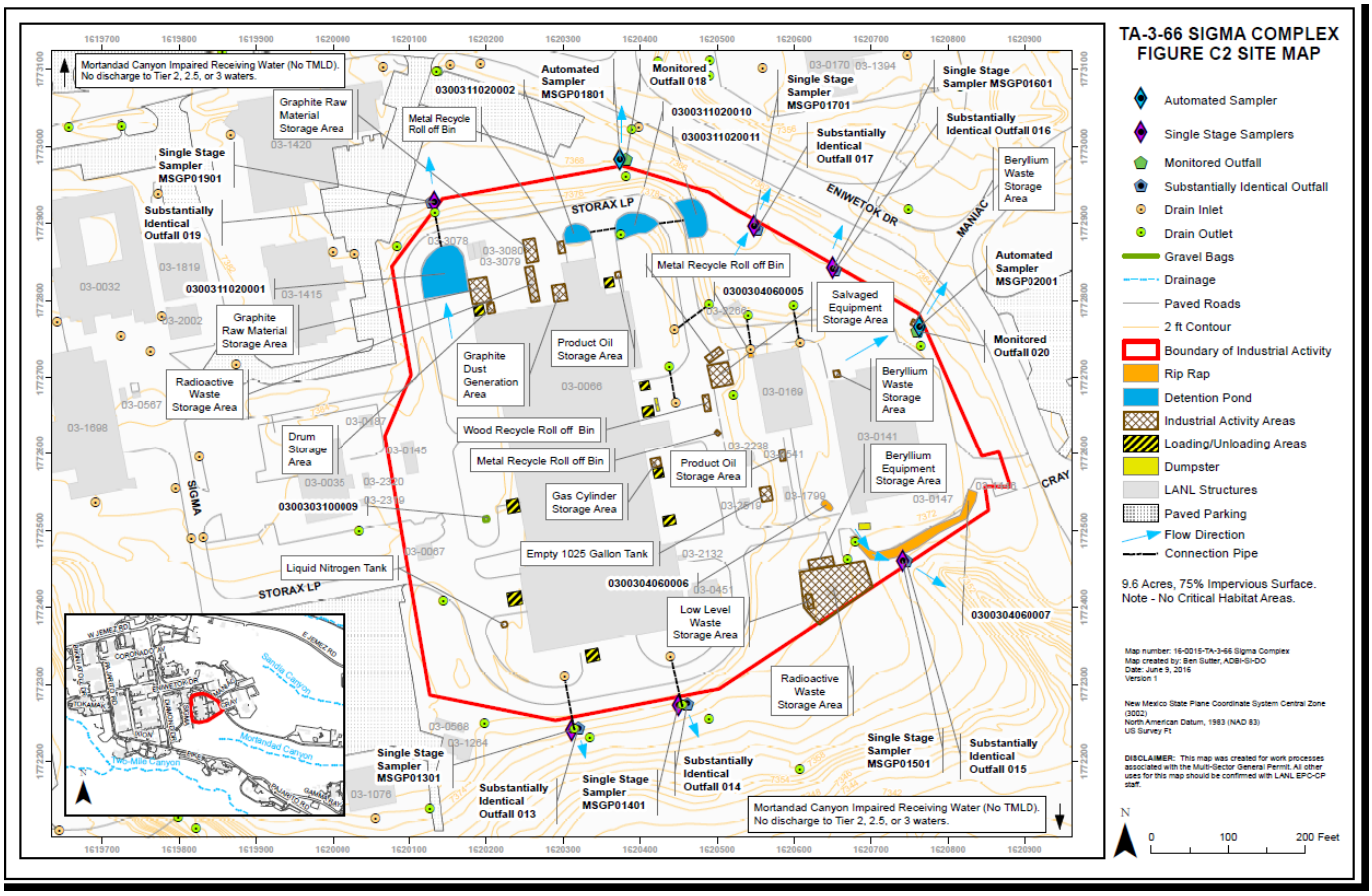
Modification of this SWPPP will occur whenever necessary to address any of the triggering conditions for corrective action in Part 5.4.1 of this plan and to ensure that they do not reoccur, or to reflect changes implemented when a review following the triggering conditions in Part 5.4.2 indicates that changes to control measures are necessary to meet the effluent limits in this permit. Changes to this SWPPP document must be made in accordance with the corrective action deadlines in Parts 5.4.3 and 5.4.4, and must be signed and dated in accordance with MSGP Appendix B, Subsection 11 (A, B, or C). A copy of the MSGP can be found at http://water.epa.gov/polwaste/npdes/stormwater/upload/msgp2015_finalpermit.pdf.

Appendix A – General Location Map

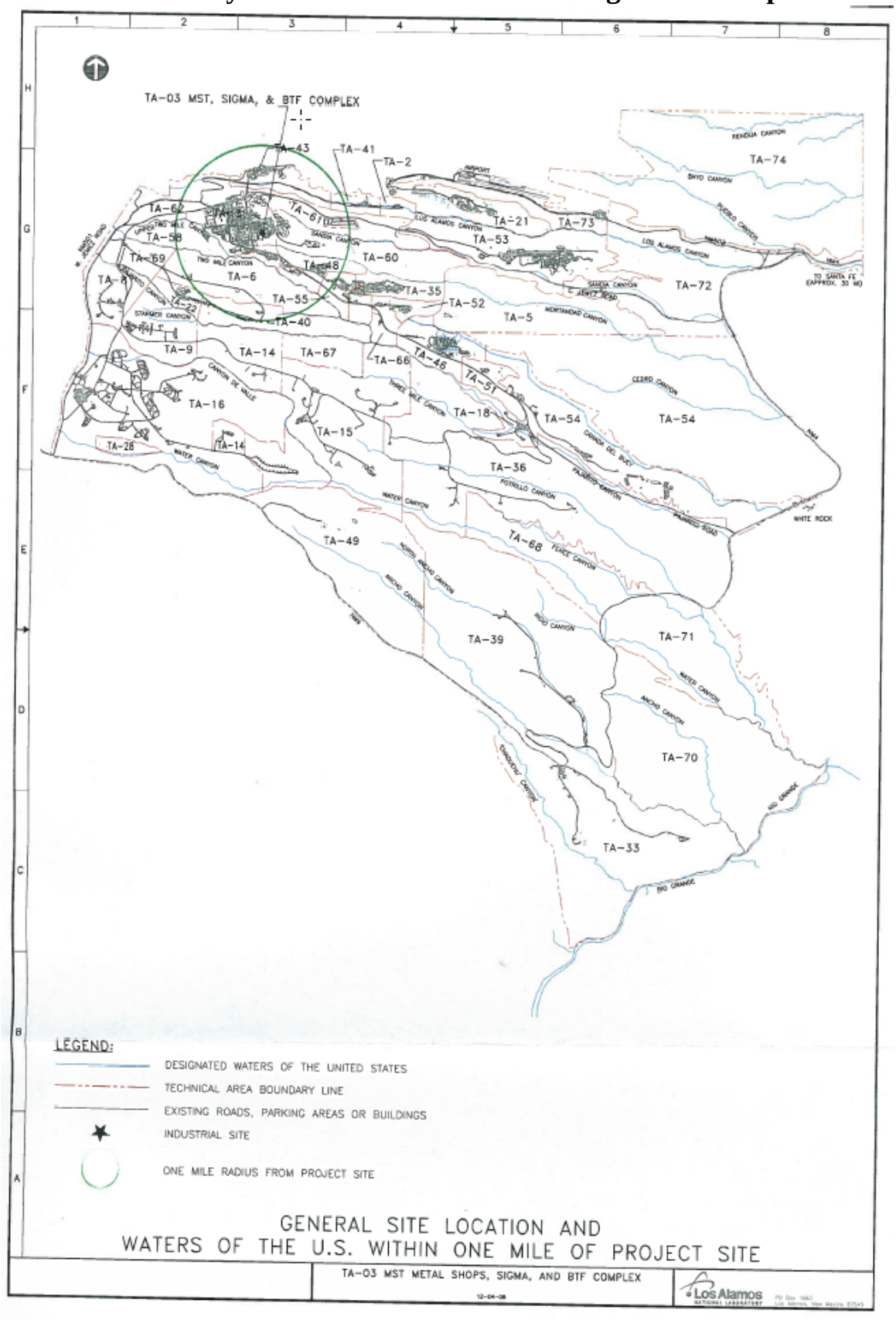


Appendix B – Site Map, Location of Nearby Surface Waters and Receiving Waters Map, Threatened and Endangered Species Map

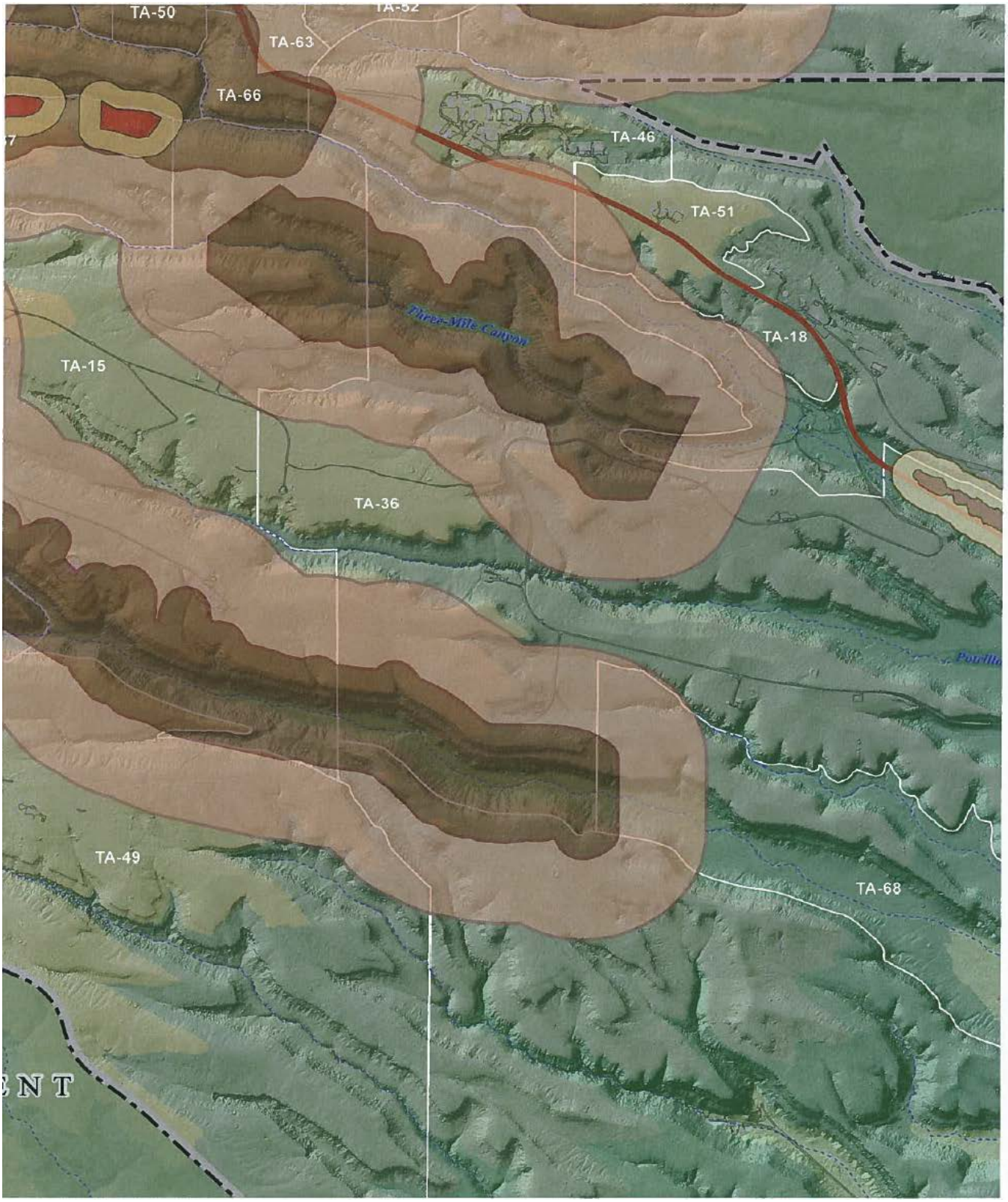
Site Map



Location of Nearby Surface Waters and Receiving Waters Map



Endangered Species Map



Appendix C – Spill Occurrence Log

Spill Log – Record of Spills, Leaks and Other Releases

Spill Log
Table for Tracking Past and Future Spills

Date	Spill Location	What Spilled	Quantity Spilled	Corrective Action Taken	Plans to Prevent Recurrence
9/20/16	Behind 3-66	Steam Cond.	300 gallons	Pipe fixed	N/A

Appendix D – Inspection Records

Facility Inspections

Inspection Forms and Completed Reports:

Quarterly Routine Inspections
Quarterly Visual Assessments
Annual (Comprehensive Site Inspection)

Copy

MSGP Stormwater Industrial Routine Facility Inspection Report

General Information		
Facility Name	TA-3-66 Sigma Complex	
NPDES Tracking No.		
Date of Inspection	7/28/16	**Time:** 10:35 am
Inspector's Name(s)	Marc R. Gallegos	
Inspector's Title(s)	CISEC #410	
Inspector's Qualifications	CISEC #410	

Weather Information

Weather at time of this inspection?
☐ Clear ☐ Cloudy ☐ Rain ☐ Sleet ☐ Fog ☐ Snow ☐ High Winds
☒ Other: Partly Cloudy Temperature: 49°F

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

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

Is there any evidence of, or the potential for, pollutants entering the drainage system? ☒ Yes ☐ No
If yes, describe: Metal shavings on ground next to metal recycle bin North side of TA-3-66

Observations regarding the physical condition of and around all outfalls including any flow dissipation devices, and evidence of pollutants in discharges and/or the receiving water. OK

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	Culvert	☒ Yes ☐ No	☐ Maintenance ☐ Repair ☐ Replacement	
2	Culvert	☒ Yes ☐ No	☐ Maintenance ☐ Repair ☐ Replacement	
3	Culvert	☒ Yes ☐ No	☐ Maintenance ☐ Repair ☐ Replacement	
4	Culvert	☒ Yes ☐ No	☐ Maintenance ☐ Repair ☐ Replacement	

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
5	culvert	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
6	culvert	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
7	Riprap	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
8	Riprap	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
9	Riprap	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
10	Riprap	☒Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

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

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

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
9	**Dust generation and vehicle tracking**	☐Yes ☐No ☒N/A	☐Yes ☐No	
10	**(Other)** Metal recycle bin	☒Yes ☐No ☐N/A	☐Yes ☒No	Metal shavings on ground next to metal recycle bin need to be addressed.
11	**(Other)** Housekeeping	☒Yes ☐No ☐N/A	☐Yes ☒No	Trash along East fence line east of TA-3-141 BTF.
12	**(Other)**	☐Yes ☐No ☐N/A	☐Yes ☐No	

Non-Compliance

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

Additional Control Measures

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

Control Measure	Operating Effectively
11. Storm drain	11. yes
12. Holding Pond/w riser	12. yes
13. Holding Pond/w riser	13. yes

Notes

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

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: Cliff Kirkland STO-FOD

Signature: [signature] **Date:** 3/30/16

Copy

MSGP Stormwater Industrial Routine Facility Inspection Report

General Information	
Facility Name	TA-3-66 Sigma
NPDES Tracking No.	NMR053195
Date of Inspection	6/22/16 **Time:** ~~10:02 am~~ 11:05 am
Inspector's Name(s)	Marc R. Gallegos
Inspector's Title(s)	CISEC #410
Inspector's Qualifications	CISEC #410

Weather Information

Weather at time of this inspection?
☐ Clear ☐ Cloudy ☐ Rain ☐ Sleet ☐ Fog ☐ Snow ☐ High Winds
☒ Other: Partly Cloudy Temperature: 76°F

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

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

Is there any evidence of, or the potential for, pollutants entering the drainage system? ☐Yes ☒No
If yes, describe:

Observations regarding the physical condition of and around all outfalls including any flow dissipation devices, and evidence of pollutants in discharges and/or the receiving water. None

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	Culvert #1 ~~Stormdrain #1~~ 6/22/16	☑Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
2	Culvert #2	☑Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
3	Culvert #3	☑Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
4	Culvert #6	☑Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
5	culvert #11	☑Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
6	culvert #12	☑Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
7	riprap #4	☑Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
8	riprap #7	☑Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
9	riprap #9	☑Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	
10	riprap #5	☑Yes ☐No	☐ Maintenance ☐ Repair ☐ Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

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

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

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
9	**Dust generation and vehicle tracking**	❑Yes ❑No ❑ N/A	❑Yes ❑No	
10	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	
11	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	
12	**(Other)**	❑Yes ❑No ❑ N/A	❑Yes ❑No	

Non-Compliance

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

- Graphite dust on ground on Northside graphite area of TA-3-66. Located under covered drum area.

Additional Control Measures

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

Control Measure	Operating Effectively
11. Storm drain #8	yes
12. Holding Pond/w riser #10	yes
13. Holding Pond/w riser & culvert #13	yes

Notes

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

- Misc. equipment, material will be addressed when TA-3-66 Sigma "clean up" occurs.

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: Cliff Kirkland FOD

Signature: [signature] **Date:** 6/22/16

[signature] 6/22/16

TA-3-66 Program Manager

Los Alamos National Lab

Work Order MSGP-56540

MSGP Monitoring Stations
Printed 7/25/2016 - 10:54 AM

Maintenance Details

Requested By: Banar, Alethea on 7/25/2016 10:53:42 AM

Procedure: MSGP Stormwater ~~Industrial Routine~~ 3rd Qtr. Facilty Inspection (EPC-CP-Form-1020.1)

MP 7/28/16

Last PM: N/A

Reason: TA-3-66 Sigma Complex

Special Instructions: NMR053195

Target: 7/29/2016
Priority/Type: / Routine
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex

Contact: Banar, Alethea
Phone: 665-0454

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.	Partly Cloudy	82°F		☐	☐	☑
	Within the Facility Boundary						
40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "Failed", describe:				☐	☐	☑
50	If "Failed" has a CAR been previously initiated for this new discharge? (Range: 0 - 0)				☐	☑	☐
60	Is the facility free of discharge of pollutants at the time of inspection? If "Failed" describe: (Range: 0 - 0)				☐	☐	☑
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "Failed" describe: (Range: 0 - 0)				☐	☐	☑
	Outfall Inspection needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)						
90	**Monitored Outfall [018]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☑
100	**Monitored Outfall [018]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☑
110	**Monitored Outfall [018]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☑
120	**Monitored Outfall [020]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☑
130	**Monitored Outfall [020]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☑
140	**Monitored Outfall [020]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☑
150	**Substantially Identical Outfall [013]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☑
160					☑	☐	☐

	Substantially Identical Outfall [013] Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)							
170	**Substantially Identical Outfall [013]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)					☐	☐	☑
180	**Substantially Identical Outfall [014]** Free of Evidence of Erosion? (Range: 0 - 0)					☐	☐	☑
190	**Substantially Identical Outfall [014]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)					☐	☐	☑
200	**Substantially Identical Outfall [014]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)					☐	☐	☑
210	**Substantially Identical Outfall [015]** Free of Evidence of Erosion? (Range: 0 - 0)					☐	☐	☑
220	**Substantially Identical Outfall [015]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)					☐	☐	☑
230	**Substantially Identical Outfall [015]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)					☐	☐	☑
240	**Substantially Identical Outfall [016]** Free of Evidence of Erosion? (Range: 0 - 0)					☐	☐	☑
250	**Substantially Identical Outfall [016]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)					☐	☐	☑
260	**Substantially Identical Outfall [016]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)					☐	☐	☑
270	**Substantially Identical Outfall [017]** Free of Evidence of Erosion? (Range: 0 - 0)					☐	☐	☑
280	**Substantially Identical Outfall [017]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)					☐	☐	☑
290	**Substantially Identical Outfall [017]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)					☐	☐	☑
300	**Substantially Identical Outfall [019]** Free of Evidence of Erosion? (Range: 0 - 0)					☐	☐	☑
310	**Substantially Identical Outfall [019]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)					☐	☐	☑
320	**Substantially Identical Outfall [019]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)					☐	☐	☑
	Control Measures (identify needed maintenance and repairs, failed control measures that need replacment, or a description of corrective actions in relevant task comments).							
340	**Gravel Bags [0300303100008]** Control Measure is operating effectively? (Range: 0 - 0)					☐	☐	☑
350	**Gravel Bags [0300303100008]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?					☐	☐	☑
360	**Gravel Bags [0300303100009]** Control Measure is operating effectively? (Range: 0 - 0)					☐	☐	☑
370	**Gravel Bags [0300303100009]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?					☐	☐	☑
380	**Rip Rap [0300304060003]** Control Measure is operating effectively? (Range: 0 - 0)					☐	☐	☑
390						☐	☑	☐

	Rip Rap [0300304060003] If "Failed", is control measure in need of maintenance, Repair, or Replacement?					
400	**Rip Rap [0300304060004]** Control Measure is operating effectively? (Range: 0 - 0)			☑	☑	
410	**Rip Rap [0300304060004]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?			☑	☐	
420	**Rip Rap [0300304060005]** Control Measure is operating effectively? (Range: 0 - 0)			☐	☐	☑
430	**Rip Rap [0300304060005]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?			☐	☑	☐
440	**Rip Rap [0300304060006]** Control Measure is operating effectively? (Range: 0 - 0)			☐	☐	☑
450	**Rip Rap [0300304060006]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?			☐	☑	☐
460	**Rip Rap [0300304060007]** Control Measure is operating effectively? (Range: 0 - 0)			☐	☐	☑
470	**Rip Rap [0300304060007]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?			☐	☑	☐
480	**Detention Pond [0300311020001]** Control Measure is operating effectively? (Range: 0 - 0)			☐	☐	☑
490	**Detention Pond [0300311020001]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?			☐	☑	☐
500	**Detention Pond [0300311020002]** Control Measure is operating effectively? (Range: 0 - 0)			☐	☐	☑
510	**Detention Pond [0300311020002]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?			☐	☑	☐

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

530	Material loading/unloading and storage areas inspected?			☐	☐	☑
540	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)			☐	☐	☑
550	Transfer areas for substances in bulk inspected?			☐	☑	☐
560	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)			☐	☑	☐
570	Produce/chemical storage areas (raw material) inspected?			☐	☑	☐
580	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)			☐	☑	☐
590	Liquid tank storage/secondary containment inspected?			☐	☑	☐
600	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)			☐	☑	☐
610	Industrial processing and finished product storage areas inspected?			☐	☑	☐
620	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)			☐	☑	☐
630	Equipment operation and maintenance areas inspected?			☐	☑	☐
640	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)			☐	☑	☐
650	Fueling areas inspected?			☐	☑	☐
660	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)			☐	☑	☐

these do not exsist. mrs 7/28/16

mrs 7/28/16

670	Outdoor vehicle and equipment washing areas inspected?	☐	☑	☐
680	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☑	☐
690	Machinery inspected?	☐	☑	☐
700	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☑	☐
710	Waste handling and disposal areas inspected?	☐	☐	☑
720	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☐	☑
730	Erodible areas/construction inspected?f	☐	☑	☐
740	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☑	☐
750	Locations and sources of run-on to the site inspected?	☐	☐	☑
760	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☐	☑
770	Non-stormwater/illicit connections inspected?	☐	☑	☐
780	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☑	☐
790	Salt storage piles or pile containing salt inspected?	☐	☑	☐
800	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☑	☐
810	Dust generation and vehicle tracking inspected?	☐	☑	☐
820	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☑	☐
830	Housekeeping (Industrial materials/residues/trash in contact with stormwater) inspected?	☑	☐	☐
840	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☑	☐	☐
850	Leaks and spills inspected?	☐	☑	☐
860	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☑	☐
870	**Sector F [03003-F]** Baghouse for degradation that could limit efficiency and lead to excessive emissions inspected?	☐	☑	☐
880	**Sector F [03003-F]** Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☑	☐
	Non-Compliance			
900	Free of incidents of observed non-compliance not associated with any of the above? (Range: 0 - 0)	☑	☐	☐
	Additional Control Measures			
920	Are permit requirements satisfied with existing control measure(s) not associated with any of the above? (Range: 0 - 0)	☐	☐	☑
		☐	☐	☐

Labor Report

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

Report:

WO ID:_____ Page____ of____

Signature (lead inspector):_____ Date and Time: 7/28/16 11:50 am

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: Cliff Kirkland STO-FOD

Signature:_____ Date: 11/23/16

Los Alamos National Lab - ADESH

Work Order MSGP-59440

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

Maintenance Details

Requested: 12/6/2016 3:51:09 PM
Procedure: MSGP Stormwater Industrial Routine Facility Inspection (EPC-CP-Form-1020.1)
Last PM: N/A
Project: Routine Facility Inspections Dec 2016 (P-MSGP-RI-5158)

Target: 12/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex

Contact:
Phone:

Reason: MSGP Stormwater Industrial Routine Facility Inspection

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	Weather Information						
20	Describe the weather at time of inspection in the Weather lookup table. If "Other" is chosen, provide description in task comments of this line. Document the temperature (F°) in the "Reading" field of this line.	Mostly cloudy 44°F		WS 12/12/16	☐	☐	☒
	Within the Facility Boundary						
40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "Failed", describe:				☐	☐	☒
50	If "Failed" has a CAR been previously initiated for this new discharge? (Range: 0 - 0)				☐	☒	☐
60	Is the facility free of discharge of pollutants at the time of inspection? If "Failed" describe: (Range: 0 - 0) see labor report				☒	☐	☐
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "Failed" describe: (Range: 0 - 0) see labor report				☒	☐	☐
	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 [018]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☒
100	**Monitored Outfall [018]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☒
110	**Monitored Outfall [018]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☒
120	**Monitored Outfall [020]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☒
130	**Monitored Outfall [020]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☒
140	**Monitored Outfall [020]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☒

150	**Substantially Identical Outfall [013]** Free of Evidence of Erosion? (Range: 0 - 0)		☐	☐	☒
160	**Substantially Identical Outfall [013]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)		☐	☐	☒
170	**Substantially Identical Outfall [013]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)		☐	☐	☒
180	**Substantially Identical Outfall [014]** Free of Evidence of Erosion? (Range: 0 - 0)		☐	☐	☒
190	**Substantially Identical Outfall [014]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)		☐	☐	☒
200	**Substantially Identical Outfall [014]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)		☐	☐	☒
210	**Substantially Identical Outfall [015]** Free of Evidence of Erosion? (Range: 0 - 0)		☐	☐	☒
220	**Substantially Identical Outfall [015]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)		☐	☐	☒
230	**Substantially Identical Outfall [015]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)		☐	☐	☒
240	**Substantially Identical Outfall [016]** Free of Evidence of Erosion? (Range: 0 - 0)		☐	☐	☒
250	**Substantially Identical Outfall [016]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)		☐	☐	☒
260	**Substantially Identical Outfall [016]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)		☐	☐	☒
270	**Substantially Identical Outfall [017]** Free of Evidence of Erosion? (Range: 0 - 0)		☒	☐	☐
280	**Substantially Identical Outfall [017]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)		☒	☐	☐
290	**Substantially Identical Outfall [017]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)		☐	☐	☒
300	**Substantially Identical Outfall [019]** Free of Evidence of Erosion? (Range: 0 - 0)		☐	☐	☒
310	**Substantially Identical Outfall [019]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)		☐	☐	☒
320	**Substantially Identical Outfall [019]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)		☐	☐	☒

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

340	**Gravel Bags [0300303100008]** Control Measure is operating effectively? (Range: 0 - 0)		☐	☐	☒
350	**Gravel Bags [0300303100008]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?		☐	☒	☒ MD 12/12/16
360	**Gravel Bags [0300303100009]** Control Measure is operating effectively? (Range: 0 - 0)		☐	☐	☒
370	**Gravel Bags [0300303100009]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?		☐	☒	☐
380	**Rip Rap [0300304060005]** Control Measure is operating effectively? (Range: 0 - 0)		☐	☐	☒

390	**Rip Rap [0300304060005]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	☐	☒	☐
400	**Rip Rap [0300304060006]** Control Measure is operating effectively? (Range: 0 - 0)	☐	☐	☒
410	**Rip Rap [0300304060006]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	☐	☒	☐
420	**Rip Rap [0300304060007]** Control Measure is operating effectively? (Range: 0 - 0)	☐	☐	☒
430	**Rip Rap [0300304060007]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	☐	☒	☐
440	**Detention Pond [0300311020001]** Control Measure is operating effectively? (Range: 0 - 0)	☐	☐	☒
450	**Detention Pond [0300311020001]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	☐	☒	☐
460	**Detention Pond [0300311020002]** Control Measure is operating effectively? (Range: 0 - 0)	☐	☐	☒
470	**Detention Pond [0300311020002]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	☐	☒	☐
480	**Detention Pond [0300311020010]** Control Measure is operating effectively? (Range: 0 - 0)	☐	☐	☒
490	**Detention Pond [0300311020010]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	☐	☒	☐
500	**Detention Pond [0300311020011]** Control Measure is operating effectively? (Range: 0 - 0)	☐	☐	☒
510	**Detention Pond [0300311020011]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?	☐	☒	☐

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

530	Material loading/unloading and storage areas inspected?	☒	☐	☒ mvr 11/9/17
540	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☒	☐	☒ mvr 11/9/17
550	Transfer areas for substances in bulk inspected?	☐	☒	☐
560	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☒	☐
570	Produce/chemical storage areas (raw material) inspected?	☒ mvr 12/12/16	☐	☒
580	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☐	☒
590	Liquid tank storage/secondary containment inspected?	☐	☒	☐
600	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☐	☒
610	Industrial processing and finished product storage areas inspected?	☐	☒	☐
620	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☐	☒
630	Equipment operation and maintenance areas inspected?	☐	☒	☐
640	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☐	☒
650	Fueling areas inspected?	☐	☒	☐
660	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☐	☒

670	Outdoor vehicle and equipment washing areas inspected?	☐	☒	☐
680	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☐	☒
690	Machinery inspected?	☐	☒	☐
700	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☐	☒
710	Waste handling and disposal areas inspected?	☐	☐	☒
720	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☐	☒
730	Erodible areas/construction inspected?f	☐	☒	☐
740	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☐	☒
750	Locations and sources of run-on to the site inspected?	☐	☐	☒
760	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☐	☒
770	Non stormwater/illicit connections inspected?	☐	☒	☐
780	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☒	☐
790	Salt storage piles or pile containing salt inspected?	☐	☒	☐
800	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☒	☐
810	Dust generation and vehicle tracking inspected?	☐	☒	☐
820	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☒	☐
830	Housekeeping (Industrial materials/residues/trash in contact with stormwater) inspected?	☒	☐	☒ MW 1/9/17
840	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☒	☐	☐
850	Leaks and spills inspected?	☐	☒ MW 1/9/17	☒
860	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☒	☐
870	**Sector F [03003-F]** Baghouse for degradation that could limit efficiency and lead to excessive emissions inspected?	☐	☒	☒ MW 1/9/17
880	**Sector F [03003-F]** Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)	☐	☒	☐
	Non-Compliance			
900	Free of incidents of observed non-compliance not associated with any of the above? (Range: 0 - 0)	☒	☐	☐
	Additional Control Measures			
920	Are permit requirements satisfied with existing control measure(s)? If "Failed" describe additional control measures needed. (Range: 0 - 0)	☐	☐	☒
		☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Gallegos, Marc	12/30/2016 / 14				

Labor Report

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

Report:
Clean out drop inlet 013. Metal stock on northside of 3-141 needs to be covered or taken inside. This is located under the awning. Graphite dust inside drainage channel on westside of bldg 66 needs to be swept up.

Signature / Name | 12/12/16 Date | Signature / Name | 12/12/16 Date

WO ID:_____ Page____ of____

Signature (lead inspector):_____ Date and Time: 12/12/16 2:00 pm

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

CERTIFICATION STATEMENT

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

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

Print name and title: Cliff Kirkland STO-FOD

Signature:_____ Date: 1/11/17

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

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

Permit Information (* indicates form required data)

What action would you like to take? *

New Industrial Stormwater Annual Report

Enter the NPDES ID corresponding to the facility for which you would like to submit an Annual Report and click the Submit button.

NPDES ID *

NMR053195

☒ Confirm NPDES ID: NMR053195 *

Facility Information

Facility Name

Los Alamos National Laboratory

Street

PO Box 1663

Supplemental address

MS K490

City	State	Zip Code
Los Alamos	**New Mexico**	**87545**

First Name	Middle Name	Last Name	Telephone Number
Holly		**Wheeler**	**5056671312**

Summary of past year's inspections, assessments, and corrective actions

1. Provide a summary of your past year's routine facility inspection documentation (see Part 3.2 of the permit). In addition, if you are an operator of an airport facility (Sector S) that is subject to the airport effluent limitations guidelines, and are complying with the MSGP Part 8.S.8.1 effluent limitation through the use of non-urea-containing deicers, provide a statement certifying that you do not use airfield pavement deicers containing urea (e.g., "*I certify that [name of airport] is in compliance with the effluent limitation guideline for airfield pavement deicing by not using airfield pavement deicers that contain urea.*"). [Note: Operators of airport facilities that are complying with Part 8.S.8.1 by meeting the numeric effluent limitation for ammonia do not need to include this statement.] *

LANL consists of 14 sites under 8 Sectors (A, D, F, K, N, O, P, AA). As specified in a letter to EPA dated Nov 24, 2015, (ENV-DO-15-0328), LANL is providing information collected from the 2015 Comprehensive Site Inspection along with other documentation identified in Part 7.5 of the 2015 MSGP. All 14 sites, one inactive site and 25 sites that qualify for a conditional exclusion for no exposure were inspected Sept 8th-29th, 2015. The active sites became authorized to discharge stormwater under the 2015 MSGP on Oct 3, 2015. Routine inspections were then conducted at these sites in accordance with the 2015 MSGP. Corrective actions identified at all sites between Sept 1 and Dec 31, 2015 are summarized below. An evaluation of analytical monitoring data for the 2015 calendar year is included below.

Power & Steam Plant: Insp-4, Ctrls Maint, Repair, Repl-3, Ctrls Inad to Meet Non-Num. Eff Limit-1; TA-3-34 Metal Shop: Insp-1, Ctrls Inad to Meet Non-Num Eff Limit-1; TA-3-38 Carpenter Shop: Insp-5, Discharges During Insp-1; TA-3-38 Metals Fab Shop: Insp-7, Discharges During Insp-2, Pollutants Entering Drainage-2, Ctrls Inad to Meet Non-Num Eff Limit-1; TA-3-39 & 102 Metal Shop: Insp-2, Ctrls Inad to Meet Non-Num Eff Limit-1; Sigma Facility: Insp-3, Discharges During Insp-2, Ctrls Inad to Meet Non-Num Eff Limit-4; Heavy Equipment Maintenance: Insp-1, Discharges During Insp-1, Ctrls Inad to Meet Non-Num Eff Limit-1; TA-15-313 Machine Shop: Insp-1, Ctrls Inad to Meet Non-Num Eff Limit-1: TA-33-113 Machine Shop: Insp-1, Ctrls Inad to Meet Non-Num Eff Limit-1; TA-46-31 Machine Shop: Insp-1, Discharges During Insp-1, Ctrls Maint, Repair, Repl-1, Ctrls Inad to Meet Non-Num Eff Limit-3; TA-48-8 Machine Shop: Insp-1, Ctrls Maint, Repair, Repl-1, Ctrls Inad to Meet Non-Num Eff Limit-1; TA-53-2 Machine Shop: Insp-1, Ctrls Inad to Meet Non-Num Eff Limit-3; TA-53-16 Machine Shop: Insp-1, Ctrls Inad to Meet Non-Num Eff Limit-1; TA-53-18 Machine Shop: Insp-1, Ctrls Maint, Repair, Repl-1, Ctrls Inad to Meet Non-Num Eff Limit-1; TA-53-26 Machine Shop: Insp-1, Ctrls Inad to Meet Non-Num Eff Limit-1; TA-53-39 Shop & Storage Bldg: Insp-1, Ctrls Inad to Meet Non-Num Eff Limit-2; TA-54 Area L: Insp-3, Discharges During Insp-1, Ctrls Maint, Repair, Repl-1, Ctrls Inad to Meet Non-Num Eff Limit-2; Area G: Insp-9, Discharges During Insp-5, Ctrls Maint, Repair, Repl-3; Maintenance Facility West: Insp-4, Discharges During Insp-2, Ctrls Inad to Meet Non-Num Eff Limit-1, NonComp (NM WQS Exceed Al, Cu)-2*; RANT: Insp 2; Asphalt Batch Plant: Insp-5, Discharges During Insp-1, Ctrls Maint, Repair, Repl-1, Ctrls Inad to Meet Non-Num Eff Limit-1, NonComp (ELG Exceed TSS)-4**; MRF: Insp-6, Discharges During Insp-1, Ctrls Inad to Meet Non-Num Eff Limit-3; Roads & Grounds: Insp-6, Discharges During Insp-2, Ctrls Maint, Repair, Repl-5, Ctrls Inad to Meet Non-Num Eff Limit-9, NonComp (NM WQS Exceed Tl)-1; Heavy Equipment Yard: Insp-6, Discharges During Insp-1, Ctrls Maint, Repair, Repl-5, Ctrls Inad to Meet Non-Num Eff Limit-7; TA-60-2 Whse: Insp-5, Discharges During Insp-1, Prev Unidentified Discharges-1, Ctrls Inad to Meet Non-Num Eff Limit-4.

*Per Part 6.2.4.2 of the 2008 MSGP, LANL ceased monitoring for aluminum and copper at outfall 049, due to their presence below LANL background values submitted to EPA on November 4, 2010 (ENV-RCRA-10-215, LA-UR-10-07291).

**The 30-day avg. effluent limit was exceeded for TSS from rain events on 7/7, 7/15 and 7/20/2015, which were the only discharges that occurred during the second monitoring period at this facility. A subsequent sample was collected on 8/8/2015, which exceeded the daily max. effluent limit for TSS. This sample was collected before analytical results were received for the previous ELG monitoring. 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.
LA-UR-16-20466

2. Provide a summary of your past year's quarterly visual assessment documentation (see Part 3.3.2 of the permit) *

A total of 91 quarterly visual assessments were completed at 38 different outfalls. No obvious indicators of pollutants were present in any of these samples.
LA-UR-16-20466

3. For any four-sample (minimum) average benchmark monitoring exceedance, if after reviewing the selection, design, installation and implementation of your control measures and considering whether any modifications are necessary to meet the effluent limits in the permit, you determine that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice, provide your rationale for why you believe no further reductions are achievable (see Part 6.2.1.2 of the permit). *

At this time, LANL is not seeking to determine that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice. Therefore, no rationale is provided.
LA-UR-16-20466

4. Provide a summary of your past year's corrective action documentation (See Part 4.3 of the permit). (Note: If corrective action is not yet completed at the time of submission of this annual report, you must describe the status of any outstanding corrective action(s).) Also describe any incidents of noncompliance in the past year or currently ongoing, or if none, provide a statement that you are in compliance with the permit. *

Please see the response to Section 1 for a summary of corrective action documentation including unauthorized releases, discharges that violate a numeric effluent limit, control measures that were not stringent enough for the discharge to meet applicable water quality standards or the non-numeric effluent limits, and instances where control measures were never installed, were installed incorrectly or not in accordance with Parts 2 and/or 8 of the 2015 MSGP, or were not being properly operated or maintained. Regarding incidents of noncompliance, two ELG exceedances occurred at the TA-60 Asphalt Batch Plant. 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. Specifics relative to these exceedances are contained in the footnote to the table in response to Section 1 above. In addition, one New Mexico Water Quality Standard (WQS) exceedance occurred for Thallium at TA-60 Roads and Grounds. The other New Mexico WQS exceedances identified in Section 1 above are below natural background for LANL. All corrective actions identified during calendar year 2015 are closed.
LA-UR-16-20466

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 *	Form Action *
grieggst@lanl.gov	Approve

Appendix E – Quarterly Visual Assessment Records and Discharge Monitoring Reports

(See next page)

Los Alamos
NATIONAL LABORATORY
EST. 1943

memorandum

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

To/MS: Marc Gallegos, DESHF-STO, E509
Thru/MS: Terrill Lemke, EPC-CP, (E-File)
From/MS: Holly Wheeler, EPC-CP, (E-File)
Phone/Fax: 667-1312
Symbol: EPC-DO-16-302
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-3-66 Sigma Complex and TA-3-39 and 102 Metal Shop**

Please find attached completed MSGP QVA Forms documenting visual assessments performed during the first quarter of monitoring at the TA-3-66 Sigma Complex and TA-3-39 and 102 Metal Shop. 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 QVA documentation. Thank you for your assistance in meeting the requirements of the Laboratory's NPDES 2015 MSGP Permit.

TWL:HLW/lm

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

Facility Name	Sampling Station	Work Order #
TA-3-39 & 102 Metal Shop	MSGP00401	MSGP-53595
TA-3-39 & 102 Metal Shop	MSGP00401	MSGP-53806
TA-3-66 Sigma Complex	MSGP01801	MSGP-53598
TA-3-66 Sigma Complex	MSGP01301	MSGP-53790
TA-3-66 Sigma Complex	MSGP01401	MSGP-53791
TA-3-66 Sigma Complex	MSGP01501	MSGP-53792
TA-3-66 Sigma Complex	MSGP01601	MSGP-53793
TA-3-66 Sigma Complex	MSGP01701	MSGP-53794
TA-3-66 Sigma Complex	MSGP01801	MSGP-53807
TA-3-66 Sigma Complex	MSGP01401	MSGP-54181

Cy: Gary R. Schramm, DESHF-STO, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)

Los Alamos National Lab

Work Order MSGP-53598

MSGP Monitoring Stations
Printed 4/18/2016 - 7:26 PM

Maintenance Details

Requested: 4/18/2016 6:16:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/1/2013
Project: MSGP VISUALS- SNOW EVENT 4-18-16 (P-MSGP-4708)
Reason: MSGP Q1 Visual Assessment
Special Instructions: NMR053195

Target: 4/20/2016
Priority/Type: Normal / Preventive

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
MSGP01801

Contact:
Phone:

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		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		4/15/16 22:36		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		4/15/16 22:36		☐	☐	☑
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 14:52		☐	☐	☑
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 0.09 in Antecedent		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If no or unknown, provide reason in comments of this line.				☐	☐	☑
90	Previous storm ended >72 hours before start of storm? If no, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If no, describe.				☐	☐	☑
120	Is sample oderless? If no, document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If no, document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		01		☑	☐	☐
140	Is sample free of floating solids? If no, describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
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.		RAW - Vegetation		☑	☐	☐
160					☐	☐	☑

	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.	SUSSOL2				
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.		☐	☐	☑	
180	Is sample devoid of an oil sheen? If no, describe color and thickness (e.g. flecks, globs) in the comments of this line.		☐	☐	☑	
190	Is sample free of other obvious indicators of pollution? If no, describe in the comments of this line.		☐	☐	☑	

Documents

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

Labor Report

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

Report:

Signature (collecting sample): MSL Date and Time: 4/15/16 22:36

Signature (conducting visual assessment): MSL Date and Time: 4/20/16 14:52

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., EPC Group Leader or designee)

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

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

Los Alamos National Lab

Work Order MSGP-53790

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

Maintenance Details

Requested: 5/2/2016 11:40:58 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: N/A
Project: Sio Visual Assessments 5/2/16 (P-MSGP-4731)

Target: 5/31/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (013)
MSGP01301

Contact: Holly Wheeler
Phone: 667-1312

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.				☐	☐	☒
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☒
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		05/01/16 13:50 (estimated)		☐	☐	☒
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 (estimated)		☐	☐	☒
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 12:35		☐	☐	☒
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		Snow melt 0.36 in. 5/3/16 ~~30 minute max~~ 0.06"		☐	☐	☒
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 occured over the weekend		☒	☐	☐
90	Previous storm ended >72 hours before start of storm? If "Failed", provide reason in comments of this line. Snowmelt		multiple storm events occurred over the week-end.		☒	☐	☐
	Parameters						
110	Is sample colorless? If "Failed", describe.		lightly tan		☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☒
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		Slightly Cloudy		☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☒
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If		Fine		☒	☐	☐

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

Documents

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

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: MSGP-53790 Page 3 of 3

Signature (collecting sample): Holly Wheel Date and Time: 05/05/16 12:35

Signature (conducting visual assessment): Holly Wheel Date and Time: 05/05/16 12:35

CERTIFICATION STATEMENT

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

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

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

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

Los Alamos National Lab

Work Order MSGP-53791

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

Maintenance Details

Requested: 5/2/2016 11:40:59 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: N/A
Project: Sio Visual Assessments 5/2/16 (P-MSGP-4731)

Target: 5/31/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (014)
MSGP01401

Contact: Holly W Keller
Phone: 667-1312

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.		April May		☐	☐	☒
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☒
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		05/01/16 13:50 (estimated)		☐	☐	☒
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 (estimated)		☐	☐	☒
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 12:20		☐	☐	☒
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		Snow Melt 0.36 in. 05/04/16 ~~30 minute max.~~ 0.06"		☐	☐	☒
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.	Occured over the week end.	Personnel not present during non-work hours. Multiple storm events		☒	☐	☐
90	Previous storm ended >72 hours before start of storm? If "Failed", provide reason in comments of this line.	weekend. Snow melt.	Multiple storm events occured over the		☒	☐	☐
	Parameters						
110	Is sample colorless? If "Failed", describe.		light brown		☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☒
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		cloudy		☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☒
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If		Fine		☒	☐	☐

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

Documents

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

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: MSGP-53791 Page 3 of 3

Signature (collecting sample): Holly Wheeler Date and Time: 05/05/16 12:25

Signature (conducting visual assessment): Holly Wheeler Date and Time: 05/05/16 12:25

CERTIFICATION STATEMENT

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

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

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

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

Los Alamos National Lab

Work Order MSGP-53792

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

Maintenance Details

Requested: 5/2/2016 11:40:59 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: N/A
Project: Sio Visual Assessments 5/2/16 (P-MSGP-4731)

Target: 5/31/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (015)
MSGP01501

Contact: Holly Wheeler
Phone: 667-1312

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.		April May		☐	☐	☒
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☒
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		05/01/16 13:50 (estimated)		☐	☐	☒
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 (estimated)		☐	☐	☒
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 12:10		☐	☐	☒
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. AM 5/9/16 30 minute maximum Snow melt + rain		☐	☐	☒
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.	Snow melt & multiple storm events over the week-end			☒	☐	☐
90	Previous storm ended >72 hours before start of storm? If "Failed", provide reason in comments of this line.	Personnel not present during non work hours, Multiple Storm events occured over the weekend.			☒	☐	☐
	Parameters						
110	Is sample colorless? If "Failed", describe.	light tan			☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☒
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Slightly Cloudy			☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☒
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If				☐	☐	☒

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

Documents

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

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: MSGP-53792 Page 3 of 3

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

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

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

Los Alamos National Lab

Work Order MSGP-53793

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

Maintenance Details

Requested: 5/2/2016 11:41:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: N/A
Project: Sio Visual Assessments 5/2/16 (P-MSGP-4731)

Target: 5/31/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (016)
MSGP01601

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Contact: Holly Wheeler
Phone: 667-1312

Tasks

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

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

Documents

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

Labor Report

Completed: _____ **Failure:** _____

Report:

No Flow. No sample collected. No visual assessment performed.

WO ID: MSCP-53793 Page 2 of 3

Signature (collecting sample): [signature] Date and Time: 05/05/16 12:05 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 Greggs, EPC-CP Group Leader

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

Los Alamos National Lab

Work Order MSGP-53794

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

Maintenance Details

Requested: 5/2/2016 11:41:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: N/A
Project: Sio Visual Assessments 5/2/16 (P-MSGP-4731)

Target: 5/31/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (017)
MSGP01701

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Contact: Holly Wheeler
Phone: 667-1312

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.		April/May		☐	☐	☒
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☒
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		05/01/16 13:30 (estimated)		☐	☐	☒
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 (estimated)		☐	☐	☒
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 11:50		☐	☐	☒
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		~~0.06" 3x min. max.~~ 3x 05/9/16 Snow melt 0.36in.		☐	☐	☒
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line. over the weekend. Personnel were not present during non-work hours. Multiple storm events				☒	☐	☐
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.				☒	☐	☐
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☒
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☒
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☒
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☒
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If				☐	☐	☒

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

Documents

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

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: M86P-53794 Page 3 of 3

Signature (collecting sample): Holly Wheeler Date and Time: 05/05/16 11:55

Signature (conducting visual assessment): Holly Wheeler Date and Time: 05/05/16 11:55

CERTIFICATION STATEMENT

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

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

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

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

Los Alamos National Lab

Work Order MSGP-53807

MSGP Monitoring Stations
Printed 5/2/2016 - 1:22 PM

Maintenance Details

Requested: 5/2/2016 12:19:31 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 4/20/2016
Project: 2016 Q1 Visual Assessments 5/2/16 (P-MSGP-4732)

Target: 5/31/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
MSGP01801

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			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/30/16 22:29			☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	4/30/16 22:29			☐	☐	☑
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 15:02			☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	RR/RR2	0.22in AMB 5/6/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
90	Previous storm ended >72 hours before start of storm? If "Failed", provide reason in comments of this line.	Previous storm event 4/29/16. AMB 5/6/16			☒	☐	☑ AMB 5/6/16
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If				☐	☐	☑

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

Documents

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

Labor Report

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

Report:

WO ID: MSGP-53807 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 4/30/16 22:29

Signature (conducting visual assessment): MSL Date and Time: 5/4/16 15:02

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

Los Alamos National Lab

Work Order MSGP-54181

MSGP Monitoring Stations
Printed 5/16/2016 - 11:03 AM

Maintenance Details

Requested: 5/16/2016 10:53:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 5/5/2016
Project: SIO Visual Assessments 5-16-16 (P-MSGP-4768)

Target: 5/31/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (014)
MSGP01401

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Contact:
Phone:

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP1			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	approx. 5/19/16@16:10			☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	approx - 5/19/16@16:10			☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	5/20/16 1:50			☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain 0.08"			☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.	Grey BKS 5/20/16			☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Grey			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Cloudy			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	leaves			☑	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fines			☑	☐	☐
160					☐	☐	☐

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

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: MSGP-54181 Page 3 of 3

Signature (collecting sample): Brad Schultz Date and Time: BLS 5/20/16 5/20/16 1:50

Signature (conducting visual assessment): Brad Schultz Date and Time: 5/20/16 1:50

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

Los Alamos
NATIONAL LABORATORY
EST. 1943

memorandum

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

To/MS: Marc Gallegos, DESHF-STO, E509
Thru/MS: Terrill Lemke, EPC-CP, (E-File)
From/MS: Holly Wheeler, EPC-CP, (E-File)
Phone/Fax: 667-1312
Symbol: EPC-DO: 17-023
Date: JAN 13 2017

Subject: **National Pollutant Discharge Elimination System (NPDES) Permit No. NMR053195, Multi-Sector General Permit (MSGP) Quarterly Visual Assessment (QVA) Forms for June and July of 2016 for the TA-3-66 Sigma Complex**

Please find attached completed MSGP QVA Forms documenting visual assessments performed during the second quarter of monitoring at the TA-3-66 Sigma Complex. Per Parts 3.2.2 and 5.5 of the 2015 MSGP, the QVA forms shall be incorporated into your MSGP Storm Water Pollution Prevention Plan (SWPPP).

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

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

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

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

Part 3.2.3 of the 2008 MSGP allows the facility to take a substitute sample during the next qualifying storm event when adverse weather conditions prevent the collection of samples during a specific quarter. Adverse weather conditions are those that are dangerous or create inaccessibility for personnel, or situations that otherwise make sampling impractical, such as drought or extended frozen

conditions. Documentation of the rationale for no visual assessment for the quarter must be included in the facility-specific SWPPP.

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

TWL:HLW/am

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

Facility Name	Sampling Station	Work Order #
TA-3-66 Sigma Complex	MSGP02001	MSGP-53604
TA-3-66 Sigma Complex	MSGP01301	MSGP-54180
TA-3-66 Sigma Complex	MSGP01501	MSGP-54182
TA-3-66 Sigma Complex	MSGP01601	MSGP-54183
TA-3-66 Sigma Complex	MSGP01701	MSGP-54184
TA-3-66 Sigma Complex	MSGP01901	MSGP-54211
TA-3-66 Sigma Complex	MSGP01401	MSGP-54710
TA-3-66 Sigma Complex	MSGP01501	MSGP-55360
TA-3-66 Sigma Complex	MSGP02001	MSGP-56029
TA-3-66 Sigma Complex	MSGP01401	MSGP-56124
TA-3-66 Sigma Complex	MSGP01401	MSGP-56648
TA-3-66 Sigma Complex	MSGP01301	MSGP-57044
TA-3-66 Sigma Complex	MSGP01401	MSGP-57045
TA-3-66 Sigma Complex	MSGP01501	MSGP-57046

Copy: Garry Schramm, DESHF-STO, (E-File)
Adesh-records@lanl.gov, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)

ENCLOSURE 1

Quarterly Visual Assessment Forms
Second Quarter, 2016 Monitoring Year

EPC-DO:17-023

Date: JAN 13 2017

Los Alamos National Lab

Work Order MSGP-53604

MSGP Monitoring Stations
Printed 5/31/2016 - 6:18 PM (Duplicate Copy)

Maintenance Details

Requested: 5/31/2016 5:29:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 4/19/2016
Project: MSGP Visual Assessments wk 5/30/16 (P-MSGP-4804)

Target: 7/31/2016
Priority/Type: / Inspection

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (020)
MSGP02001

Contact:
Phone:

Reason: MSGP 2016 Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)	~~7/14/14~~	~~1355~~		☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/1/14	1356		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/1/14	1356		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/4/14	1525		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR	0.28 in. AND 7/18/14		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine (SCTSOL)			☑	☐	☐
160					☐	☐	☑

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

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: MSGP-53604 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 7/1/16 1356

Signature (conducting visual assessment): MSL Date and Time: 7/6/16 1525

CERTIFICATION STATEMENT

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

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

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

Signature: A R Gregg Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-54180

MSGP Monitoring Stations
Printed 6/1/2016 - 2:03 PM

Maintenance Details

Requested: 5/16/2016 10:53:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 5/5/2016
Project: SIO Visual Assessments wk 5/30/16 (P-MSGP-4806)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (013)
MSGP01301

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/25/16 1325			☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/25/16 1325			☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/26/16 3:08			☐	☐	☑
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. PMD 5/11/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Light Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Musty			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Cloudy			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine			☑	☐	☐
160					☑	☐	☐

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

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: 54180 Page 3 of 3

Signature (collecting sample): Audrey Smith Date and Time: 7/26/16 3:08

Signature (conducting visual assessment): Audrey Smith Date and Time: 7/26/16 3:08

CERTIFICATION STATEMENT

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

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

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

Signature: A R Conneggs Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-54182

MSGP Monitoring Stations
Printed 6/1/2016 - 2:03 PM

Maintenance Details

Requested: 5/16/2016 10:53:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 5/5/2016
Project: SIO Visual Assessments wk 5/30/16 (P-MSGP-4806)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (015)
MSGP01501

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.		Jun-July		☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		06/07/16 Apx 15:23	tlw 06/09/16	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		~~6/8/16~~ 06/07/16 Apx 15:23	tlw 06/09/16	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		6/8/16 1032		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		Rain 0.07"	tlw 06/09/16	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.		Per datalogger & precip data		☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		Musty		☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		Fine		☑	☐	☐
160					☐	☐	☑

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

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: 54182 Page 3 of 3

Signature (collecting sample): Audrey Smith Date and Time: 6/8/16 1032

Signature (conducting visual assessment): Audrey Smith Date and Time: 6/8/16 1032

CERTIFICATION STATEMENT

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

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

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

Signature: A R Cortegoso Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-54183

MSGP Monitoring Stations
Printed 6/1/2016 - 2:03 PM

Maintenance Details

Requested: 5/16/2016 10:53:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 5/5/2016
Project: SIO Visual Assessments wk 5/30/16 (P-MSGP-4806)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (016)
MSGP01601

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.		Q2		☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		07/31/16 at 12:49	HSW 8/8/16	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		07/31/16 at 12:49	HSW 8/8/16	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		08/01/16 ~~15~~ 16:29 A)		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		Rain 1"	HSW 8/8/16	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		SETSOL1		☑	☐	AJ ☑
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.	LLS SETJOL1				
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.		☐	☐	☑	
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line.		☐	☐	☑	
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line.		☐	☐	☑	
			☐	☐	☐	

Labor Report

Completed: _____ **Failure:** _____

Report:

Discharge date and time were taken from the data logger. Rain amount was taken from the precipitation report for rain gage 121.9 on 07/31/2016 by LWI 08/09/16

WO ID: 54183 Page 3 of 3

Signature (collecting sample): Audrey Smith Date and Time: 8/01/16 16:30

Signature (conducting visual assessment): Audrey Smith Date and Time: 8/01/16 16:30

CERTIFICATION STATEMENT

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

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

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

Signature: A R Greggs Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-54184

MSGP Monitoring Stations
Printed 6/1/2016 - 2:03 PM

Maintenance Details

Requested: 5/16/2016 10:53:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 5/5/2016
Project: SIO Visual Assessments wk 5/30/16 (P-MSGP-4806)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (017)
MSGP01701

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	Q2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	07/31/16 12:43		MSW 8/8/16	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	07/31/16 12:43		MSW 8/8/16	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/01/16	4.26	AJ 1026	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain 1"		MSW 8/8/16	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOLI			☑	☐	AJ ☑
160					☐	☐	☑

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

Labor Report

Completed: _____ **Failure:** _____

Report:

Discharge date and time was taken from the data logger. Rain amount was taken from the precipitation report for rain gage 12.1.9 on 07/31/2016. HSB 08/08/16

WO ID: 54184 Page 3 of 3

Signature (collecting sample): Audrey Smith Date and Time: 8/01/16 4:27

Signature (conducting visual assessment): Audrey Smith Date and Time: 8/01/16 4:27

CERTIFICATION STATEMENT

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

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

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

Signature: A R Greggs Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-54211

MSGP Monitoring Stations
Printed 6/1/2016 - 2:03 PM

Maintenance Details

Requested: 5/16/2016 11:58:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: N/A
Project: SIO Visual Assessments wk 5/30/16 (P-MSGP-4806)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (019)
MSGP01901

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.		MP2		☐	☐	☒
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☒
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		07/31/16 12:40	8/8/16	☐	☐	☒
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		07/31/16 12:40	8/8/16	☐	☐	☒
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		08/01/16 @ 11:20		☐	☐	☒
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		Rain 1"		☐	☐	☒
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☒
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☒
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☒
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☒
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☒
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		SS1 & SS2		☒	☐	☐
160					☐	☐	☒

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

Labor Report

Completed: _____ **Failure:** _____

Report:

Discharge date and time was taken from the data logger. Rain amount was from the precipitation report for rain gage 121.9 on 07/31/2016. TJW 9/8/16.

WO ID: MSGP-54211 Page 3 of 3

Signature (collecting sample): Holly Wheeler Date and Time: 08/01/16 16:24

Signature (conducting visual assessment): Holly Wheeler Date and Time: 08/01/16 16:24

CERTIFICATION STATEMENT

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

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

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

Signature: A R Carreggo Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-54710

MSGP Monitoring Stations
Printed 6/1/2016 - 2:03 PM

Maintenance Details

Requested: 6/1/2016 1:29:24 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 5/20/2016
Project: SIO Visual Assessments wk 5/30/16 (P-MSGP-4806)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (014)
MSGP01401

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	Q2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/1/16 1345 AS			☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/1/16 1345 AS			☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/5/16 3:45			☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain	0.28 in. AMB 7/14/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fines			☑	☐	☐
160					☑	☐	☐

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

Labor Report

Completed: _____ **Failure:** _____

Report:

54710 AS

WO ID: ~~55528~~ Page 3 of 3

Signature (collecting sample): Audrey Smith Date and Time: 7/5/16 3:48

Signature (conducting visual assessment): Audrey Smith Date and Time: 7/5/16 3:48

CERTIFICATION STATEMENT

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

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

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

Signature: A R Griggs Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-55360

MSGP Monitoring Stations
Printed 6/20/2016 - 5:40 PM

Maintenance Details

Requested: 6/20/2016 5:28:52 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 6/8/2016
Project: SIO Visual Assessments wk 6-20-16 (P-MSGP-4868)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (015)
MSGP01501

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/25/16 @ 1325			☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/25/16 @ 1325			☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/26/16 3:02			☐	☐	☑
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 ~~0.24~~ in. AKOG 7/26/16			☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Musty			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Opaque			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine			☑	☐	☐
160					☑	☐	☐

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

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: 55360 Page 3 of 3

Signature (collecting sample): Audrey Smith Date and Time: 7/26/16 3:02

Signature (conducting visual assessment): Audrey Smith Date and Time: 7/26/16 3:02

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. Coreggs, EPC-CP Group Leader

Signature: A R Coreggs Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-56029

MSGP Monitoring Stations
Printed 7/13/2016 - 1:00 PM

Maintenance Details

Requested: 7/13/2016 12:55:25 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/6/2016
Project: MSGP Visual Assessments 7/13/16 (P-MSGP-4934)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (020)
MSGP02001

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/21/16	13:20		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/21/16	13:20		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/21/16	1436		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.21 in. DAD 7/25/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids				☐	☐	☑

	lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.					
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☐	☐	☑
				☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: MSGP.56029 Page 3 of 3

Signature (collecting sample): _____ Date and Time: 7/21/16 13:20

Signature (conducting visual assessment): MSL Date and Time: 7/21/16 1436

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. Conegap, EPC-CP Group Leader

Signature: A R Conegap Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-56124

MSGP Monitoring Stations
Printed 7/14/2016 - 5:58 PM

Maintenance Details

Requested: 7/14/2016 5:55:57 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/5/2016
Project: SIO Visual Assessments 7-14-16 (P-MSGP-4944)

Target: 7/31/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (014)
MSGP01401

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.		Q2		☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		07/19/16 14:25 HSW 7/25/16		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		07/19/16 14:25		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		7/20/16 1:42		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		Rain 0.13in. HSW 7/25/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.		Light Tan		☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		Fine		☑	☐	☐

160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: 56124 Page 3 of 3

Signature (collecting sample): Audrey Smith Date and Time: 7/20/16 1:42

Signature (conducting visual assessment): Audrey Smith Date and Time: 7/20/16 1:42

CERTIFICATION STATEMENT

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

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

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

Signature: A R Greggs Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-56648

MSGP Monitoring Stations
Printed 7/26/2016 - 3:38 PM

Maintenance Details

Requested By: Banar, Alethea on 7/26/2016 3:36:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/20/2016
Project: SIO Visual Assessments 7-25-16 (P-MSGP-4983)

Target: 7/31/2016
Priority/Type: / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (014)
MSGP01401

Contact: Banar, Alethea
Phone: 665-0454

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/25/16 @1325			☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/25/16 @1325			☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/26/16	3:06		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain	0.08 in. Accum		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Light Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Musty			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Opaque			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If				☑	☐	☐

	"other" is chosen from the lookup table, provide description in comments of this line.	Fine			
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Fine	☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: 566648 Page 2 of 2

Signature (collecting sample): Audrey Smith Date and Time: 7/26/16 3:06

Signature (conducting visual assessment): Audrey Smith Date and Time: 7/26/16 3:06

CERTIFICATION STATEMENT

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

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

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

Signature: A R Conegge Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-57044

MSGP Monitoring Stations
Printed 8/1/2016 - 4:03 PM

Maintenance Details

Requested By: Banar, Alethea on 8/1/2016 3:59:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/26/2016
Project: SIO Visual Assessments 8/1/16 (P-MSGP-5014)

Target: 8/12/2016
Priority/Type: / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (013)
MSGP01301

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.		MP2		☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		07/31/16 12:36	YDSW 08/08/16	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		07/31/16 12:36	YDSW 08/08/16	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		8/01/16	16:35	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		Rain 1"	YDSW 08/08/16	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.		Brown		☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			AS	☑	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		Opaque		☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		AS Fine	AS	☒	☐	☒ AS OK
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If		Fine: SETSOL 1		☑	☐	☐

	"other" is chosen from the lookup table, provide description in comments of this line.					
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		Fine. SEE 42	☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☐	☐	☑
				☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

Date and time of discharge were taken from the data logger. Rain amount of 1" was taken from rain gage 121.9 on precipitation report.

WO ID: 57044 Page 3 of 3

Signature (collecting sample): Audrey Smith Date and Time: 8/01/16 16:35

Signature (conducting visual assessment): Audrey Smith Date and Time: 8/01/16 16:35

CERTIFICATION STATEMENT

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

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

Print name and title: Anthony R. Carnegie, ER-CP Group Leader

Signature: AR Carnegie Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-57045

MSGP Monitoring Stations
Printed 8/1/2016 - 4:03 PM

Maintenance Details

Requested By: Banar, Alethea on 8/1/2016 4:02:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/26/2016
Project: SIO Visual Assessments 8/1/16 (P-MSGP-5014)

Target: 8/12/2016
Priority/Type: / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (014)
MSGP01401

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.		MP2		☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		07/31/16 at 12:40		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		07/31/16 at 12:40		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		8/01/16 16:40		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		Rain 1"		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.		Brown		☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		Musty		☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		Opaque		☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		AS		☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		SETSOL1		☑	☐	☐

160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	US SESOL I	☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

Discharge date and time are taken from the data logger. Rain amount is from rain gage 121.7 for 7/31/2016. YDSW 07/31/2016.

WO ID: 57045 Page 3 of 3

Signature (collecting sample): Audrey Smith Date and Time: 8/04/16 16:40

Signature (conducting visual assessment): Audrey Smith Date and Time: 8/04/16 16:40

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. Conaggo, ER-cP Group Leader

Signature: A R Conaggo Date: 9/14/2016

Los Alamos National Lab

Work Order MSGP-57046

MSGP Monitoring Stations
Printed 8/1/2016 - 4:03 PM

Maintenance Details

Requested By: Banar, Alethea on 8/1/2016 4:02:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/26/2016
Project: SIO Visual Assessments 8/1/16 (P-MSGP-5014)

Target: 8/12/2016
Priority/Type: / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (015)
MSGP01501

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP2			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	07/31/2016 @aft 12:40		WDSW 8/8/16	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	07/31/2016 @aft 12:40		WDSW 8/8/16	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	08/01/16 16:42			☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	Rain 1"		WDSW 8/8/16	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Musty			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Opaque			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOIL			☑	☐	☐

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.	US SF/SOLI	☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

Discharge date and time were taken from the precipitation report for rain gauge 121.9 on 7/31/2016. Ldgw 8/8/2016

WO ID: 57046 Page 3 of 3

Signature (collecting sample): Audrey Smith Date and Time: 08/01/16 16:42

Signature (conducting visual assessment): Audrey Smith Date and Time: 08/01/16 16:42

CERTIFICATION STATEMENT

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

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

Print name and title: Anthony R. Conegge, EPC-CP Group leader

Signature: A R Conegge Date: 9/14/2016

Los Alamos
NATIONAL LABORATORY
EST. 1943

memorandum

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

To/MS: Marc Gallegos, DESHF-STO, E509
Thru/MS: Terrill Lemke, EPC-CP, (E-File)
From/MS: Holly Wheeler, EPC-CP, (E-File)
Phone/Fax: 667-1312
Symbol: EPC-DO: 17-035

Date: JAN 13 2017

Subject: **National Pollutant Discharge Elimination System (NPDES) Permit No. NMR053195, Multi-Sector General Permit (MSGP) Quarterly Visual Assessment (QVA) Forms for August and September of 2016 for the TA-3-66 Sigma Complex**

Please find attached completed MSGP QVA Forms documenting visual assessments performed during the third quarter of monitoring at the TA-3-66 Sigma Complex. Per Parts 3.2.2 and 5.5 of the 2015 MSGP, this memorandum along with all of the attached QVA forms shall be incorporated into your MSGP Storm Water Pollution Prevention Plan (SWPPP).

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

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

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

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

The signed certification statement contained in this memorandum satisfies the duly authorized signatory requirement for the QVAs completed by EPC-CP representatives contained in Enclosure 1.

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

Anthony R. Grieggs, EPC-CP Group Leader
(Print name and title)
Los Alamos National Laboratory

Manager Signature

1/13/17
Date

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

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

TWL:HLW/am

Enclosure: 1. Quarterly Visual Assessment Forms Requiring a Certification Statement Signature, Third Quarter, 2016 Monitoring Year

Facility Name	Sampling Station	Work Order #
TA-3-66 Sigma Complex	MSGP01801	MSGP-54113
TA-3-66 Sigma Complex	MSGP02001	MSGP-56952
TA-3-66 Sigma Complex	MSGP01301	MSGP-57759
TA-3-66 Sigma Complex	MSGP01401	MSGP-57760
TA-3-66 Sigma Complex	MSGP01501	MSGP-57761
TA-3-66 Sigma Complex	MSGP01601	MSGP-57762
TA-3-66 Sigma Complex	MSGP01701	MSGP-57763
TA-3-66 Sigma Complex	MSGP01801	MSGP-58309
TA-3-66 Sigma Complex	MSGP01801	MSGP-58310
TA-3-66 Sigma Complex	MSGP01301	MSGP-58315
TA-3-66 Sigma Complex	MSGP01401	MSGP-58316
TA-3-66 Sigma Complex	MSGP01501	MSGP-58317
TA-3-66 Sigma Complex	MSGP01601	MSGP-58318
TA-3-66 Sigma Complex	MSGP01701	MSGP-58319
TA-3-66 Sigma Complex	MSGP01401	MSGP-58408
TA-3-66 Sigma Complex	MSGP01501	MSGP-58409
TA-3-66 Sigma Complex	MSGP01701	MSGP-58410
TA-3-66 Sigma Complex	MSGP01401	MSGP-58497
TA-3-66 Sigma Complex	MSGP01501	MSGP-58498
TA-3-66 Sigma Complex	MSGP01701	MSGP-58499
TA-3-66 Sigma Complex	MSGP01401	MSGP-58509
TA-3-66 Sigma Complex	MSGP01501	MSGP-58510
TA-3-66 Sigma Complex	MSGP01701	MSGP-58511
TA-3-66 Sigma Complex	MSGP01801	MSGP-58520
TA-3-66 Sigma Complex	MSGP01301	MSGP-58542
TA-3-66 Sigma Complex	MSGP01601	MSGP-58543
TA-3-66 Sigma Complex	MSGP01401	MSGP-58545
TA-3-66 Sigma Complex	MSGP01501	MSGP-58546
TA-3-66 Sigma Complex	MSGP01701	MSGP-58547

Copy: Garry Schramm, DESHF-STO, (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

Quarterly Visual Assessment Forms Requiring a Certification Statement Signature

Third Quarter, 2016 Monitoring Year

EPC-DO: 17-035

Date: JAN 1 3 2017

Los Alamos National Lab

Work Order MSGP-54113

MSGP Monitoring Stations
Printed 5/31/2016 - 6:18 PM

Maintenance Details

Requested: 5/31/2016 5:45:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 5/18/2016
Project: MSGP Visual Assessments wk 5/30/16 (P-MSGP-4804)

Target: 9/30/16 ~~7/31/2016~~ AMD 8/15/16
Priority/Type: / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
MSGP01801

Contact:
Phone:

Reason: MSGP 2016 Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/4/16	1156		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/4/16	1159 TSN 8/10/16		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/8/16	1422		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.28 in. AMD 8/15/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C2			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SgTSol 2			☑	☐	☐
160					☑	☐	☐

	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SUSSOL2				
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line.				☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line.				☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line.				☐	☐	☑
					☐	☐	☐

Labor Report

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

Report:

WO ID: MSGP-54113 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 8/4/16 1154

Signature (conducting visual assessment): MSL Date and Time: 8/8/16 1422

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab

Work Order MSGP-56952

MSGP Monitoring Stations
Printed 8/1/2016 - 9:45 AM

Maintenance Details

Requested: 8/1/2016 9:43:50 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/25/2016
Project: Visual Assessments wk 8/1/16 (P-MSGP-5007)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (020)
MSGP02001

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/3/16	1840		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/3/16	1840		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/4/16	1112		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.61 in. Aug 8/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids				☐	☐	☑

	lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.					
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☐	☐	☑
				☐	☐	☐

Labor Report

Completed: _____ **Failure:** _____

Report:

WO ID: MSGP - 56952 ~~56932~~ AMB 9/30/16 Page 3 of 3

Signature (collecting sample): MSL. Date and Time: 6/3/16 1840

Signature (conducting visual assessment): MSL. Date and Time: 8/4/16 1112

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab

Work Order MSGP-57759

MSGP Monitoring Stations
Printed 8/8/2016 - 12:31 PM

Maintenance Details

Requested: 8/8/2016 12:28:47 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/26/2016
Project: SIO Visual Assessments 8/8/16 (P-MSGP-5073)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (013)
MSGP01301

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.		MP 3		☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		08/08/16 HSW start 11:30 8/17/16		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		08/08/16 HSW start 11:30 8/17/16		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		08/09/16 13:45		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		HSW 8/17/16 Rain 0.37"		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	light tan			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Cloudy			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line. SETSOL1 & SETSOL2				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☑
					☐

Labor

Labor	Work Date	Reg Hrs	OT Hrs	Other Hrs

Labor Report

Completed: _____ **Failure:** _____

Report:

Jar was completely filled with sediment. There was 1/2" of water on top of sediment for VA. Discharge and sample collection date and time were taken from the precipitation report for 8/08/16. Precipitation data is from rain gage 121.9 on the same day.

Signature / Name	Date	Signature / Name	Date

WO ID: 57759 Page 3 of 3

Signature (collecting sample): Audrey Smith Date and Time: 08/09/16 13:45

Signature (conducting visual assessment): Audrey Smith Date and Time: 08/09/16 13:45

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: _____

Signature: _____ Date: _____

Los Alamos National Lab

Work Order MSGP-57760

MSGP Monitoring Stations
Printed 8/8/2016 - 12:31 PM

Maintenance Details

Requested: 8/8/2016 12:28:47 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/26/2016
Project: SIO Visual Assessments 8/8/16 (P-MSGP-5073)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (014)
MSGP01401

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.		MP2		☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		08/08/16 start 11:30	HSW 8/17/16	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		08/08/16 at 11:30	HSW 8/17/16	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		08/09/16 13:52		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		Rain 0.37"	HSW 8/17/16	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.		Brown		☑	☐	☑ AJ
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		Opaque		☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOLI			
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.	SUSSOLI	☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor

Labor	Work Date	Reg Hrs	OT Hrs	Other Hrs

Labor Report

Completed: _____ **Failure:** _____

Report:

Discharge and sample collection date and time were taken from the precipitation report for 8/08/16. Precipitation data is from rain gage 161.9' on the same day. Ldfw 8/17/16

Signature / Name	Date	Signature / Name	Date

WO ID: 577160 Page 3 of 3

Signature (collecting sample): Audrey Smith Date and Time: 08/09/16 13:52

Signature (conducting visual assessment): Audrey Smith Date and Time: 08/09/16 13:52

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:_____

Signature:_____ Date:_____

Los Alamos National Lab

Work Order MSGP-57761

MSGP Monitoring Stations
Printed 8/8/2016 - 12:31 PM

Maintenance Details

Requested: 8/8/2016 12:28:48 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/26/2016
Project: SIO Visual Assessments 8/8/16 (P-MSGP-5073)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (015)
MSGP01501

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.		MP3		☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)		08/08/16 @apx 11:30	HSW 08/17/16	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		08/08/16 at apx. 11:30	HSW 08/17/16	☐	☐	☑
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).		08/09/16 13:58	HSW 8/09/16	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		Rain 0.37"		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.		TAN		☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		Opaque		☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
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.	SETSOLI			
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.	SUSSOLI	☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor

Labor	Work Date	Reg Hrs	OT Hrs	Other Hrs

Labor Report

Completed: _____ **Failure:** _____

Report:

Discharge and sample collection date and time are taken from the precipitation report for 8/08/16. Precipitation data is from rain gage 121.9 on the same date. dbj 8/17/16

Signature / Name	Date	Signature / Name	Date

WO ID: 577601 Page 3 of 3

Signature (collecting sample): Rodney Smith Date and Time: 08/09/16 13:57

Signature (conducting visual assessment): Rodney Smith Date and Time: 08/09/16 13:58

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab

Work Order MSGP-57762

MSGP Monitoring Stations
Printed 8/8/2016 - 12:31 PM

Maintenance Details

Requested: 8/8/2016 12:28:48 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/26/2016
Project: SIO Visual Assessments 8/8/16 (P-MSGP-5073)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (016)
MSGP01601

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.		MP3		☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		08/08/16 at 11:30	tdgw 8/16/16	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		08/08/16 at 11:30	tdgw 8/16/16	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		08/09/16	1103	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		PR1 0.37"	tdgw 8/16/16	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		Musty		☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☐	☐	☑

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				
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.	SLDSOLZ.	☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor

Labor	Work Date	Reg Hrs	OT Hrs	Other Hrs

Labor Report

Completed: _____ **Failure:** _____

Report:

Discharge and sample collection date and time were taken from the precipitation vault for 8/08/16. Precipitation data is from rain gage 12L.9 on the same date. HSW 8/08/16

Signature / Name	Date	Signature / Name	Date

WO ID: 577762 Page 3 of 3

Signature (collecting sample): Audrey Smith Date and Time: 08/09/16 11:03

Signature (conducting visual assessment): Audrey Smith Date and Time: 8/9/16 11:03

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab

Work Order MSGP-57763

MSGP Monitoring Stations
Printed 8/8/2016 - 12:31 PM

Maintenance Details

Requested: 8/8/2016 12:28:49 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 7/26/2016
Project: SIO Visual Assessments 8/8/16 (P-MSGP-5073)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (017)
MSGP01701

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.		MP3		☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		08/08/16 11:28	08/12/16	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	A20	08/08/16 11:28	08/12/16	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		08/09/16 10:55	8/12/16	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		Rain 0.37"		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		Musty		☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☐	☐	☑

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				
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.	SUSSOLI	☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor

Labor	Work Date	Reg Hrs	OT Hrs	Other Hrs

Labor Report

Completed: _____ **Failure:** _____

Report:

Discharge and sample collection date and time are taken from the data logger. Precipitation data is from rain gage 121.9 on 8/08/2016. Ldeju 8/12/2016.

Signature / Name	Date	Signature / Name	Date

Signature (collecting sample): Audrey Smith Date and Time: 08/09/16 10:55

Signature (conducting visual assessment): Audrey Smith Date and Time: 08/09/16 10:55

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58309

MSGP Monitoring Stations
Printed 8/17/2016 - 12:00 PM

Maintenance Details

Requested By: Banar, Alethea on 8/17/2016 11:57:00 AM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/8/2016
Project: VISUAL ASSESSMENTS 8-8-16 (P-MSGP-5074)

Target: 9/30/2016
Priority/Type: / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
MSGP01801

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment
Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/11/16	7:01		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/11/16	7:01		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/12/16	1520		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PRI	8/10/16 0.08" AND 8/12/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☐
	Parameters						
110	Is sample colorless? If "Failed", describe.	light Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C1			☑	☐	☐

140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Very			☑	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL2			☑	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SUSSOL2			☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☐	☑
					☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

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

Report:

_____

_____

_____

_____

_____ _____ _____ _____

Signature / Name Date Signature / Name Date

Signature (collecting sample): MSH. Date and Time: 8/11/16 7:01

Signature (conducting visual assessment): MSH. Date and Time: 8/12/16 1528

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58310

MSGP Monitoring Stations
Printed 8/17/2016 - 12:00 PM

Maintenance Details

Requested By: Banar, Alethea on 8/17/2016 11:58:00 AM
Taken By: Banar, Alethea
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/8/2016
Project: VISUAL ASSESSMENTS 8-8-16 (P-MSGP-5074)

Target: 9/30/2016
Priority/Type: / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
MSGP01801

Contact: Banar, Alethea
Phone: 699-5836

Reason: MSGP Quarterly Visual Assessment
Monitoring Period:
Odor:
Clarity:
Settled Solids:
Suspended Solids:
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/13/16	1422		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/13/16	1422		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/16/16	1623		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.3 in AMB 8/13/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C2			☑	☐	☐
					☑	☐	☐

140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg				
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SeTSOL2			☑	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SuSSOL2			☑	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☑
					☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

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

Report:

_____

_____

_____

_____

_____ _____ _____ _____

Signature / Name Date Signature / Name Date

WO ID: MSGP-58310 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 8/13/16 1422

Signature (conducting visual assessment): MSL Date and Time: 8/16/16 1623

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58315

MSGP Monitoring Stations
Printed 8/17/2016 - 2:27 PM

Maintenance Details

Requested: 8/17/2016 2:20:54 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/1/2016
Project: SIO Visuals 8-16-16 (P-MSGP-5099)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (013)
MSGP01301

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/27/16	11:51		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/27/16 ~~8/29/16~~	1157 ~~1651~~		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/29/16	1651		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.85 in. AKB 9/6/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	O1			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C3			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL			
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SUSSOL2	☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor

Labor	Work Date	Reg Hrs	OT Hrs	Other Hrs

Labor Report

Completed: _____ **Failure:** _____

Report:

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_____ _____ _____ _____

Signature / Name | Date | Signature / Name | Date

WO ID: MSGP-58315 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 8/27/16 1151

Signature (conducting visual assessment): MSL Date and Time: 8/27/16 1651

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58316

MSGP Monitoring Stations
Printed 8/17/2016 - 2:27 PM

Maintenance Details

Requested: 8/17/2016 2:20:55 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/1/2016
Project: SIO Visuals 8-16-16 (P-MSGP-5099)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (014)
MSGP01401

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/13/16	1255 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/13/16	1255 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/17/16	1559		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.3 in. Aug 8/24/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	O1			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C3			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL1			
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor

Labor	Work Date	Reg Hrs	OT Hrs	Other Hrs

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name Date Signature / Name Date

Signature (collecting sample): MSH. Date and Time: 8/13/16 1255

Signature (conducting visual assessment): MSH. Date and Time: 8/17/16 1539

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58317

MSGP Monitoring Stations
Printed 8/17/2016 - 2:27 PM

Maintenance Details

Requested: 8/17/2016 2:20:56 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/1/2016
Project: SIO Visuals 8-16-16 (P-MSGP-5099)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (015)
MSGP01501

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/13/16	1310 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/13/16	1310 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/17/16	1604		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.3 in. since 8/13/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	O1			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C3			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
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.	SET3021				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☑
					☐	☐

Labor

Labor	Work Date	Reg Hrs	OT Hrs	Other Hrs

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name	Date	Signature / Name	Date

WO ID: MSGP-58317 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 8/13/16 1310

Signature (conducting visual assessment): MSL Date and Time: 8/17/16 1604

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58318

MSGP Monitoring Stations
Printed 8/17/2016 - 2:27 PM

Maintenance Details

Requested: 8/17/2016 2:20:56 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/1/2016
Project: SIO Visuals 8-16-16 (P-MSGP-5099)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (016)
MSGP01601

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/27/16	11:49		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/27/16 ~~8/29/16~~	1149 ~~1623~~		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/29/16	1623		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.85 in. AMG 9/6/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	O1			☑	☐	☑ MPS
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C2			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL			
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor

Labor	Work Date	Reg Hrs	OT Hrs	Other Hrs

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name Date Signature / Name Date

WO ID: MSGP.58318 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 8/27/16 11:49

Signature (conducting visual assessment): MSL Date and Time: 8/29/16 1623

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58319

MSGP Monitoring Stations
Printed 8/17/2016 - 2:27 PM

Maintenance Details

Requested: 8/17/2016 2:20:57 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/1/2016
Project: SIO Visuals 8-16-16 (P-MSGP-5099)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (017)
MSGP01701

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/13/16	1258		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/13/16	1258		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/17/16	1615		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.3 in. Aug 8 to 11 16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☐	☐	☑
150					☐	☐	☑

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.					
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SUSSOL2		☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☐	☐	☑
				☐	☐	☐

Labor

Labor	Work Date	Reg Hrs	OT Hrs	Other Hrs

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name	Date	Signature / Name	Date

WO ID: MSGP-58314 Page 3 of 3

Signature (collecting sample): MSLL Date and Time: 8/13/16 1258

Signature (conducting visual assessment): MSLL Date and Time: 8/17/16 1615

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58408

MSGP Monitoring Stations
Printed 8/23/2016 - 3:43 PM

Maintenance Details

Requested: 8/23/2016 3:43:53 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/9/2016
Project: SIO Visuals 8/23/16 (P-MSGP-5107)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (014)
MSGP01401

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/21/16	1925 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/21/16	1925 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/22/16	12:55		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.21 in. AWB 8/30/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	orange-brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C3			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☑
					☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name	Date	Signature / Name	Date

WO ID: W56P-68408 Page 3 of 3

Signature (collecting sample): _____ Date and Time: 8/21/16 1924

Signature (conducting visual assessment): _____ Date and Time: 8/22/16 12:55

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58409

MSGP Monitoring Stations
Printed 8/23/2016 - 3:43 PM

Maintenance Details

Requested: 8/23/2016 3:43:54 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/9/2016
Project: SIO Visuals 8/23/16 (P-MSGP-5107)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (015)
MSGP01501

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/21/16	1925 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/21/16	1925 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/22/16	12:59		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.21 in. Aug 8/23/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Light Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C2			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	fine				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.					☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)					☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)					☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)					☑

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name	Date	Signature / Name	Date

Signature (collecting sample): _____ Date and Time: 9/21/16 1925

Signature (conducting visual assessment): _____ Date and Time: 9/22/2016 12:59

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58410

MSGP Monitoring Stations
Printed 8/23/2016 - 3:43 PM

Maintenance Details

Requested: 8/23/2016 3:43:55 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/9/2016
Project: SIO Visuals 8/23/16 (P-MSGP-5107)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (017)
MSGP01701

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/21/16	1928 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/21/16	1928 approx		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/22/16	12:18		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.21 in. Aug 21 2016		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Musty			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☑ CS
150					☐	☐	☑

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.					
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	Very cs		☑ cs	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☐	☐	☑
				☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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_____ _____ _____ _____

Signature / Name | Date | Signature / Name | Date

WO ID: MSGP - 58910 Page 3 of 3

Signature (collecting sample): _____ Date and Time: 8/21/16 1928

Signature (conducting visual assessment): _____ Date and Time: 8/22/16 12:18

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58497

MSGP Monitoring Stations
Printed 8/31/2016 - 3:46 PM

Maintenance Details

Requested: 8/31/2016 2:35:57 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/22/2016
Project: SIO Visuals 8/31/16 (P-MSGP-5113)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (014)
MSGP01401

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/27/16	1140		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/27/16	1140		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/29/16	1649		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.85in	NAD 9/6/16	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	O1			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C3			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL1		☐	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SUSSOL2		☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☐	☐	☑
				☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name | Date | Signature / Name | Date

WO ID: MSGP-58197 Page 3 of 3

Signature (collecting sample): [signature] Date and Time: 8/27/16 1140

Signature (conducting visual assessment): [signature] Date and Time: 8/28/16 1649

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58498

MSGP Monitoring Stations
Printed 8/31/2016 - 3:46 PM

Maintenance Details

Requested: 8/31/2016 2:35:58 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/22/2016
Project: SIO Visuals 8/31/16 (P-MSGP-5113)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (015)
MSGP01501

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/27/16	1151	approx	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/27/16	1151	approx	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/29/16	1644		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	MP3	0.85in. AND 9/6/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	O1			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C3			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL2				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☐	☐	☑
				☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name Date Signature / Name Date

WO ID: MSGP-58498 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 8/27/16 1151

Signature (conducting visual assessment): MSL Date and Time: 8/29/16 1644

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58499

MSGP Monitoring Stations
Printed 8/31/2016 - 3:46 PM

Maintenance Details

Requested: 8/31/2016 2:35:58 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/22/2016
Project: SIO Visuals 8/31/16 (P-MSGP-5113)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (017)
MSGP01701

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/27/16	1234		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/27/16	1234		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/29/16	1621		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.85 in. Adj 9/6/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☑ MS
150					☐	☐	☑

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.					
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SuSSOL2		☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			☐	☐	☑
				☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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_____ _____ _____ _____

Signature / Name Date Signature / Name Date

WO ID: MSGP-58499 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 8/27/16 1234

Signature (conducting visual assessment): MSL Date and Time: 8/29/16 1621

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58509

MSGP Monitoring Stations
Printed 8/31/2016 - 3:42 PM

Maintenance Details

Requested: 8/31/2016 2:57:45 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/22/2016
Project: SIO Visuals 9/1/16 (P-MSGP-5114)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (014)
MSGP01401

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.		MP3		☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/24/16	13:10		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/24/16 ~~8/25/16~~	13:10 ~~1444~~		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/25/16	1441		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.35 in. ~~0.85 in.~~ AMB 9/6/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	light brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C3			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL2				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.					☒
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)					☒
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)					☒
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)					☒

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name	Date	Signature / Name	Date

WO ID: MSGP-58509 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 8/24/16 13:10

Signature (conducting visual assessment): MSL Date and Time: 8/25/16 1441

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58510

MSGP Monitoring Stations
Printed 8/31/2016 - 3:42 PM

Maintenance Details

Requested: 8/31/2016 2:57:47 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/22/2016
Project: SIO Visuals 9/1/16 (P-MSGP-5114)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (015)
MSGP01501

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/24/16	13:25 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/24/16 8/25/16	13:25 1444		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/25/16	1444		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR	0.35 in. ~~0.85 in.~~ AMS 9/6/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	01			☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C3			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOLZ				
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.	SUSSOLZ			☑	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☑
					☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name	Date	Signature / Name	Date

WO ID: MSGP-58510 Page 3 of 3

Signature (collecting sample): [signature] Date and Time: 8/24/16 13:35

Signature (conducting visual assessment): [signature] Date and Time: 8/25/16 14:44

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: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58511

MSGP Monitoring Stations
Printed 8/31/2016 - 3:42 PM

Maintenance Details

Requested: 8/31/2016 2:57:47 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/22/2016
Project: SIO Visuals 9/1/16 (P-MSGP-5114)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (017)
MSGP01701

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/24/16	13:49 approx		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/24/16	13:49		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/25/16	1455		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.35 in. ~~0.85 in.~~ MS 9/6/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☐	☐	☑

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☒
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☐	☒
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☐	☒
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☐	☐
					☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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_____ _____ _____ _____

Signature / Name Date Signature / Name Date

Signature (collecting sample): [signature] Date and Time: 8/24/16 1349

Signature (conducting visual assessment): [signature] Date and Time: 8/25/16 1455

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58520

MSGP Monitoring Stations
Printed 8/31/2016 - 3:40 PM

Maintenance Details

Requested: 8/31/2016 3:04:25 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/26/2016
Project: Visual Assessments 8/31/16 (P-MSGP-5115)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
MSGP01801

Contact:
Phone:

Reason: MSGP Quarterly Visual Assessment

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/27/16	10:12		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/27/16	10:12		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	8/27/16	16:14		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.85 in. Rec'd 9/6/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☐	☐	☑

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.						
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☐	☑
					☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

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

Report:

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Signature / Name Date Signature / Name Date

WO ID: MSGP-58620 Page 3 of 3

Signature (collecting sample): [signature] Date and Time: 8/27/16 10:12

Signature (conducting visual assessment): [signature] Date and Time: 8/29/16 1614

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58542

MSGP Monitoring Stations
Printed 9/8/2016 - 3:34 PM

Maintenance Details

Requested: 9/8/2016 3:34:48 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/29/2016
Project: SIO Visual Assessments 9-8-16 (P-MSGP-5120)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (013)
MSGP01301

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/6/16	1534		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/6/16	1536		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/7/16	1042		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1		0.45 in. Aug 9/8/16	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	CB			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL4	☐	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SUSSOL2	☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name	Date	Signature / Name	Date

WO ID: MSGP.58542 Page 3 of 3

Signature (collecting sample): MSH. Date and Time: 9/7/16 1042

Signature (conducting visual assessment): MSH. Date and Time: 9/7/16 1042

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58543

MSGP Monitoring Stations
Printed 9/8/2016 - 3:34 PM

Maintenance Details

Requested: 9/8/2016 3:34:49 PM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/29/2016
Project: SIO Visual Assessments 9-8-16 (P-MSGP-5120)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (016)
MSGP01601

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/6/16	1749		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/6/16	1749		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/7/16	1102		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.45 in. AKS 9/8/16		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☐	☐	☑

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.						
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☐	☑
					☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name	Date	Signature / Name	Date

WO ID: MSGP-58543 Page 3 of 3

Signature (collecting sample): [signature] Date and Time: 9/7/16 1102

Signature (conducting visual assessment): [signature] Date and Time: 9/7/16 1102

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58545

MSGP Monitoring Stations
Printed 9/9/2016 - 10:14 AM

Maintenance Details

Requested: 9/9/2016 10:12:17 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/25/2016
Project: SIO Visual Assessments 9-8-16 (P-MSGP-5120)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (014)
MSGP01401

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/6/16	1710		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/6/16	1710		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/7/16	1045		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.45in		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	C3			☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)				☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)				☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)				☐	☐	☑
					☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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Signature / Name	Date	Signature / Name	Date

WO ID: MSGP- 58595 Page 3 of 3

Signature (collecting sample): MPSLP. Date and Time: 9/7/16 1045

Signature (conducting visual assessment): MPSLP. Date and Time: 9/7/16 1045

CERTIFICATION STATEMENT

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

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

Print name and title:_____

Signature:_____ Date:_____

Los Alamos National Lab - ADESH

Work Order MSGP-58546

MSGP Monitoring Stations
Printed 9/9/2016 - 10:14 AM

Maintenance Details

Requested: 9/9/2016 10:12:22 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/25/2016
Project: SIO Visual Assessments 9-8-16 (P-MSGP-5120)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (015)
MSGP01501

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/6/16	1720		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/6/16	1720		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/7/16	1049		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.45,n		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.	Brown			☑	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		01		☑	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.		C3		☑	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.				☐	☐	☑
150					☑	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SETSOL				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.					☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)					☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)					☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)					☑

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

_____

_____

_____

_____

Signature / Name	Date	Signature / Name	Date

WO ID: MSGP-58596 Page 3 of 3

Signature (collecting sample): MSL Date and Time: 9/7/16 1049

Signature (conducting visual assessment): MSL Date and Time: 9/7/16 1049

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos National Lab - ADESH

Work Order MSGP-58547

MSGP Monitoring Stations
Printed 9/9/2016 - 10:14 AM

Maintenance Details

Requested: 9/9/2016 10:12:22 AM
Procedure: MSGP Quarterly Visual Assessment (EPC-CP-Form-1021.2)
Last PM: 8/25/2016
Project: SIO Visual Assessments 9-8-16 (P-MSGP-5120)

Target: 9/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (017)
MSGP01701

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.						
	Sample information						
30	Document the monitoring Period by using the Monitoring Period lookup table.	MP3			☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)				☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/6/16	17:19		☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/6/16	17:19		☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	9/7/16	10:59		☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.	PR1	0.45in		☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.				☐	☐	☑
	Parameters						
110	Is sample colorless? If "Failed", describe.				☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Veg			☑	☐	☐
150					☐	☐	☑

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.				
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.	SnSSOL 2	☑	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)		☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)		☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)		☐	☐	☑
			☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Shendo, Marwin	9/30/2016 / 14				

Labor Report

Completed: _____ **Failure:** _____

Report:

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_____

_____

_____

Signature / Name	Date	Signature / Name	Date

WO ID: MSGP-58547 Page 3 of 3

Signature (collecting sample): MSH Date and Time: 9/7/16 1059

Signature (conducting visual assessment): MSH Date and Time: 9/7/16 1059

CERTIFICATION STATEMENT

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

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

Print name and title: _____

Signature: _____ Date: _____

Los Alamos
NATIONAL LABORATORY
EST. 1943

memorandum

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

To/MS: Marc Gallegos, DESHF-STO, E509
Thru/MS: Terrill Lemke, EPC-CP, (E-File)
From/MS: Holly Wheeler, EPC-CP, (E-File)
Phone/Fax: 667-1312
Symbol: EPC-DO: 17-047

Date: JAN 1 9 2017

Subject: **National Pollutant Discharge Elimination System (NPDES) Permit No. NMR053195, Multi-Sector General Permit (MSGP) Quarterly Visual Assessment (QVA) Forms for October and November of 2016 for the TA-3-66 Sigma Complex**

Please find attached completed MSGP QVA Forms documenting visual assessments performed during the fourth quarter of monitoring at the TA-3-66 Sigma Complex. Pursuant to Parts 3.2.2 and 5.5 of the 2015 MSGP, this memorandum along with all of the attached QVA forms shall be incorporated into your MSGP Storm Water Pollution Prevention Plan (SWPPP).

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

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

The attached QVA forms document the following information as required by Part 3.2.2 of the 2015 MSGP.

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

The signed certification statement contained in this memorandum satisfies the duly authorized signatory requirement for the QVAs completed by EPC-CP representatives contained in Enclosure 1.

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

Anthony R. Grieggs, EPC-CP Group Leader
(Print name and title)
Los Alamos National Laboratory

Manager Signature

11/19/17
Date

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

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

TWL/HLW:am

Enclosure: 1. Quarterly Visual Assessment Forms Requiring a Certification Statement Signature, Fourth Quarter, 2016 Monitoring Year

Facility Name	Sampling Station	Work Order #
TA-3-66 Sigma Complex	MSGP01901	MSGP-57764
TA-3-66 Sigma Complex	MSGP01301	MSGP-58612
TA-3-66 Sigma Complex	MSGP01401	MSGP-58613
TA-3-66 Sigma Complex	MSGP01501	MSGP-58614
TA-3-66 Sigma Complex	MSGP01601	MSGP-58615
TA-3-66 Sigma Complex	MSGP01701	MSGP-58616
TA-3-66 Sigma Complex	MSGP01801	MSGP-59294
TA-3-66 Sigma Complex	MSGP01401	MSGP-59357
TA-3-66 Sigma Complex	MSGP01501	MSGP-59358
TA-3-66 Sigma Complex	MSGP01701	MSGP-59359

Copy: Garry Schramm, DESHF-STO, (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)
Holly Wheeler, EPC-CP, (E-File)

ENCLOSURE 1

Quarterly Visual Assessment Forms Requiring a Certification Statement Signature

Fourth Quarter, 2016 Monitoring Year

EPC-DO: 17-047

Date: JAN 19 2017

Los Alamos National Lab - ADESH

Work Order MSGP-57764

MSGP Monitoring Stations
Printed 1/12/2017 - 11:56 AM (Duplicate Copy)

Maintenance Details

Requested: 8/8/2016 12:28:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 8/9/2016
Project: SIO Visual Assess. Oct-Nov 2016 (P-MSGP-5138)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (019)
MSGP01901

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Precipitation Type: PR1
Odor: NA
Clarity: C2
Settled Solids: NA
Suspended Solids: NA
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/5/19 at 21:25	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/5/16 at 21:25	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/7/16 at 16:20	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		.7 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		brown	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.			MS	☐	☐	☑
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If			MS	☐	☐	☑

	"other" is chosen from the lookup table, provide description in comments of this line.						
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/7/2016 4:20:00 PM **Failure:**

Report:

Signature / Name	Date	Signature / Name	Date
	11/14/2016		

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

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

CERTIFICATION STATEMENT

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

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

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

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-58612

MSGP Monitoring Stations
Printed 1/12/2017 - 12:00 PM (Duplicate Copy)

Maintenance Details

Requested: 9/12/2016 11:52:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 9/22/2016
Project: SIO Visual Assess. Oct-Nov 2016 (P-MSGP-5138)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (013)
MSGP01301

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Precipitation Type: PR1
Odor: NA
Clarity: C1
Settled Solids: NA
Suspended Solids: SUSSOL2
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/5/16 at 21:21	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/5/16 at 21:21	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/09/16 at 13:33	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		.7 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		light brown	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		Vegetation	MS	☒	☐	☐

150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/9/2016 1:33:00 PM **Failure:**

Report:

Signature / Name	Date	Signature / Name	Date
MPSH.	11/14/2016		

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

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

CERTIFICATION STATEMENT

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

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

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

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-58613

MSGP Monitoring Stations
Printed 1/12/2017 - 12:02 PM (Duplicate Copy)

Maintenance Details

Requested: 9/12/2016 11:52:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 9/22/2016
Project: SIO Visual Assess. Oct-Nov 2016 (P-MSGP-5138)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (014)
MSGP01401

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Precipitation Type: PR1
Odor: O1
Clarity: C3
Settled Solids: SETSOL2
Suspended Solids: NA
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/5/16 at 21:10	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/5/16 at 21:10	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/09/16 at 15:29	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		.7 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		Brown	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.			MS	☐	☐	☑
150				MS	☒	☐	☐

	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.						
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/9/2016 3:29:00 PM **Failure:**

Report:

[signature]	11/14/2016		
Signature / Name	Date	Signature / Name	Date

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

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

CERTIFICATION STATEMENT

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

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

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

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-58614

MSGP Monitoring Stations
Printed 1/12/2017 - 12:11 PM

Maintenance Details

Requested: 9/12/2016 11:52:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 9/22/2016
Project: SIO Visual Assess. Oct-Nov 2016 (P-MSGP-5138)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (015)
MSGP01501

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Precipitation Type: PR1
Odor: O1
Clarity: C3
Settled Solids: SETSOL1
Suspended Solids: SUSSOL2
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/5/16 at 21:10	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/5/16 at 21:10	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/9/16 at 15:25	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		.7 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		brown	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		Vegetation	MS	☒	☐	☐

150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/9/2016 3:25:00 PM **Failure:**

Report:

Signature / Name	Date	Signature / Name	Date
MSL	11/14/2016		

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

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

CERTIFICATION STATEMENT

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

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

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

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-58615

MSGP Monitoring Stations
Printed 1/12/2017 - 12:15 PM

Maintenance Details

Requested: 9/12/2016 11:52:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 9/22/2016
Project: SIO Visual Assess. Oct-Nov 2016 (P-MSGP-5138)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (016)
MSGP01601

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Precipitation Type: PR1
Odor: NA
Clarity: NA
Settled Solids: NA
Suspended Solids: SUSSOL2
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/5/16 at 21:17	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/5/16 at 21:17	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/7/16 at 16:12	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		.7 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.			MS	☐	☐	☑
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		vegetation	MS	☒	☐	☐

150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/7/2016 4:12:00 PM **Failure:**

Report:

Signature / Name	Date	Signature / Name	Date
MPSH	11/14/2016		

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

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

CERTIFICATION STATEMENT

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

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

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

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-58616

MSGP Monitoring Stations
Printed 1/12/2017 - 12:16 PM

Maintenance Details

Requested: 9/12/2016 11:52:00 AM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 9/22/2016
Project: SIO Visual Assess. Oct-Nov 2016 (P-MSGP-5138)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (017)
MSGP01701

Reason: MSGP Quarterly Visual Assessment

Contact:
Phone:

Precipitation Type: PR1
Odor: O1
Clarity: C3
Settled Solids: SETSOL1
Suspended Solids: SUSSOL2
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/5/16 at 21:04	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/5/16 at 21:04	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/7/16 at 16:13	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		.7 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		brown	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		vegetation	MS	☒	☐	☐

150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/7/2016 4:13:00 PM **Failure:**

Report:

Signature / Name	Date	Signature / Name	Date
MSLO	11/14/2016		

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

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

CERTIFICATION STATEMENT

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

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

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

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-59294

MSGP Monitoring Stations
Printed 1/12/2017 - 12:18 PM

Maintenance Details

Requested By: Dale, Leslie on 11/18/2016 12:40:00 PM
Taken By: Dale, Leslie
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 11/18/2016
Project: ISCO Visual Assess. Oct-Nov 2016 (P-MSGP-5135)

Target: 11/18/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
MSGP01801

Contact: Dale, Leslie
Phone:

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Precipitation Type: PR1
Odor: O1
Clarity: C1
Settled Solids: NA
Suspended Solids: SUSSOL2
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/4/16 at 15:25	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/4/16 at 15:25	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/18/16 at 10:12 am	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		.71 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		light brown	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen			MS	☒	☐	☐

	from the lookup table, provide description in comments of this line.						
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		Vegetation	MS	☒	☐	☐
150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☐	☐	☑
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/18/2016 10:12:00 AM **Failure:** _____ **Meter(s):** 2

Report: _____

Signature / Name	Date	Signature / Name	Date
MPSLP	11/18/2016		

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

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

CERTIFICATION STATEMENT

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

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

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

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-59357

MSGP Monitoring Stations
Printed 1/12/2017 - 11:50 AM

Maintenance Details

Requested: 11/22/2016 4:44:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 11/22/2016
Project: SIO Visual Assess. Oct-Nov 2016 (P-MSGP-5138)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (014)
MSGP01401

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Contact:
Phone:

Precipitation Type: PR1
Odor: O1
Clarity: C2
Settled Solids: SETSOL1
Suspended Solids: SUSSOL2
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/21/16 at 16:25	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/21/16 at 16:25	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/22/16 at 10:55 am	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		.44 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		Brown	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		Vegetation	MS	☒	☐	☐

150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/22/2016 10:55:00 AM **Failure:**

Report:

Signature / Name	Date	Signature / Name	Date
	11/30/2016		

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

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

CERTIFICATION STATEMENT

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

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

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

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-59358

MSGP Monitoring Stations
Printed 1/12/2017 - 12:14 PM

Maintenance Details

Requested: 11/22/2016 4:44:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 11/22/2016
Project: SIO Visual Assess. Oct-Nov 2016 (P-MSGP-5138)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (015)
MSGP01501

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Contact:
Phone:

Precipitation Type: PR1
Odor: O1
Clarity: C2
Settled Solids: SETSOL1
Suspended Solids: SUSSOL2
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/21/16 at 16:25	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/21/16 at 16:25	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/22/16 at 10:58 am	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		.44 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		brown	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		vegetation	MS	☒	☐	☐

150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/22/2016 10:58:00 AM **Failure:**

Report:

Signature / Name	Date	Signature / Name	Date
MSLQ	11/30/2016		

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

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

CERTIFICATION STATEMENT

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

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

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

Signature: (See signature on file) Date:

Los Alamos National Lab - ADESH

Work Order MSGP-59359

MSGP Monitoring Stations
Printed 1/12/2017 - 12:17 PM

Maintenance Details

Requested: 11/22/2016 4:44:00 PM
Procedure: MSGP Quarterly Visual Assessment (EPC Sig) (EPC-CP-Form-1021.2 A)
Last PM: 11/22/2016
Project: SIO Visual Assess. Oct-Nov 2016 (P-MSGP-5138)

Target: 11/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex
Monitored Outfall (018)
Substantially Identical Outfall (017)
MSGP01701

Reason: MSGP Quarterly Visual Assessment (EPC Sig)

Contact:
Phone:

Precipitation Type: PR1
Odor: O1
Clarity: C1
Settled Solids: SETSOL1
Suspended Solids: SUSSOL2
Special Instructions: NMR053195

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.							
Sample information							
30	Document the monitoring Period by using the Monitoring Period lookup table.			MS	☐	☐	☑
35	Is visual assessment performed on an unfiltered sample? (Use filtered only if unfiltered unavailable.)			MS	☐	☐	☑
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/21/16 at 16:25	MS	☐	☐	☑
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/21/16 at 16:25	MS	☐	☐	☑
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		11/22/16 at 10:47 am	MS	☐	☐	☑
70	Document the nature of discharge using the Precipitation Type lookup table. Document the amount (in) in the "Reading" field of this line.		.44 inches	MS	☐	☐	☑
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide reason in comments of this line.			MS	☐	☐	☑
Parameters							
110	Is sample colorless? If "Failed", describe.		brown	MS	☒	☐	☐
120	Is sample oderless? If "Failed", document observation using the Odor lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
130	Is sample clear? If "Failed", document observation using the Clarity lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		vegetation	MS	☒	☐	☐

150	Is sample free of settled solids? If "Failed", document observation using the Settled Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
160	Is sample free of suspended solids? If "Failed", document observation using the Suspended Solids lookup table. If "other" is chosen from the lookup table, provide description in comments of this line.			MS	☒	☐	☐
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location ('on the surface' or 'in the sample') in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs) in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑
190	Is sample free of other obvious indicators of pollution? If "Failed", describe in the comments of this line. (Range: 0 - 0)			MS	☐	☐	☑

Labor Report

Completed: 11/22/2016 10:47:00 AM **Failure:**

Report:

Signature / Name	Date	Signature / Name	Date
APSLP	11/29/2016		

WO ID:_____ Page____ of____

Date:_____ Time:_____

Name/Z#:_____

Signature (collecting sample & conducting visual assessment):_____

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

CERTIFICATION STATEMENT

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

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

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

Signature: (See signature on file) Date:

Los Alamos
NATIONAL LABORATORY
EST. 1943

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

Date: JUL 0 1 2016
Symbol: EPC-DO-16-180
LA-UR: 16-24542
Locates Action No.: N/A

U.S. EPA Region 6
NPDES Stormwater Program (WQ-PP)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

To whom it may concern:

Subject: National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR053195, Multi-Sector General Permit (MSGP) Industrial Discharge Monitoring Reports (MDMRs) For April 15, 18 and 19, 2016 and a "No Discharge" Report For April 1 through May 31, 2016

Enclosed are Los Alamos National Laboratory's MDMRs (Enclosure 1) for April 15, 18 and 19, 2016, and a "no discharge" MDMR for the end of the first quarter of monitoring (April 1, 2016 through May 31, 2016) as required under MSGP Permit Tracking No. NMR053195, submitted on behalf of Los Alamos National Security LLC. These MDMRs contain analytical results for impaired water and quarterly benchmark monitoring at outfalls 018, 026, 029, 004, 032, 002, and 009.

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

Sincerely,

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

ARG:TWL:HLW/ms

Enclosure: 1. NPDES Permit Tracking No. NMR053195, MDMRs for April 15, 18 and 19, 2016 and a "No Discharge" Report for April 1 through May 31, 2016

Cy: Everett Spencer, EPA Region 6, Dallas TX (E-File)
Helen Nguyen, EPA Region 6, Dallas TX (E-File)
Craig S. Leasure, PADOPS, (E-File)
William R. Mairson, PADOPS, (E-File)
Michael T. Brandt, ADESH, (E-File)
Raeanna Sharp-Geiger, ADESH, (E-File)
John P. McCann, EPC-DO, (E-File)
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

ENCLOSURE 1

NPDES Permit Tracking No. NMR053195,
MDMRs for April 15, 18 and 19, 2016
and a "No Discharge" Report for
April 1 through May 31, 2016

EPC-DO-16-180

LA-UR-16-24542

Date: JUL 0 1 2016

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

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

Waiver granted:

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

[X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

[X] Submitting monitoring data (Fill in all Sections).

[ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).

[ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).

[ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).

[ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

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

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

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

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period:

[X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[X] Quarter 1: From	04 / 01	To 05 / 31
[ ] Quarter 2 (April 1 – June 30)	[ ] Quarter 2: From	06 / 01	To 07 / 31
[ ] Quarter 3 (July 1 – September 30)	[ ] Quarter 3: From	08 / 01	To 09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01	To 11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 2 2.b. Rainfall amount (inches): 0.2 2.c. Time since previous measurable storm event (days): 152

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?
018	[ ] Substantially identical to outfall:	[ ]	I	Aluminum, total recoverable	183	ug/L		04/15/2016	[ ]	[ ]
018	[ ] Substantially identical to outfall:	[ ]	QBM	Aluminum, total recoverable	183	ug/L		04/15/2016	[ ]	[ ]
018	[ ] Substantially identical to outfall:	[ ]	QBM	Iron, total	784	ug/L		04/15/2016	[ ]	[ ]
013	[X] Substantially identical to outfall: 018	[X]							[ ]	[ ]
014	[X] Substantially identical to outfall: 018	[ ]							[ ]	[ ]
015	[X] Substantially identical to outfall: 018	[ ]							[ ]	[ ]
016	[X] Substantially identical to outfall: 018	[X]							[ ]	[ ]
017	[X] Substantially identical to outfall: 018	[X]							[ ]	[ ]

019	[X] Substantially identical to outfall: 018	[X]							☐	☐

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 1.58 hours. Rainfall amount = 0.24 inches.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 2 2.b. Rainfall amount (inches): 0.2 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?
026	[ ] Substantially identical to outfall:	[ ]	I	Copper, dissolved	22.6	ug/L		04/15/2016	[ ]	[ ]
026	[ ] Substantially identical to outfall:	[ ]	I	Thallium, dissolved	ND		0.450 ug/L	04/15/2016	[ ]	[ ]
027	[X] Substantially identical to outfall: 026	[ ]							[ ]	[ ]
028	[X] Substantially identical to outfall: 026	[ ]							[ ]	[ ]

* (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 = 1.58 hours. Rainfall amount = 0.24 inches.

026: The impaired water pollutant dissolved Copper exceeds the New Mexico water quality standard. The impaired water pollutant dissolved Thallium was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for dissolved Thallium will be discontinued per Part 6.2.4.1.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 2 2.b. Rainfall amount (inches): 0.2 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?
029	[ ] Substantially identical to outfall:	[ ]	I	Copper, dissolved	34.4	ug/L		04/15/2016	[ ]	[ ]
029	[ ] Substantially identical to outfall:	[ ]	QBM	Copper, dissolved	34.4	ug/L		04/15/2016	[ ]	[ ]
029	[ ] Substantially identical to outfall:	[ ]	QBM	Lead, dissolved	BQL		2.00 ug/L	04/15/2016	[ ]	[ ]
029	[ ] Substantially identical to outfall:	[ ]	I	Thallium, dissolved	ND		0.450 ug/L	04/15/2016	[ ]	[ ]
029	[ ] Substantially identical to outfall:	[ ]	QBM	Zinc, dissolved	1530	ug/L		04/15/2016	[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 1.58 hours. Rainfall amount = 0.24 inches.

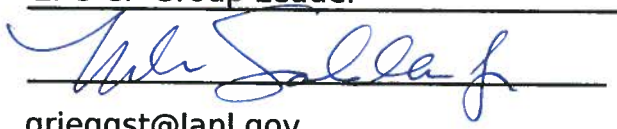
029: The impaired water pollutant dissolved Copper exceeds the New Mexico water quality standard. The average concentration of dissolved Copper is mathematically certain to exceed the benchmark value. The impaired water pollutant dissolved Thallium was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for dissolved Thallium will be discontinued per Part 6.2.4.1. The average concentration of dissolved Zinc is mathematically certain to exceed the benchmark value.

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 07/01/2016

E-mail: grieggst@lanl.gov

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

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

Waiver granted:
- [ ] The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.
- [X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

- [X] Submitting monitoring data (Fill in all Sections).
- [ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).
- [ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).
- [ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).
- [ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

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

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

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

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[X] Quarter 1: From	04	/	01	To	05	/	31
[ ] Quarter 2 (April 1 – June 30)	[ ] Quarter 2: From	06	/	01	To	07	/	31
[ ] Quarter 3 (July 1 – September 30)	[ ] Quarter 3: From	08	/	01	To	09	/	30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10	/	01	To	11	/	30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: ☐ 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	☐ Substantially identical to outfall:	☐	I	Adjusted Gross Alpha	3.19	pCi/L		04/18/2016	☐	☐
004	☐ Substantially identical to outfall:	☐	I	Aluminum, total recoverable	9060	ug/L		04/18/2016	☐	☐
004	☐ Substantially identical to outfall:	☐	QBM	Aluminum, total recoverable	9060	ug/L		04/18/2016	☐	☐
004	☐ Substantially identical to outfall:	☐	I	Aroclor, total	BQL		0.103 ug/L	04/18/2016	☐	☐
004	☐ Substantially identical to outfall:	☐	QBM	Iron, total	1590	ug/L		04/18/2016	☐	☐
004	☐ Substantially identical to outfall:	☐	QBM	Nitrate plus Nitrite Nitrogen	0.163	mg/L		04/18/2016	☐	☐

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

004: The impaired water pollutant total recoverable Aluminum exceeds the New Mexico water quality standard. The average concentration of total recoverable Aluminum is mathematically certain to exceed the benchmark value.

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?
018	☐ Substantially identical to outfall:	☐	I	Copper, dissolved	4.7	ug/L		04/18/2016	☐	☐
018	☐ Substantially identical to outfall:	☐	QBM	Copper, dissolved	4.7	ug/L		04/18/2016	☐	☐
018	☐ Substantially identical to outfall:	☐	I	Thallium, dissolved	ND		0.450 ug/L	04/18/2016	☐	☐
018	☐ Substantially identical to outfall:	☐	QBM	Zinc, dissolved	2230	ug/L		04/18/2016	☐	☐
013	☒ Substantially identical to outfall: 018	☐							☐	☐
014	☒ Substantially identical to outfall: 018	☐							☐	☐
015	☒ Substantially identical to outfall: 018	☐							☐	☐
016	☒ Substantially identical to outfall: 018	☐							☐	☐

017	[X] Substantially identical to outfall: 018	☐							☐	☐
019	[X] Substantially identical to outfall: 018	☐							☐	☐

* (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)

018: The impaired water pollutant dissolved Thallium was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for dissolved Thallium will be discontinued per Part 6.2.4.1. The average concentration of dissolved Zinc is mathematically certain to exceed the benchmark value.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: ☐ Rainfall (Complete line items 2.a., 2.b., & 2.c.) ☒ Snowmelt

2.a. Duration of the rainfall event (hours): 2.b. Rainfall amount (inches): 2.c. Time since previous measurable storm event (days):

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
032	☐ Substantially identical to outfall:	☐	I	Copper, dissolved	3.72	ug/L		04/18/2016	☐	☐
032	☐ Substantially identical to outfall:	☐	I	Thallium, dissolved	ND		0.450 ug/L	04/18/2016	☐	☐
033	☒ Substantially identical to outfall: 032	☐							☐	☐
034	☒ Substantially identical to outfall: 032	☐							☐	☐
035	☒ Substantially identical to outfall: 032	☐							☐	☐

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

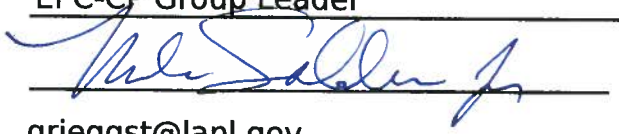
032: The impaired water pollutant dissolved Thallium was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for dissolved Thallium will be discontinued per Part 6.2.4.1.

G. Certification

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

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature:  Date 07/01/2016

E-mail: grieggst@lanl.gov

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

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

Waiver granted:

- [ ] The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.
- [X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

- [X] Submitting monitoring data (Fill in all Sections).
- [ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).
- [ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).
- [ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).
- [ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

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

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

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

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[X] Quarter 1: From	04 / 01	To	05 / 31
[ ] Quarter 2 (April 1 – June 30)	[ ] Quarter 2: From	06 / 01	To	07 / 31
[ ] Quarter 3 (July 1 – September 30)	[ ] Quarter 3: From	08 / 01	To	09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01	To	11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: ☐ Rainfall (Complete line items 2.a., 2.b., & 2.c.) ☒ Snowmelt

2.a. Duration of the rainfall event (hours): 2.b. Rainfall amount (inches): 2.c. Time since previous measurable storm event (days):

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
002	☐ Substantially identical to outfall:	☐	I	Adjusted Gross Alpha	4.35	pCi/L		04/19/2016	☐	☐
002	☐ Substantially identical to outfall:	☐	I	Aluminum, total recoverable	643	ug/L		04/19/2016	☐	☐
002	☐ Substantially identical to outfall:	☐	QBM	Aluminum, total recoverable	643	ug/L		04/19/2016	☐	☐
002	☐ Substantially identical to outfall:	☐	I	Aroclor, total	ND		0.107 ug/L	04/19/2016	☐	☐
002	☐ Substantially identical to outfall:	☐	I	Copper, dissolved	7.35	ug/L		04/19/2016	☐	☐
002	☐ Substantially identical to outfall:	☐	QBM	Iron, total	2270	ug/L		04/19/2016	☐	☐
002	☐ Substantially identical to outfall:	☐	QBM	Nitrate plus Nitrite Nitrogen	0.188	mg/L		04/19/2016	☐	☐
002	☐ Substantially identical to outfall:	☐	I	Thallium, dissolved	ND		0.450 ug/L	04/19/2016	☐	☐

002	☐ Substantially identical to outfall:	☐	QBM	Zinc, dissolved	32	ug/L		04/19/2016	☐	☐

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

002: The impaired water pollutant total Aroclors was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for total Aroclors will be discontinued per Part 6.2.4.1. The impaired water pollutant dissolved Copper exceeds the New Mexico water quality standard. The impaired water pollutant dissolved Thallium was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for dissolved Thallium will be discontinued per Part 6.2.4.1.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: ☐ 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?
009	☐ Substantially identical to outfall:	☐	I	Copper, dissolved	9.01	ug/L		04/19/2016	☐	☐
009	☐ Substantially identical to outfall:	☐	I	Thallium, dissolved	BQL		2.00 ug/L	04/19/2016	☐	☐
007	☒ Substantially identical to outfall: 009	☐							☐	☐
008	☒ Substantially identical to outfall: 009	☒							☐	☐
010	☒ Substantially identical to outfall: 009	☐							☐	☐

* (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)

009: The impaired water pollutant dissolved Copper exceeds the New Mexico water quality standard. The impaired water pollutant dissolved Thallium exceeds the New Mexico water quality standard.

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?
026	☐ Substantially identical to outfall:	☐	I	Adjusted Gross Alpha	ND			04/19/2016	☐	☐
026	☐ Substantially identical to outfall:	☐	I	Aluminum, total recoverable	1500	ug/L		04/19/2016	☐	☐
026	☐ Substantially identical to outfall:	☐	I	Aroclor, total	ND		0.0351 ug/L	04/19/2016	☐	☐
027	☒ Substantially identical to outfall: 026	☐							☐	☐
028	☒ Substantially identical to outfall: 026	☐							☐	☐

* (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)

026: The impaired water pollutant Adjusted Gross Alpha was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for Adjusted Gross Alpha will be discontinued per Part 6.2.4.1. The impaired water pollutant total recoverable Aluminum exceeds the New Mexico water quality standard. The impaired water pollutant total Aroclors was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for total Aroclors will be discontinued per Part 6.2.4.1.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: ☐ 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?
029	☐ Substantially identical to outfall:	☐	I	Adjusted Gross Alpha	2.51	pCi/L		04/19/2016	☐	☐
029	☐ Substantially identical to outfall:	☐	I	Aluminum, total recoverable	954	ug/L		04/19/2016	☐	☐
029	☐ Substantially identical to outfall:	☐	QBM	Aluminum, total recoverable	954	ug/L		04/19/2016	☐	☐
029	☐ Substantially identical to outfall:	☐	QBM	Chemical Oxygen Demand (COD)	BQL		20.0 mg/L	04/19/2016	☐	☐
029	☐ Substantially identical to outfall:	☐	QBM	Iron, total	786	ug/L		04/19/2016	☐	☐
029	☐ Substantially identical to outfall:	☐	QBM	Total Suspended Solids (TSS)	36.8	mg/L		04/19/2016	☐	☐

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

029: The impaired water pollutant total recoverable Aluminum exceeds the New Mexico water quality standard.

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 07/01/2016

E-mail: grieggst@lanl.gov

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

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

Waiver granted:
- [ ] The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.
- [X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

- [ ] Submitting monitoring data (Fill in all Sections).
- [X] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).
- [ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).
- [ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).
- [ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

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

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

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

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[X] Quarter 1: From	04 / 01	To 05 / 31
[ ] Quarter 2 (April 1 – June 30)	[ ] Quarter 2: From	06 / 01	To 07 / 31
[ ] Quarter 3 (July 1 – September 30)	[ ] Quarter 3: From	08 / 01	To 09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01	To 11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: ☐ Rainfall (Complete line items 2.a., 2.b., & 2.c.) ☐ Snowmelt

2.a. Duration of the rainfall event (hours): 2.b. Rainfall amount (inches): 2.c. Time since previous measurable storm event (days):

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
012	☐ Substantially identical to outfall:	☒							☐	☐
011	☒ Substantially identical to outfall: 012	☐							☐	☐

* (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

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?
020	☐ Substantially identical to outfall:	☒							☐	☐

* (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

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?
031	☐ Substantially identical to outfall:	☒							☐	☐
030	☒ Substantially identical to outfall: 031	☐							☐	☐

* (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: C

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	☐ Substantially identical to outfall:	☒							☐	☐
037	☒ Substantially identical to outfall: 036	☒							☐	☐

* (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

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?
039	☐ Substantially identical to outfall:	☒							☐	☐
038	☒ Substantially identical to outfall: 039	☒							☐	☐
040	☒ Substantially identical to outfall: 039	☒							☐	☐

* (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

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?
042	☐ Substantially identical to outfall:	☒							☐	☐
041	☒ Substantially identical to outfall: 042	☐							☐	☐

* (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)

042: NODI: C

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?
043	☐ Substantially identical to outfall:	☒							☐	☐

* (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

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?
051	☐ Substantially identical to outfall:	☒							☐	☐
052	☒ Substantially identical to outfall: 051	☐							☐	☐

* (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)

051: NODI: C

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	☐ Substantially identical to outfall:	☒							☐	☐
065	☒ Substantially identical to outfall: 053	☐							☐	☐
066	☒ Substantially identical to outfall: 053	☐							☐	☐

* (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

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?
072	☐ Substantially identical to outfall:	☒							☐	☐
070	☒ Substantially identical to outfall: 072	☐							☐	☐
071	☒ Substantially identical to outfall: 072	☐							☐	☐

* (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)

072: NODI: C

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?
075	☐ Substantially identical to outfall:	☒							☐	☐

* (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

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 07/01/2016

E-mail: grieggst@lanl.gov

Los Alamos
NATIONAL LABORATORY
EST. 1943

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

Date: AUG 2 5 2016
Symbol: EPC-DO-16-247
LA-UR: 16-26488
Locates Action No.: N/A

U.S. EPA Region 6
NPDES Stormwater Program (WQ-PP)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

To whom it may concern:

Subject: **National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR053195, Multi-Sector General Permit (MSGP) Industrial Discharge Monitoring Reports (MDMRs) for June 23, and July 01, 2016 and a "No Discharge" MDMR for the Second Quarter (June 1 – July 31, 2016)**

Enclosed are Los Alamos National Laboratory's MDMRs (Enclosure 1) for June 23, and July 01, 2016 and a "No Discharge" MDMR for the second quarter of monitoring (June 1 through July 31), 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 quarterly benchmark and impaired water monitoring at outfalls 069, 004, 005, 020, 029, 047, 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,

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

ARG:TWL:HLW/lm

Enclosure: 1. NPDES Permit Tracking No. NMR053195, MDMRs for June 23, and July 01, 2016 and a "No Discharge" MDMR for the Second Quarter (June 1 – July 31, 2016)

Cy: Everett Spencer, EPA Region 6, Dallas TX (E-File)
Helen Nguyen, EPA Region 6, Dallas TX (E-File)
Michelle Hunter, NMED/GWQB, Santa Fe, NM (E-File)
Shelly Lemon, NMED/SWQB, Santa Fe, NM (E-File)
Craig S. Leasure, PADOPS, (E-File)
William R. Mairson, PADOPS, (E-File)
Michael T. Brandt, ADESH, (E-File)
Raeanna Sharp-Geiger, ADESH, (E-File)
Karen E. Armijo, NA-LA, (E-File)
Terrill W. Lemke, EPC-CP, (E-File)
Holly L. Wheeler, EPC-CP, (E-File)
Leslie J. Dale, EPC-CP, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov

ENCLOSURE 1

NPDES Permit Tracking No. NMR053195, MDMRs for June 23, and July 01, 2016 and a "No Discharge" MDMR for the Second Quarter (June 1 – July 31, 2016)

EPC-DO-16-247

LA-UR-16-26488

Date: AUG 2 5 2016

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

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

Waiver granted:

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

[X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

[X] Submitting monitoring data (Fill in all Sections).

[ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).

[ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).

[ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).

[ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

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

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

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

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[ ] Quarter 1: From	04 / 01	To 05 / 31
[ ] Quarter 2 (April 1 – June 30)	[X] Quarter 2: From	06 / 01	To 07 / 31
[ ] Quarter 3 (July 1 – September 30)	[ ] Quarter 3: From	08 / 01	To 09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01	To 11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.1 2.c. Time since previous measurable storm event (days): 35

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
069	[ ] Substantially identical to outfall:	[ ]	QBM	Ammonia, total	1.58	mg/L		06/23/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Arsenic, dissolved	ND		1.70 ug/L	06/23/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Cadmium, dissolved	BQL		1.00 ug/L	06/23/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Chemical Oxygen Demand (COD)	227	mg/L		06/23/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Cyanide, total	BQL		0.005 mg/L	06/23/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Lead, dissolved	2.03	ug/L		06/23/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Magnesium, total	2.16	mg/L		06/23/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Mercury, total	ND		0.067 ug/L	06/23/2016	[ ]	[ ]

069	☐ Substantially identical to outfall:	☐	QBM	Selenium, total	ND		1.50 ug/L	06/23/2016	☐	☐
069	☐ Substantially identical to outfall:	☐	QBM	Silver, dissolved	ND		0.200 ug/L	06/23/2016	☐	☐
059	☒ Substantially identical to outfall: 069	☒							☐	☐
058	☒ Substantially identical to outfall: 069	☒							☐	☐
057	☒ Substantially identical to outfall: 069	☒							☐	☐
056	☒ Substantially identical to outfall: 069	☒							☐	☐
055	☒ Substantially identical to outfall: 069	☒							☐	☐
054	☒ Substantially identical to outfall: 069	☒							☐	☐
067	☒ Substantially identical to outfall: 069	☒							☐	☐
068	☒ Substantially identical to outfall: 069	☒							☐	☐

060	[X] Substantially identical to outfall: 069	[X]							☐	☐
061	[X] Substantially identical to outfall: 069	[X]							☐	☐
062	[X] Substantially identical to outfall: 069	[X]							☐	☐
063	[X] Substantially identical to outfall: 069	[X]							☐	☐
064	[X] Substantially identical to outfall: 069	[X]							☐	☐

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.75 hours. Rainfall amount = 0.09 inches.

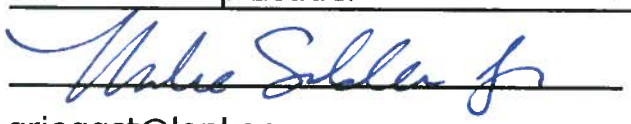
069: The average concentration of total Magnesium is mathematically certain to exceed the benchmark value.

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 08/25/2016

E-mail: grieggst@lanl.gov

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

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

Waiver granted:
- [ ] The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.
- [X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

- [X] Submitting monitoring data (Fill in all Sections).
- [ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).
- [ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).
- [ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).
- [ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

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

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

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

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[ ] Quarter 1: From	04 / 01	To 05 / 31
[ ] Quarter 2 (April 1 – June 30)	[X] Quarter 2: From	06 / 01	To 07 / 31
[ ] Quarter 3 (July 1 – September 30)	[ ] Quarter 3: From	08 / 01	To 09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01	To 11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.3 2.c. Time since previous measurable storm event (days): 2

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
004	[ ] Substantially identical to outfall:	[ ]	QBM	Zinc, dissolved	BQL		10.0 ug/L	07/01/2016	[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.58 hours. Rainfall amount = 0.28 inches.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.3 2.c. Time since previous measurable storm event (days): 27

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
005	[ ] Substantially identical to outfall:	[ ]	I	Adjusted Gross Alpha	86.1	pCi/L		07/01/2016	[ ]	[ ]
005	[ ] Substantially identical to outfall:	[ ]	I	Aluminum, total recoverable	2140	ug/L		07/01/2016	[ ]	[ ]
005	[ ] Substantially identical to outfall:	[ ]	I	Aroclor, total	ND		0.0351 ug/L	07/01/2016	[ ]	[ ]
005	[ ] Substantially identical to outfall:	[ ]	QBM	Iron, total	9980	ug/L		07/01/2016	[ ]	[ ]
006	[X] Substantially identical to outfall: 005	[X]							[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.58 hours. Rainfall amount = 0.28 inches.

005: The impaired water pollutant Adjusted Gross Alpha exceeds the New Mexico water quality standard. The impaired water pollutant total recoverable Aluminum exceeds the New Mexico water quality standard. The impaired water pollutant total Aroclors was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for total Aroclors will be discontinued per Part 6.2.4.1. The average concentration of total Iron is mathematically certain to exceed the benchmark value.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.3 2.c. Time since previous measurable storm event (days): 61

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	[ ] Substantially identical to outfall:	[ ]	I	Adjusted Gross Alpha	ND		0.00 pCi/L *	07/01/2016	[ ]	[ ]
020	[ ] Substantially identical to outfall:	[ ]	QBM	Aluminum, total recoverable	BQL		50.0 ug/L	07/01/2016	[ ]	[ ]
020	[ ] Substantially identical to outfall:	[ ]	I	Aluminum, total recoverable	BQL		50.0 ug/L	07/01/2016	[ ]	[ ]
020	[ ] Substantially identical to outfall:	[ ]	I	Aroclor, total	ND		0.0358 ug/L	07/01/2016	[ ]	[ ]
020	[ ] Substantially identical to outfall:	[ ]	QBM	Copper, dissolved	5.88	ug/L		07/01/2016	[ ]	[ ]
020	[ ] Substantially identical to outfall:	[ ]	I	Copper, dissolved	5.88	ug/L		07/01/2016	[ ]	[ ]
020	[ ] Substantially identical to outfall:	[ ]	QBM	Iron, total	387	ug/L		07/01/2016	[ ]	[ ]
020	[ ] Substantially identical to outfall:	[ ]	QBM	Nitrate plus Nitrite Nitrogen	0.577	mg/L		07/01/2016	[ ]	[ ]

020	☐ Substantially identical to outfall:	☐	I	Thallium, dissolved	ND		0.450 ug/L	07/01/2016	☐	☐
020	☐ Substantially identical to outfall:	☐	QBM	Zinc, dissolved	169	ug/L		07/01/2016	☐	☐

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.58 hours. Rainfall amount = 0.28 inches.

020: The impaired water pollutant Adjusted Gross Alpha was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for Adjusted Gross Alpha will be discontinued per Part 6.2.4.1. *The result for Adjusted Gross Alpha was -0.19 pCi/L. Therefore, the result reported in column 3.h. is 0.00 pCi/L. The impaired water pollutant total Aroclors was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for total Aroclors will be discontinued per Part 6.2.4.1. The impaired water pollutant dissolved Thallium was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for dissolved Thallium will be discontinued per Part 6.2.4.1.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.3 2.c. Time since previous measurable storm event (days): 27

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?
029	[ ] Substantially identical to outfall:	[ ]	QBM	Aluminum, total recoverable	923	ug/L		07/01/2016	[ ]	[ ]
029	[ ] Substantially identical to outfall:	[ ]	QBM	Chemical Oxygen Demand (COD)	233	mg/L		07/01/2016	[ ]	[ ]
029	[ ] Substantially identical to outfall:	[ ]	QBM	Copper, dissolved	25.3	ug/L		07/01/2016	[ ]	[ ]
029	[ ] Substantially identical to outfall:	[ ]	QBM	Iron, total	2530	ug/L		07/01/2016	[ ]	[ ]
029	[ ] Substantially identical to outfall:	[ ]	QBM	Lead, dissolved	2.97	ug/L		07/01/2016	[ ]	[ ]
029	[ ] Substantially identical to outfall:	[ ]	QBM	Total Suspended Solids (TSS)	63.6	mg/L		07/01/2016	[ ]	[ ]
029	[ ] Substantially identical to outfall:	[ ]	QBM	Zinc, dissolved	122	ug/L		07/01/2016	[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.58 hours. Rainfall amount = 0.28 inches.

029: 029: Aluminum, total recoverable (I) - NODI 9. 029: Copper, dissolved (I) - NODI 9. The average concentration of dissolved Copper is mathematically certain to exceed the benchmark value.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.3 2.c. Time since previous measurable storm event (days): 61

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
047	[ ] Substantially identical to outfall:	[ ]	QBM	Ammonia, total	1.65	mg/L		07/01/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	I	Aroclor, total	ND		0.0333 ug/L	07/01/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Chemical Oxygen Demand (COD)	238	mg/L		07/01/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Cyanide, total	BQL		0.005 mg/L	07/01/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Magnesium, total	1.69	mg/L		07/01/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Mercury, total	ND		0.067 ug/L	07/01/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Selenium, total	ND		1.50 ug/L	07/01/2016	[ ]	[ ]
046	[X] Substantially identical to outfall: 047	[ ]							[ ]	[ ]

045	[X] Substantially identical to outfall: 047	☐							☐	☐
048	[X] Substantially identical to outfall: 047	☐							☐	☐
044	[X] Substantially identical to outfall: 047	☐							☐	☐

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 1.42 hours. Rainfall amount = 0.30 inches.

047: The impaired water pollutant total Aroclors was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for total Aroclors will be discontinued per Part 6.2.4.1. The average concentration of total Magnesium is mathematically certain to exceed the benchmark value.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.3 2.c. Time since previous measurable storm event (days): 61

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	[ ] Substantially identical to outfall:	[ ]	I	Copper, dissolved	24	ug/L		07/01/2016	[ ]	[ ]
075	[ ] Substantially identical to outfall:	[ ]	I	Thallium, dissolved	ND		0.450 ug/L	07/01/2016	[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.58 hours. Rainfall amount = 0.28 inches.

075: The impaired water pollutant dissolved Copper exceeds the New Mexico water quality standard. The impaired water pollutant dissolved Thallium was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for dissolved Thallium will be discontinued per Part 6.2.4.1.

G. Certification

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

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature:  Date 08/25/2016

E-mail: grieggst@lanl.gov

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

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

Waiver granted:
- [ ] The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.
- [X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

- [ ] Submitting monitoring data (Fill in all Sections).
- [X] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).
- [ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).
- [ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).
- [ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

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

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

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

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[ ] Quarter 1: From	04 / 01	To 05 / 31
[ ] Quarter 2 (April 1 – June 30)	[X] Quarter 2: From	06 / 01	To 07 / 31
[ ] Quarter 3 (July 1 – September 30)	[ ] Quarter 3: From	08 / 01	To 09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01	To 11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: ☐ Rainfall (Complete line items 2.a., 2.b., & 2.c.) ☐ Snowmelt

2.a. Duration of the rainfall event (hours): 2.b. Rainfall amount (inches): 2.c. Time since previous measurable storm event (days):

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
012	☐ Substantially identical to outfall:	☒							☐	☐
011	☒ Substantially identical to outfall: 012	☐							☐	☐

* (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

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?
018	☐ Substantially identical to outfall:	☒							☐	☐
013	☒ Substantially identical to outfall: 018	☐							☐	☐
014	☒ Substantially identical to outfall: 018	☐							☐	☐
015	☒ Substantially identical to outfall: 018	☐							☐	☐
016	☒ Substantially identical to outfall: 018	☐							☐	☐
017	☒ Substantially identical to outfall: 018	☐							☐	☐
019	☒ Substantially identical to outfall: 018	☐							☐	☐

* (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)

018: NODI: C

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	☐ Substantially identical to outfall:	☒							☐	☐
037	☒ Substantially identical to outfall: 036	☒							☐	☐

* (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

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?
039	☐ Substantially identical to outfall:	☒							☐	☐
038	☒ Substantially identical to outfall: 039	☒							☐	☐
040	☒ Substantially identical to outfall: 039	☒							☐	☐

* (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

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?
042	☐ Substantially identical to outfall:	☒							☐	☐
041	☒ Substantially identical to outfall: 042	☐							☐	☐

* (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)

042: 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?
043	☐ Substantially identical to outfall:	☒							☐	☐

* (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

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	☐ Substantially identical to outfall:	☒							☐	☐
065	☒ Substantially identical to outfall: 053	☐							☐	☐
066	☒ Substantially identical to outfall: 053	☐							☐	☐

* (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

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	☐ Substantially identical to outfall:	☒							☐	☐
074	☒ Substantially identical to outfall: 073	☐							☐	☐

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

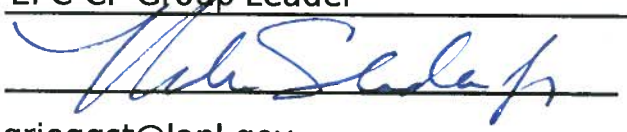
073: NODI: C

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 08/25/2016

E-mail: 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: SEP 2 2 2016
Symbol: EPC-DO-16-283
LA-UR: 16-27215
Locates Action No.: N/A

U.S. EPA Region 6
NPDES Stormwater Program (WQ-PP)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

To whom it may concern:

Subject: **National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR053195, Multi-Sector General Permit (MSGP) Industrial Discharge Monitoring Reports (MDMRs) for July 15, 21 and 25, 2016**

Enclosed are Los Alamos National Laboratory's MDMRs (Enclosure 1) for July 15, 21 and 25, 2016, as required under MSGP Permit Tracking No. NMR053195. These reports are being submitted on behalf of Los Alamos National Security LLC and contain analytical results for impaired waters and quarterly benchmark monitoring at outfalls 005, 020, 031, 047, 049, 051, and 072 .

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

Sincerely,

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

ARG:TWL:HLW/lm

Enclosure: 1. NPDES Permit Tracking No. NMR053195, MDMRs for July 15, 21 and 25, 2016

Cy: Everett Spencer, USEPA/Region 6, Dallas TX (E-File)
Helen Nguyen, USEPA/Region 6, Dallas TX (E-File)
Michelle Hunter, NMED/GWQB, Santa Fe, NM (E-File)
Shelly Lemon, NMED/SWQB, Santa Fe, NM (E-File)
Craig S. Leasure, PADOPS, (E-File)
William R. Mairson, PADOPS, (E-File)
Michael T. Brandt, ADESH, (E-File)
Raeanna Sharp-Geiger, ADESH, (E-File)
Karen E. Armijo, NA-LA, (E-File)
Terrill W. Lemke, EPC-CP, (E-File)
Holly L. Wheeler, EPC-CP, (E-File)
Leslie J. Dale, EPC-CP, (E-File)
Ellena I. Martinez, EPC-DP, (E-File)
Saundra Martinez, ADEM-PO, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov

ENCLOSURE 1

NPDES Permit Tracking No. NMR053195, MDMRs
for July 15, 21 and 25, 2016

EPC-DO-16-283

LA-UR-16-27215

Date: SEP 2 2 2016

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

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

Waiver granted:

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

[X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

[X] Submitting monitoring data (Fill in all Sections).

[ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).

[ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).

[ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).

[ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

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

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

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

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[ ] Quarter 1: From	04 / 01	To 05 / 31
[ ] Quarter 2 (April 1 – June 30)	[X] Quarter 2: From	06 / 01	To 07 / 31
[ ] Quarter 3 (July 1 – September 30)	[ ] Quarter 3: From	08 / 01	To 09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01	To 11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.3 2.c. Time since previous measurable storm event (days): 14

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
005	[ ] Substantially identical to outfall:	[ ]	QBM	Iron, total	4450	ug/L		07/15/2016	[ ]	[ ]
006	[X] Substantially identical to outfall: 005	[ ]							[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.67 hours. Rainfall amount = 0.31 inches.

005: The average concentration of total Iron is mathematically certain to exceed the benchmark value.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.3 2.c. Time since previous measurable storm event (days): 14

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?

* (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 = 0.67 hours. Rainfall amount = 0.31 inches.

005: 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.

G. Certification

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

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature: A R Grieggs Date 09/22/2016

E-mail: grieggst@lanl.gov

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

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

Waiver granted:

- [ ] The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.
- [X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

- [X] Submitting monitoring data (Fill in all Sections).
- [ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).
- [ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).
- [ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).
- [ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P,O. Box 1663, MS K490

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

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

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

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[ ] Quarter 1: From	04 / 01	To	05 / 31
[ ] Quarter 2 (April 1 – June 30)	[X] Quarter 2: From	06 / 01	To	07 / 31
[ ] Quarter 3 (July 1 – September 30)	[ ] Quarter 3: From	08 / 01	To	09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01	To	11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.2 2.c. Time since previous measurable storm event (days): 6

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	[ ] Substantially identical to outfall:	[ ]	QBM	Aluminum, total recoverable	97.1	ug/L		07/21/2016	[ ]	[ ]
020	[ ] Substantially identical to outfall:	[ ]	I	Aluminum, total recoverable	97.1	ug/L		07/21/2016	[ ]	[ ]
020	[ ] Substantially identical to outfall:	[ ]	QBM	Copper, dissolved	4.24	ug/L		07/21/2016	[ ]	[ ]
020	[ ] Substantially identical to outfall:	[ ]	I	Copper, dissolved	4.24	ug/L		07/21/2016	[ ]	[ ]
020	[ ] Substantially identical to outfall:	[ ]	QBM	Iron, total	128	ug/L		07/21/2016	[ ]	[ ]
020	[ ] Substantially identical to outfall:	[ ]	QBM	Nitrate plus Nitrite Nitrogen	0.443	mg/L		07/21/2016	[ ]	[ ]
020	[ ] Substantially identical to outfall:	[ ]	QBM	Zinc, dissolved	130	ug/L		07/21/2016	[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.83 hours. Rainfall amount = 0.21 inches.

020: Adjusted Gross Alpha (I) - NODI B. Aroclor, total (I) - NODI B. Thallium, dissolved (I) - NODI B.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.4 2.c. Time since previous measurable storm event (days): 81

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	[ ] Substantially identical to outfall:	[ ]	I	Adjusted Gross Alpha	38.9	pCi/L		07/21/2016	[ ]	[ ]
031	[ ] Substantially identical to outfall:	[ ]	I	Aluminum, total recoverable	2990	ug/L		07/21/2016	[ ]	[ ]
031	[ ] Substantially identical to outfall:	[ ]	I	Aroclor, total	ND		0.172 ug/L	07/21/2016	[ ]	[ ]
031	[ ] Substantially identical to outfall:	[ ]	I	Copper, dissolved	11.3	ug/L		07/21/2016	[ ]	[ ]
030	[X] Substantially identical to outfall: 031	[ ]							[ ]	[ ]

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4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.75 hours. Rainfall amount = 0.36 inches.

031: The impaired water pollutant Adjusted Gross Alpha exceeds the New Mexico water quality standard. The impaired water pollutant total recoverable Aluminum exceeds the New Mexico water quality standard. The impaired water pollutant total Aroclor was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for total Aroclor will be discontinued per Part 6.2.4.1. The impaired water pollutant dissolved Copper exceeds the New Mexico water quality standard.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 0 2.b. Rainfall amount (inches): 0.1 2.c. Time since previous measurable storm event (days): 3

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
047	[ ] Substantially identical to outfall:	[ ]	I	Adjusted Gross Alpha	17.5	pCi/L		07/21/2016	[ ]	[ ]
046	[X] Substantially identical to outfall: 047	[ ]							[ ]	[ ]
045	[X] Substantially identical to outfall: 047	[ ]							[ ]	[ ]
048	[X] Substantially identical to outfall: 047	[ ]							[ ]	[ ]
044	[X] Substantially identical to outfall: 047	[ ]							[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.50 hours. Rainfall amount = 0.09 inches.

047: The impaired water pollutant Adjusted Gross Alpha exceeds the New Mexico water quality standard.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 0 2.b. Rainfall amount (inches): 0.1 2.c. Time since previous measurable storm event (days): 3

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.50 hours. Rainfall amount = 0.09 inches.

047: Aluminum, total recoverable (I) - NODI 9. Aroclor, total (I) - NODI B.

G. Certification

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

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature: A R Grieggs Date 09/22/2016

E-mail: grieggst@lanl.gov

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

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

Waiver granted:

- [ ] The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.
- [X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

- [X] Submitting monitoring data (Fill in all Sections).
- [ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).
- [ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).
- [ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).
- [ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

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

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

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

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[ ] Quarter 1: From	04 / 01	To 05 / 31
[ ] Quarter 2 (April 1 – June 30)	[X] Quarter 2: From	06 / 01	To 07 / 31
[ ] Quarter 3 (July 1 – September 30)	[ ] Quarter 3: From	08 / 01	To 09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01	To 11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.4 2.c. Time since previous measurable storm event (days): 4

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
047	[ ] Substantially identical to outfall:	[ ]	QBM	Arsenic, dissolved	ND		1.70 ug/L	07/25/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Cadmium, dissolved	BQL		1.00 ug/L	07/25/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Lead, dissolved	BQL		2.00 ug/L	07/25/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Silver, dissolved	ND		0.200 ug/L	07/25/2016	[ ]	[ ]
046	[X] Substantially identical to outfall: 047	[ ]							[ ]	[ ]
045	[X] Substantially identical to outfall: 047	[ ]							[ ]	[ ]
048	[X] Substantially identical to outfall: 047	[ ]							[ ]	[ ]
044	[X] Substantially identical to outfall: 047	[ ]							[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 1.00 hours. Rainfall amount = 0.38 inches.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.4 2.c. Time since previous measurable storm event (days): 4

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?

* (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 = 1.00 hours. Rainfall amount = 0.38 inches.

047: Adjusted Gross Alpha (I) - NODI 9. Aluminum, total recoverable (I) - NODI 9. Aroclor, total (I) - NODI B.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.4 2.c. Time since previous measurable storm event (days): 24

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?
049	[ ] Substantially identical to outfall:	[ ]	I	Aluminum, total recoverable	4670	ug/L		07/25/2016	[ ]	[ ]
049	[ ] Substantially identical to outfall:	[ ]	I	Aroclor, total	ND		0.0351 ug/L	07/25/2016	[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 1.00 hours. Rainfall amount = 0.38 inches.

049: The impaired water pollutant total recoverable Aluminum exceeds the New Mexico water quality standard. The impaired water pollutant total Aroclor was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for total Aroclor will be discontinued per Part 6.2.4.1.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.2 2.c. Time since previous measurable storm event (days): 86

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	[ ] Substantially identical to outfall:	[ ]	I	Aluminum, total recoverable	14100	ug/L		07/25/2016	[ ]	[ ]
051	[ ] Substantially identical to outfall:	[ ]	QBM	Ammonia, total	0.242	mg/L		07/25/2016	[ ]	[ ]
051	[ ] Substantially identical to outfall:	[ ]	I	Aroclor, total	ND		0.0354 ug/L	07/25/2016	[ ]	[ ]
051	[ ] Substantially identical to outfall:	[ ]	QBM	Arsenic, dissolved	ND		1.70 ug/L	07/25/2016	[ ]	[ ]
051	[ ] Substantially identical to outfall:	[ ]	QBM	Cadmium, dissolved	BQL		1.00 ug/L	07/25/2016	[ ]	[ ]
051	[ ] Substantially identical to outfall:	[ ]	QBM	Chemical Oxygen Demand (COD)	407	mg/L		07/25/2016	[ ]	[ ]
051	[ ] Substantially identical to outfall:	[ ]	QBM	Cyanide, total	ND		0.00167 mg/L	07/25/2016	[ ]	[ ]
051	[ ] Substantially identical to outfall:	[ ]	QBM	Lead, dissolved	BQL		2.00 ug/L	07/25/2016	[ ]	[ ]

051	☐ Substantially identical to outfall:	☐	QBM	Magnesium, total	8.79	mg/L		07/25/2016	☐	☐
051	☐ Substantially identical to outfall:	☐	QBM	Mercury, total	ND		0.067 ug/L	07/25/2016	☐	☐
051	☐ Substantially identical to outfall:	☐	QBM	Selenium, total	ND		1.50 ug/L	07/25/2016	☐	☐
051	☐ Substantially identical to outfall:	☐	QBM	Silver, dissolved	ND		0.200 ug/L	07/25/2016	☐	☐
052	☒ Substantially identical to outfall: 051	☐							☐	☐

* (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 = 0.24 inches.

051: The impaired water pollutant total recoverable Aluminum exceeds the New Mexico water quality standard. The impaired water pollutant total Aroclor was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for total Aroclor will be discontinued per Part 6.2.4.1. The average concentration of total Magnesium is mathematically certain to exceed the benchmark value.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.2 2.c. Time since previous measurable storm event (days): 278

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	[ ] Substantially identical to outfall:	[ ]	I	Aluminum, total recoverable	836	ug/L		07/25/2016	[ ]	[ ]
072	[ ] Substantially identical to outfall:	[ ]	QBM	Ammonia, total	4.07	mg/L		07/25/2016	[ ]	[ ]
072	[ ] Substantially identical to outfall:	[ ]	QBM	Arsenic, dissolved	BQL		5.00 ug/L	07/25/2016	[ ]	[ ]
072	[ ] Substantially identical to outfall:	[ ]	QBM	Cadmium, dissolved	2.28	ug/L		07/25/2016	[ ]	[ ]
072	[ ] Substantially identical to outfall:	[ ]	QBM	Chemical Oxygen Demand (COD)	1220	mg/L		07/25/2016	[ ]	[ ]
072	[ ] Substantially identical to outfall:	[ ]	QBM	Cyanide, total	BQL		0.005 mg/L	07/25/2016	[ ]	[ ]
072	[ ] Substantially identical to outfall:	[ ]	QBM	Lead, dissolved	6.69	ug/L		07/25/2016	[ ]	[ ]
072	[ ] Substantially identical to outfall:	[ ]	QBM	Magnesium, total	6.9	mg/L		07/25/2016	[ ]	[ ]

072	☐ Substantially identical to outfall:	☐	QBM	Mercury, total	BQL		0.200 ug/L	07/25/2016	☐	☐
072	☐ Substantially identical to outfall:	☐	QBM	Selenium, total	BQL		5.00 ug/L	07/25/2016	☐	☐
072	☐ Substantially identical to outfall:	☐	QBM	Silver, dissolved	ND		0.200 ug/L	07/25/2016	☐	☐
070	☒ Substantially identical to outfall: 072	☐							☐	☐
071	☒ Substantially identical to outfall: 072	☐							☐	☐

* (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 = 0.24 inches.

072: The average concentration of Chemical Oxygen Demand is mathematically certain to exceed the benchmark value. The average concentration of total Magnesium is mathematically certain to exceed the benchmark value.

G. Certification

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

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature: A R Grieggs Date 09/22/2016

E-mail: 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: OCT 0 6 2016
Symbol: EPC-DO-16-291
LA-UR: 16-27686
Locates Action No.: N/A

U.S. EPA Region 6
NPDES Stormwater Program (WQ-PP)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

To whom it may concern:

Subject: **National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR053195, Multi-Sector General Permit (MSGP) Industrial Discharge Monitoring Reports (MDMRs) for July 31, August 1, 2, 3, 4, and 8, 2016**

Enclosed are Los Alamos National Laboratory's MDMRs (Enclosure 1) for July 31, August 1, 2, 3, 4 and 8, 2016, as required under MSGP Permit Tracking No. NMR053195. These reports are being submitted on behalf of Los Alamos National Security LLC and contain analytical results for impaired waters and quarterly benchmark monitoring at outfalls 042, 075, 029, 047, 050, 069, 072, 004, 020, 051, 002, 005, 009, 012, and 018.

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

Sincerely,

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

ARG:TWL:HLW/lm

Enclosure: 1. NPDES Permit Tracking No. NMR053195, MDMRs for July 31, August 1, 2, 3, 4 and 8, 2016

Cy: Everett Spencer, USEPA/Region 6, Dallas, TX, (E-File)
Helen Nguyen, USEPA/Region 6, Dallas, TX, (E-File)
Michelle Hunter, NMED/GWQB, Santa Fe, NM, (E-File)
Shelly Lemon, NMED/SWQB, Santa Fe, NM, (E-File)
Craig S. Leasure, PADOPS, (E-File)
William R. Mairson, PADOPS, (E-File)
Michael T. Brandt, ADESH, (E-File)
Raeanna Sharp-Geiger, ADESH, (E-File)
Karen E. Armijo, NA-LA, (E-File)
Terrill W. Lemke, EPC-CP, (E-File)
Holly L. Wheeler, EPC-CP, (E-File)
Leslie J. Dale, EPC-CP, (E-File)
Ellena I. Martinez, EPC-DP, (E-File)
Saundra Martinez, ADEM-PO, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov

ENCLOSURE 1

NPDES Permit Tracking No. NMR053195, MDMRs
for July 31, August 1, 2, 3, 4 and 8, 2016

EPC-DO-16-291

LA-UR-16-27686

Date: OCT 0 6 2016

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

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

Waiver granted:

- [ ] The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.
- [X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

- [X] Submitting monitoring data (Fill in all Sections).
- [ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).
- [ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).
- [ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).
- [ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

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

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

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

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[ ] Quarter 1: From	04 / 01	To 05 / 31
[ ] Quarter 2 (April 1 – June 30)	[X] Quarter 2: From	06 / 01	To 07 / 31
[ ] Quarter 3 (July 1 – September 30)	[ ] Quarter 3: From	08 / 01	To 09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01	To 11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 4 2.b. Rainfall amount (inches): 0.6 2.c. Time since previous measurable storm event (days): 9

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
042	[ ] Substantially identical to outfall:	[ ]	I	Copper, dissolved	4.96	ug/L		08/01/2016	[ ]	[ ]
042	[ ] Substantially identical to outfall:	[ ]	I	Thallium, dissolved	ND		0.450 ug/L	08/01/2016	[ ]	[ ]
041	[X] Substantially identical to outfall: 042	[ ]							[ ]	[ ]

* (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 = 3.58 hours. Rainfall amount = 0.59 inches.

042: Sample was collected on 8/1/2016 at 00:26, which falls within the 7/31/2016 storm day, defined as occurring between 06:05 and 06:00. The impaired water pollutant dissolved Thallium was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for dissolved Thallium will be discontinued per Part 6.2.4.1.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 4 2.b. Rainfall amount (inches): 1.0 2.c. Time since previous measurable storm event (days): 16

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	[ ] Substantially identical to outfall:	[ ]	I	Adjusted Gross Alpha	36.3	pCi/L		07/31/2016	[ ]	[ ]
075	[ ] Substantially identical to outfall:	[ ]	I	Aluminum, total recoverable	9240	ug/L		07/31/2016	[ ]	[ ]
075	[ ] Substantially identical to outfall:	[ ]	I	Aroclor, total	ND		0.034 ug/L	07/31/2016	[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 3.92 hours. Rainfall amount = 1.00 inches.

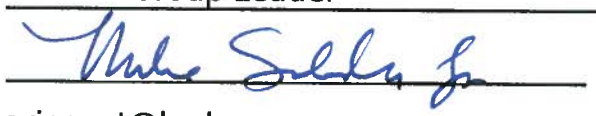
075: The impaired water pollutant Adjusted Gross Alpha exceeds the New Mexico water quality standard. The impaired water pollutant total recoverable Aluminum exceeds the New Mexico water quality standard. The impaired water pollutant total Aroclor was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for total Aroclor will be discontinued per Part 6.2.4.1. Copper, dissolved (I) - NODI 9. Thallium, dissolved (I) - NODI B.

G. Certification

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

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature:  Date 10/06/2016

E-mail: grieggst@lanl.gov

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

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

Waiver granted:

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

[X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

[X] Submitting monitoring data (Fill in all Sections).

[ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).

[ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).

[ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).

[ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

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

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

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

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[ ] Quarter 1: From	04 / 01	To 05 / 31
[ ] Quarter 2 (April 1 – June 30)	[ ] Quarter 2: From	06 / 01	To 07 / 31
[ ] Quarter 3 (July 1 – September 30)	[X] Quarter 3: From	08 / 01	To 09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01	To 11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 0 2.b. Rainfall amount (inches): 0.0 2.c. Time since previous measurable storm event (days): 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?
029	[ ] Substantially identical to outfall:	[ ]	QBM	Copper, dissolved	17.7	ug/L		08/01/2016	[ ]	[ ]
029	[ ] Substantially identical to outfall:	[ ]	QBM	Lead, dissolved	ND		0.500 ug/L	08/01/2016	[ ]	[ ]
029	[ ] Substantially identical to outfall:	[ ]	QBM	Zinc, dissolved	35	ug/L		08/01/2016	[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.08 hours. Rainfall amount = 0.01 inches.

029: Adjusted Gross Alpha (I) - NODI 9. Aluminum, total recoverable (I) - NODI 9. Aroclor, total (I) - NODI B. Thallium, dissolved (I) - NODI B. Copper, dissolved (I) - NODI 9.

G. Certification

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

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature:  Date 10/06/2016

E-mail: grieggst@lanl.gov

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

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

Waiver granted:

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

[X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

[X] Submitting monitoring data (Fill in all Sections).

[ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).

[ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).

[ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).

[ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

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

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

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

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[ ] Quarter 1: From	04 / 01 To 05 / 31
[ ] Quarter 2 (April 1 – June 30)	[ ] Quarter 2: From	06 / 01 To 07 / 31
[ ] Quarter 3 (July 1 – September 30)	[X] Quarter 3: From	08 / 01 To 09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01 To 11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 2 2.b. Rainfall amount (inches): 0.2 2.c. Time since previous measurable storm event (days): 2

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
047	[ ] Substantially identical to outfall:	[ ]	QBM	Arsenic, dissolved	ND		1.70 ug/L	08/03/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Cadmium, dissolved	BQL		1.00 ug/L	08/03/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Lead, dissolved	ND		0.500 ug/L	08/03/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Silver, dissolved	ND		0.200 ug/L	08/03/2016	[ ]	[ ]
046	[X] Substantially identical to outfall: 047	[ ]							[ ]	[ ]
045	[X] Substantially identical to outfall: 047	[ ]							[ ]	[ ]
048	[X] Substantially identical to outfall: 047	[ ]							[ ]	[ ]
044	[X] Substantially identical to outfall: 047	[ ]							[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 1.75 hours. Rainfall amount = 0.22 inches.

047: Sample was collected on 8/3/2016 at 00:56, which falls within the 8/2/2016 storm day, defined as occurring between 06:05 and 06:00. Adjusted Gross Alpha (I) - NODI 9. Aluminum, total recoverable (I) - NODI 9. Aroclor, total (I) - NODI B.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 2 2.b. Rainfall amount (inches): 0.2 2.c. Time since previous measurable storm event (days): 2

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
050	[ ] Substantially identical to outfall:	[ ]	QBM	Ammonia, total	1.05	mg/L		08/02/2016	[ ]	[ ]
050	[ ] Substantially identical to outfall:	[ ]	QBM	Arsenic, dissolved	ND		1.70 ug/L	08/02/2016	[ ]	[ ]
050	[ ] Substantially identical to outfall:	[ ]	QBM	Cadmium, dissolved	2	ug/L		08/02/2016	[ ]	[ ]
050	[ ] Substantially identical to outfall:	[ ]	QBM	Chemical Oxygen Demand (COD)	228	mg/L		08/02/2016	[ ]	[ ]
050	[ ] Substantially identical to outfall:	[ ]	QBM	Cyanide, total	BQL		0.005 mg/L	08/02/2016	[ ]	[ ]
050	[ ] Substantially identical to outfall:	[ ]	QBM	Lead, dissolved	ND		0.500 ug/L	08/02/2016	[ ]	[ ]
050	[ ] Substantially identical to outfall:	[ ]	QBM	Magnesium, total	1.57	mg/L		08/02/2016	[ ]	[ ]
050	[ ] Substantially identical to outfall:	[ ]	QBM	Mercury, total	ND		0.067 ug/L	08/02/2016	[ ]	[ ]

050	☐ Substantially identical to outfall:	☐	QBM	Selenium, total	ND		1.50 ug/L	08/02/2016	☐	☐
050	☐ Substantially identical to outfall:	☐	QBM	Silver, dissolved	ND		0.200 ug/L	08/02/2016	☐	☐

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 1.75 hours. Rainfall amount = 0.22 inches.

050: The average concentration of Chemical Oxygen Demand (COD) is mathematically certain to exceed the benchmark value. The average concentration of total Magnesium 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.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 3 2.b. Rainfall amount (inches): 0.7 2.c. Time since previous measurable storm event (days): 2

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
069	[ ] Substantially identical to outfall:	[ ]	QBM	Ammonia, total	0.175	mg/L		08/03/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Arsenic, dissolved	ND		1.70 ug/L	08/03/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Cadmium, dissolved	ND		0.110 ug/L	08/03/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Chemical Oxygen Demand (COD)	ND		8.95 mg/L	08/03/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Cyanide, total	ND		0.00167 mg/L	08/03/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Lead, dissolved	ND		0.500 ug/L	08/03/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Magnesium, total	0.547	mg/L		08/03/2016	[ ]	[ ]
069	[ ] Substantially identical to outfall:	[ ]	QBM	Mercury, total	ND		0.067 ug/L	08/03/2016	[ ]	[ ]

069	☐ Substantially identical to outfall:	☐	QBM	Selenium, total	ND		1.50 ug/L	08/03/2016	☐	☐
069	☐ Substantially identical to outfall:	☐	QBM	Silver, dissolved	ND		0.200 ug/L	08/03/2016	☐	☐
059	☒ Substantially identical to outfall: 069	☐							☐	☐
058	☒ Substantially identical to outfall: 069	☐							☐	☐
057	☒ Substantially identical to outfall: 069	☐							☐	☐
056	☒ Substantially identical to outfall: 069	☐							☐	☐
055	☒ Substantially identical to outfall: 069	☐							☐	☐
054	☒ Substantially identical to outfall: 069	☐							☐	☐
067	☒ Substantially identical to outfall: 069	☐							☐	☐
068	☒ Substantially identical to outfall: 069	☐							☐	☐

060	[X] Substantially identical to outfall: 069	☐							☐	☐
061	[X] Substantially identical to outfall: 069	☐							☐	☐
062	[X] Substantially identical to outfall: 069	☐							☐	☐
063	[X] Substantially identical to outfall: 069	☐							☐	☐
064	[X] Substantially identical to outfall: 069	☐							☐	☐

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 2.75 hours. Rainfall amount = 0.68 inches.

069: The average concentration of total Magnesium is mathematically certain to exceed the benchmark value. Sample was collected on 8/3/2016 from two different samplers. The Avalanche sampler collected at 03:35 and the 3700 collected at 03:33, both of which fall within the 8/2/2016 storm day, defined as occurring between 06:05 and 06:00. Aluminum, total recoverable (I) - NODI 9. Aroclor, total (I) - NODI B.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 3 2.b. Rainfall amount (inches): 0.7 2.c. Time since previous measurable storm event (days): 286

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	[ ] Substantially identical to outfall:	[ ]	QBM	Arsenic, dissolved	ND		1.70 ug/L	08/03/2016	[ ]	[ ]
072	[ ] Substantially identical to outfall:	[ ]	QBM	Cadmium, dissolved	1.39	ug/L		08/03/2016	[ ]	[ ]
072	[ ] Substantially identical to outfall:	[ ]	QBM	Lead, dissolved	2.47	ug/L		08/03/2016	[ ]	[ ]
072	[ ] Substantially identical to outfall:	[ ]	QBM	Silver, dissolved	ND		0.200 ug/L	08/03/2016	[ ]	[ ]
070	[X] Substantially identical to outfall: 072	[ ]							[ ]	[ ]
071	[X] Substantially identical to outfall: 072	[ ]							[ ]	[ ]

* (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 = 2.75 hours. Rainfall amount = 0.68 inches.

072: Sample was collected on 8/3/2016 at 00:50, which falls within the 8/2/2016 storm day, defined as occurring between 06:05 and 06:00. Aluminum, total recoverable (I) - NODI 9.

G. Certification

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

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature:  Date 10/06/2016

E-mail: grieggst@lanl.gov

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

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

Waiver granted:

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

[X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

[X] Submitting monitoring data (Fill in all Sections).

[ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).

[ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).

[ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).

[ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

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

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

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

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[ ] Quarter 1: From	04 / 01 To 05 / 31
[ ] Quarter 2 (April 1 – June 30)	[ ] Quarter 2: From	06 / 01 To 07 / 31
[ ] Quarter 3 (July 1 – September 30)	[X] Quarter 3: From	08 / 01 To 09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01 To 11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 2 2.b. Rainfall amount (inches): 0.6 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?
004	[ ] Substantially identical to outfall:	[ ]	QBM	Aluminum, total recoverable	428	ug/L		08/03/2016	[ ]	[ ]
004	[ ] Substantially identical to outfall:	[ ]	QBM	Iron, total	1420	ug/L		08/03/2016	[ ]	[ ]
004	[ ] Substantially identical to outfall:	[ ]	QBM	Nitrate plus Nitrite Nitrogen	2.66	mg/L		08/03/2016	[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 2.00 hours. Rainfall amount = 0.61 inches.

004: The average concentration of Nitrate plus Nitrite Nitrogen is mathematically certain to exceed the benchmark value. Adjusted Gross Alpha (I) - NODI 9. Aroclor, total (I) - NODI 9. Aluminum, total recoverable (I) - NODI 9.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 2 2.b. Rainfall amount (inches): 0.6 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?
005	[ ] Substantially identical to outfall:	[ ]	QBM	Iron, total	1380	ug/L		08/03/2016	[ ]	[ ]
006	[X] Substantially identical to outfall: 005	[X]							[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 2.00 hours. Rainfall amount = 0.61 inches.

005: 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: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 2 2.b. Rainfall amount (inches): 0.6 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	[ ] Substantially identical to outfall:	[ ]	QBM	Aluminum, total recoverable	BQL		50.0 ug/L	08/03/2016	[ ]	[ ]
020	[ ] Substantially identical to outfall:	[ ]	I	Aluminum, total recoverable	BQL		50.0 ug/L	08/03/2016	[ ]	[ ]
020	[ ] Substantially identical to outfall:	[ ]	QBM	Copper, dissolved	3.71	ug/L		08/03/2016	[ ]	[ ]
020	[ ] Substantially identical to outfall:	[ ]	I	Copper, dissolved	3.71	ug/L		08/03/2016	[ ]	[ ]
020	[ ] Substantially identical to outfall:	[ ]	QBM	Iron, total	BQL		100 ug/L	08/03/2016	[ ]	[ ]
020	[ ] Substantially identical to outfall:	[ ]	QBM	Nitrate plus Nitrite Nitrogen	0.186	mg/L		08/03/2016	[ ]	[ ]
020	[ ] Substantially identical to outfall:	[ ]	QBM	Zinc, dissolved	153	ug/L		08/03/2016	[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 2.00 hours. Rainfall amount = 0.61 inches.

020: The average concentration of dissolved Zinc is mathematically certain to exceed the benchmark value. Adjusted Gross Alpha (I) - NODI B. Aroclor, total (I) - NODI B. Thallium, dissolved (I) - NODI B.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 2 2.b. Rainfall amount (inches): 0.6 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?
029	[ ] Substantially identical to outfall:	[ ]	QBM	Aluminum, total recoverable	192	ug/L		08/03/2016	[ ]	[ ]
029	[ ] Substantially identical to outfall:	[ ]	QBM	Chemical Oxygen Demand (COD)	79.2	mg/L		08/03/2016	[ ]	[ ]
029	[ ] Substantially identical to outfall:	[ ]	QBM	Iron, total	649	ug/L		08/03/2016	[ ]	[ ]
029	[ ] Substantially identical to outfall:	[ ]	QBM	Total Suspended Solids (TSS)	25.2	mg/L		08/03/2016	[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 2.00 hours. Rainfall amount = 0.61 inches.

029: 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: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] 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): 3

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
042	[ ] Substantially identical to outfall:	[ ]	I	Adjusted Gross Alpha	49.6	pCi/L		08/03/2016	[ ]	[ ]
042	[ ] Substantially identical to outfall:	[ ]	I	Aluminum, total recoverable	4480	ug/L		08/03/2016	[ ]	[ ]
042	[ ] Substantially identical to outfall:	[ ]	I	Aroclor, total	ND		0.034 ug/L	08/03/2016	[ ]	[ ]
041	[X] Substantially identical to outfall: 042	[ ]							[ ]	[ ]

* (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 = 2.42 hours. Rainfall amount = 0.42 inches.

042: The impaired water pollutant Adjusted Gross Alpha exceeds the New Mexico water quality standard. The impaired water pollutant total recoverable Aluminum exceeds the New Mexico water quality standard. The impaired water pollutant total Aroclor was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for total Aroclor will be discontinued per Part 6.2.4.1.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.4 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?
047	[ ] Substantially identical to outfall:	[ ]	QBM	Ammonia, total	0.270	mg/L		08/03/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Chemical Oxygen Demand (COD)	ND		8.95 mg/L	08/03/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Cyanide, total	ND		0.00167 mg/L	08/03/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Magnesium, total	0.368	mg/L		08/03/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Mercury, total	ND		0.067 ug/L	08/03/2016	[ ]	[ ]
047	[ ] Substantially identical to outfall:	[ ]	QBM	Selenium, total	ND		1.50 ug/L	08/03/2016	[ ]	[ ]
046	[X] Substantially identical to outfall: 047	[ ]							[ ]	[ ]
045	[X] Substantially identical to outfall: 047	[ ]							[ ]	[ ]

048	[X] Substantially identical to outfall: 047	☐							☐	☐
044	[X] Substantially identical to outfall: 047	☐							☐	☐

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 1.50 hours. Rainfall amount = 0.37 inches.

047: The average concentration of total Magnesium 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.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 2 2.b. Rainfall amount (inches): 0.9 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	[ ] Substantially identical to outfall:	[ ]	QBM	Ammonia, total	0.157	mg/L		08/03/2016	[ ]	[ ]
051	[ ] Substantially identical to outfall:	[ ]	QBM	Arsenic, dissolved	ND		1.70 ug/L	08/03/2016	[ ]	[ ]
051	[ ] Substantially identical to outfall:	[ ]	QBM	Cadmium, dissolved	BQL		1.00 ug/L	08/03/2016	[ ]	[ ]
051	[ ] Substantially identical to outfall:	[ ]	QBM	Chemical Oxygen Demand (COD)	41.0	mg/L		08/03/2016	[ ]	[ ]
051	[ ] Substantially identical to outfall:	[ ]	QBM	Cyanide, total	ND		0.00167 mg/L	08/03/2016	[ ]	[ ]
051	[ ] Substantially identical to outfall:	[ ]	QBM	Lead, dissolved	ND		0.500 ug/L	08/03/2016	[ ]	[ ]
051	[ ] Substantially identical to outfall:	[ ]	QBM	Magnesium, total	1.41	mg/L		08/03/2016	[ ]	[ ]
051	[ ] Substantially identical to outfall:	[ ]	QBM	Mercury, total	ND		0.067 ug/L	08/03/2016	[ ]	[ ]

051	☐ Substantially identical to outfall:	☐	QBM	Selenium, total	ND		1.50 ug/L	08/03/2016	☐	☐
051	☐ Substantially identical to outfall:	☐	QBM	Silver, dissolved	ND		0.200 ug/L	08/03/2016	☐	☐
052	☒ Substantially identical to outfall: 051	☐							☐	☐

* (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 = 2.00 hours. Rainfall amount = 0.91 inches.

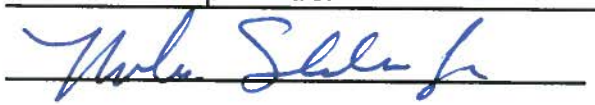
051: The average concentration of total Magnesium is mathematically certain to exceed the benchmark value. Aluminum, total recoverable (I) - NODI 9. Aroclor, total (I) - NODI B.

G. Certification

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

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature:  Date 10/06/2016

E-mail: grieggst@lanl.gov

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

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

Waiver granted:

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

[X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

[X] Submitting monitoring data (Fill in all Sections).

[ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).

[ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).

[ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).

[ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

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

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

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

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[ ] Quarter 1: From	04 / 01	To 05 / 31
[ ] Quarter 2 (April 1 – June 30)	[ ] Quarter 2: From	06 / 01	To 07 / 31
[ ] Quarter 3 (July 1 – September 30)	[X] Quarter 3: From	08 / 01	To 09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01	To 11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.3 2.c. Time since previous measurable storm event (days): 1

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
002	[ ] Substantially identical to outfall:	[ ]	QBM	Aluminum, total recoverable	2770	ug/L		08/04/2016	[ ]	[ ]
002	[ ] Substantially identical to outfall:	[ ]	QBM	Iron, total	4860	ug/L		08/04/2016	[ ]	[ ]
002	[ ] Substantially identical to outfall:	[ ]	QBM	Nitrate plus Nitrite Nitrogen	0.856	mg/L		08/04/2016	[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 1.42 hours. Rainfall amount = 0.28 inches.

002: The average concentration of total recoverable Aluminum is mathematically certain to exceed the benchmark value. The average concentration of total Iron is mathematically certain to exceed the benchmark value. 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: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.3 2.c. Time since previous measurable storm event (days): 1

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
009	[ ] Substantially identical to outfall:	[ ]	QBM	Iron, total	1090	ug/L		08/04/2016	[ ]	[ ]
007	[X] Substantially identical to outfall: 009	[X]							[ ]	[ ]
008	[X] Substantially identical to outfall: 009	[X]							[ ]	[ ]
010	[X] Substantially identical to outfall: 009	[X]							[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 1.42 hours. Rainfall amount = 0.28 inches.

009: 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 9.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.3 2.c. Time since previous measurable storm event (days): 1

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
012	[ ] Substantially identical to outfall:	[ ]	I	Aluminum, total recoverable	1040	ug/L		08/04/2016	[ ]	[ ]
012	[ ] Substantially identical to outfall:	[ ]	I	Aroclor, total	ND		0.0343 ug/L	08/04/2016	[ ]	[ ]
012	[ ] Substantially identical to outfall:	[ ]	I	Copper, dissolved	2.13	ug/L		08/04/2016	[ ]	[ ]
012	[ ] Substantially identical to outfall:	[ ]	QBM	Iron, total	5150	ug/L		08/04/2016	[ ]	[ ]
012	[ ] Substantially identical to outfall:	[ ]	I	Thallium, dissolved	ND		0.450 ug/L	08/04/2016	[ ]	[ ]
011	[X] Substantially identical to outfall: 012	[X]							[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 1.42 hours. Rainfall amount = 0.28 inches.

012: The impaired water pollutant total recoverable Aluminum exceeds the New Mexico water quality standard. The impaired water pollutant total Aroclor was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for total Aroclor will be discontinued per Part 6.2.4.1. The average concentration of total Iron is mathematically certain to exceed the benchmark value. The impaired water pollutant dissolved Thallium was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for dissolved Thallium will be discontinued per Part 6.2.4.1.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.3 2.c. Time since previous measurable storm event (days): 1

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
018	[ ] Substantially identical to outfall:	[ ]	I	Adjusted Gross Alpha	5.06	pCi/L		08/04/2016	[ ]	[ ]
018	[ ] Substantially identical to outfall:	[ ]	QBM	Aluminum, total recoverable	94.8	ug/L		08/04/2016	[ ]	[ ]
018	[ ] Substantially identical to outfall:	[ ]	QBM	Iron, total	1150	ug/L		08/04/2016	[ ]	[ ]
018	[ ] Substantially identical to outfall:	[ ]	QBM	Nitrate plus Nitrite Nitrogen	0.0544	mg/L		08/04/2016	[ ]	[ ]
013	[X] Substantially identical to outfall: 018	[X]							[ ]	[ ]
014	[X] Substantially identical to outfall: 018	[ ]							[ ]	[ ]
015	[X] Substantially identical to outfall: 018	[ ]							[ ]	[ ]
016	[X] Substantially identical to outfall: 018	[X]							[ ]	[ ]

017	[X] Substantially identical to outfall: 018	[X]							☐	☐
019	[X] Substantially identical to outfall: 018	[X]							☐	☐

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 1.42 hours. Rainfall amount = 0.28 inches.

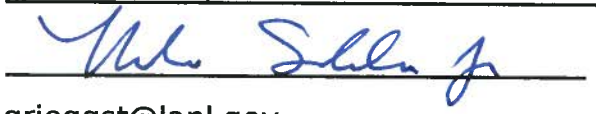
018: Copper, dissolved (I) - NODI 9. Thallium, dissolved (I) - NODI B. Aluminum, total recoverable (I) - NODI 9.

G. Certification

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

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature:  Date 10/06/2016

E-mail: grieggst@lanl.gov

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

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

Waiver granted:

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

[X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

[X] Submitting monitoring data (Fill in all Sections).

[ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).

[ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).

[ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).

[ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

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

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

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

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[ ] Quarter 1: From	04 / 01	To 05 / 31
[ ] Quarter 2 (April 1 – June 30)	[ ] Quarter 2: From	06 / 01	To 07 / 31
[ ] Quarter 3 (July 1 – September 30)	[X] Quarter 3: From	08 / 01	To 09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01	To 11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.4 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	[ ] Substantially identical to outfall:	[ ]	QBM	Zinc, dissolved	54.3	ug/L		08/08/2016	[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.83 hours. Rainfall amount = 0.37 inches.

002: 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: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.4 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?
004	[ ] Substantially identical to outfall:	[ ]	QBM	Zinc, dissolved	10.3	ug/L		08/08/2016	[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.83 hours. Rainfall amount = 0.37 inches.

004: Adjusted Gross Alpha (I) - NODI 9. Aluminum, total recoverable (I) - NODI 9. Aroclor, total (I) - NODI 9.

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.4 2.c. Time since previous measurable storm event (days): 4

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?
018	[ ] Substantially identical to outfall:	[ ]	QBM	Copper, dissolved	11.2	ug/L		08/08/2016	[ ]	[ ]
018	[ ] Substantially identical to outfall:	[ ]	QBM	Zinc, dissolved	463	ug/L		08/08/2016	[ ]	[ ]
013	[X] Substantially identical to outfall: 018	[ ]							[ ]	[ ]
014	[X] Substantially identical to outfall: 018	[ ]							[ ]	[ ]
015	[X] Substantially identical to outfall: 018	[ ]							[ ]	[ ]
016	[X] Substantially identical to outfall: 018	[ ]							[ ]	[ ]
017	[X] Substantially identical to outfall: 018	[ ]							[ ]	[ ]
019	[X] Substantially identical to outfall: 018	[X]							[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.83 hours. Rainfall amount = 0.37 inches.

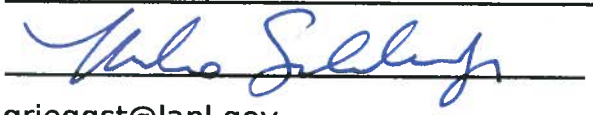
018: Adjusted Gross Alpha (I) - NODI 9. The average concentration of dissolved Zinc is mathematically certain to exceed the benchmark value. Aluminum, total recoverable (I) - NODI 9. Thallium, dissolved (I) - NODI B. Copper, dissolved (I) - NODI 9.

G. Certification

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

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature:  Date 10/06/2016

E-mail: grieggst@lanl.gov

Los Alamos
NATIONAL LABORATORY
EST. 1943

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

Date: OCT 2 0 2016
Symbol: EPC-DO-16-315
LA-UR: 16-28029
Locates Action No.: N/A

U.S. EPA Region 6
NPDES Stormwater Program (WQ-PP)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

To whom it may concern:

Subject: **National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR053195, Multi-Sector General Permit (MSGP) Industrial Discharge Monitoring Reports (MDMRs) for August 11 and 13, 2016**

Enclosed are Los Alamos National Laboratory's MDMRs (Enclosure 1) for August 11 and 13, 2016, as required under MSGP Permit Tracking No. NMR053195. These reports are being submitted on behalf of Los Alamos National Security LLC and contain analytical results for impaired waters and quarterly benchmark monitoring at outfall 018.

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

Sincerely,

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

ARG:TWL:HLW/lm

Enclosure: 1. NPDES Permit Tracking No. NMR053195, MDMRs for August 11 and 13, 2016

Cy: Everett Spencer, USEPA Region 6, Dallas, TX, (E-File)
Helen Nguyen, USEPA Region 6, Dallas, TX, (E-File)
Nasim Jahan, USEPA Region 6, Dallas, TX, (E-File)
Michelle Hunter, NMED/GWQB, Santa Fe, NM (E-File)
Shelly Lemon, NMED/SWQB, Santa Fe, NM (E-File)
Craig S. Leasure, PADOPS, (E-File)
William R. Mairson, PADOPS, (E-File)
Michael T. Brandt, ADESH, (E-File)
Raeanna Sharp-Geiger, ADESH, (E-File)
Karen E. Armijo, NA-LA, (E-File)
Terrill W. Lemke, EPC-CP, (E-File)
Holly L. Wheeler, EPC-CP, (E-File)
Leslie J. Dale, EPC-CP, (E-File)
Ellena I. Martinez, EPC-DP, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov

ENCLOSURE 1

NPDES Permit Tracking No. NMR053195, MDMRs
for August 11 and 13, 2016

EPC-DO-16-315

LA-UR-16-28029

Date: OCT 2 0 2016

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

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

Waiver granted:

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

[X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

[X] Submitting monitoring data (Fill in all Sections).

[ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).

[ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).

[ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).

[ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

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

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

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

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[ ] Quarter 1: From	04 / 01	To 05 / 31
[ ] Quarter 2 (April 1 – June 30)	[ ] Quarter 2: From	06 / 01	To 07 / 31
[ ] Quarter 3 (July 1 – September 30)	[X] Quarter 3: From	08 / 01	To 09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01	To 11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 0 2.b. Rainfall amount (inches): 0.0 2.c. Time since previous measurable storm event (days): 3

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
018	[ ] Substantially identical to outfall:	[ ]	I	Aroclor, total	ND		0.0343 ug/L	08/11/2016	[ ]	[ ]
013	[X] Substantially identical to outfall: 018	[X]							[ ]	[ ]
014	[X] Substantially identical to outfall: 018	[X]							[ ]	[ ]
015	[X] Substantially identical to outfall: 018	[X]							[ ]	[ ]
016	[X] Substantially identical to outfall: 018	[X]							[ ]	[ ]
017	[X] Substantially identical to outfall: 018	[X]							[ ]	[ ]
019	[X] Substantially identical to outfall: 018	[X]							[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.00 hours. Rainfall amount = 0.00 inches.

018: Adjusted Gross Alpha (I) - NODI 9. Scattered showers throughout the area resulted in precipitation recorded at a nearby rain gauge (Rainfall duration = 0.25 hours; Rainfall amount = 0.03 inches). The impaired water pollutant total Aroclor was not detected in stormwater discharge from this outfall. Therefore, annual monitoring for total Aroclor will be discontinued per Part 6.2.4.1. Aluminum, total recoverable (I) - NODI 9. Copper, dissolved (I) - NODI 9. Thallium, dissolved (I) - NODI B.

G. Certification

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

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature: A R Grieggs Date 10/20/2016

E-mail: grieggst@lanl.gov

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

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

Waiver granted:

- [ ] The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.
- [X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

- [X] Submitting monitoring data (Fill in all Sections).
- [ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).
- [ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment field in Section F.4).
- [ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).
- [ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

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

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

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

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period:

[X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[ ] Quarter 1: From	04 / 01	To 05 / 31
[ ] Quarter 2 (April 1 – June 30)	[ ] Quarter 2: From	06 / 01	To 07 / 31
[ ] Quarter 3 (July 1 – September 30)	[X] Quarter 3: From	08 / 01	To 09 / 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10 / 01	To 11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 1 2.b. Rainfall amount (inches): 0.3 2.c. Time since previous measurable storm event (days): 2

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
018	[ ] Substantially identical to outfall:	[ ]	QBM	Aluminum, total recoverable	408	ug/L		08/13/2016	[ ]	[ ]
018	[ ] Substantially identical to outfall:	[ ]	QBM	Iron, total	1120	ug/L		08/13/2016	[ ]	[ ]
018	[ ] Substantially identical to outfall:	[ ]	QBM	Nitrate plus Nitrite Nitrogen	0.0841	mg/L		08/13/2016	[ ]	[ ]
013	[X] Substantially identical to outfall: 018	[X]							[ ]	[ ]
014	[X] Substantially identical to outfall: 018	[ ]							[ ]	[ ]
015	[X] Substantially identical to outfall: 018	[ ]							[ ]	[ ]
016	[X] Substantially identical to outfall: 018	[X]							[ ]	[ ]
017	[X] Substantially identical to outfall: 018	[ ]							[ ]	[ ]

019	[X] Substantially identical to outfall: 018	[X]							☐	☐

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 0.92 hours. Rainfall amount = 0.30 inches.

018: 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.

G. Certification

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

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature: A R Grieggs Date 10/20/2016

E-mail: 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: NOV 0 3 2016
Symbol: EPC-DO-16-342
LA-UR: 16-28480
Locates Action No.: N/A

U.S. EPA Region 6
NPDES Stormwater Program (WQ-PP)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

To whom it may concern:

Subject: National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR053195, Multi-Sector General Permit (MSGP) Industrial Discharge Monitoring Reports (MDMRs) for August 24 and 27, 2016

Enclosed are Los Alamos National Laboratory's MDMRs (Enclosure 1) for August 24 and 27, 2016, as required under MSGP Permit Tracking No. NMR053195. These reports are being submitted on behalf of Los Alamos National Security LLC and contain analytical results for impaired waters and quarterly benchmark monitoring at outfalls 018 and 012.

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

Sincerely,

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

ARG:TWL:HLW/hw

Enclosure: 1. NPDES Permit Tracking No. NMR053195, MDMRs for August 24 and 27, 2016

Cy: Helen Nguyen, EPA Region 6, Dallas TX (E-File)
Nasim Jahan, EPA Region 6, Dallas TX (E-File)
Michelle Hunter, NMED/GWQB, Santa Fe, NM (E-File)
Shelly Lemon, NMED/SWQB, Santa Fe, NM (E-File)
Craig S. Leasure, PADOPS, (E-File)
William R. Mairson, PADOPS, (E-File)
Michael T. Brandt, ADESH, (E-File)
Raeanna Sharp-Geiger, ADESH, (E-File)
Karen Armijo, DOE, (E-File)
Terrill W. Lemke, EPC-CP, (E-File)
Holly L. Wheeler, EPC-CP, (E-File)
Leslie J. Dale, EPC-CP, (E-File)
Ellena I. Martinez, EPC-DP, (E-File)
Saundra Martinez, ADEM-PO, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov

ENCLOSURE 1

NPDES Permit Tracking No. NMR053195, MDMRs
for August 24 and 27, 2016

EPC-DO-16-342

LA-UR-16-28480

Date: NOV 0 3 2016

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

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

Waiver granted:
- [ ] The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.
- [X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

- [X] Submitting monitoring data (Fill in all Sections).
- [ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).
- [ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment fiel in Section F.4).
- [ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).
- [ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

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

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

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

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period:

[X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 - March 31)	[ ] Quarter 1: From	04 / 01 To 05 / 31
[ ] Quarter 2 (April 1 - June 30)	[ ] Quarter 2: From	06 / 01 To 07 / 31
[ ] Quarter 3 (July 1 - September 30)	[X] Quarter 3: From	08 / 01 To 09 / 30
[ ] Quarter 4 (October 1 - December 31)	[ ] Quarter 4: From	10 / 01 To 11 / 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 2 2.b. Rainfall amount (inches): 0.4 2.c. Time since previous measurable storm event (days): 11

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?
018	[ ] Substantially identical to outfall:	[ ]	QBM	Copper, dissolved	4.96	ug/L		08/24/2016	[ ]	[ ]
018	[ ] Substantially identical to outfall:	[ ]	QBM	Zinc, dissolved	787	ug/L		08/24/2016	[ ]	[ ]
013	[X] Substantially identical to outfall: 018	[X]							[ ]	[ ]
014	[X] Substantially identical to outfall: 018	[ ]							[ ]	[ ]
015	[X] Substantially identical to outfall: 018	[ ]							[ ]	[ ]
016	[X] Substantially identical to outfall: 018	[X]							[ ]	[ ]
017	[X] Substantially identical to outfall: 018	[ ]							[ ]	[ ]
019	[X] Substantially identical to outfall: 018	[X]							[ ]	[ ]

(QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 1.58 hours. Rainfall amount = 0.35 inches.

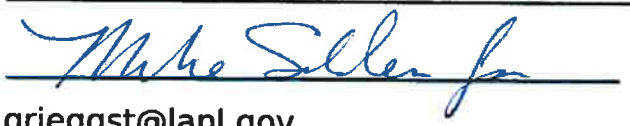
018: The average concentration of dissolved Zinc is mathematically certain to exceed the benchmark value. Adjusted Gross Alpha (I) - NODI 9. Aluminum, total recoverable (I) - NODI 9. Aroclor, total (I) - NODI B. Thallium, dissolved (I) - NODI B. Copper, dissolved (I) - NODI 9.

G. Certification

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

First Name, Middle Initial, Last Name: Anthony R Grieggs

Title: EPC-CP Group Leader

Signature: 

Date 11/03/2016

E-mail: grieggst@lanl.gov

NPDES FORM 6100-29	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	Form Approved. OMB No. 2040-0004

A. Approval to User Paper DMR Form

1. Have you been granted a waiver from electronic reporting from EPA Regional Office*? [X] YES [ ] NO

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

Waiver granted:
- [ ] The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.
- [X] The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver: Everett Spencer

Date approval obtained: 06/17/2016

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at http://www.epa.gov/netdmr/**

B. Permit Information

1. NPDES ID: NMR053195

2. Reason(s) for Submission (Check all that apply):

- [X] Submitting monitoring data (Fill in all Sections).
- [ ] Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).
- [ ] Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, C, D, and F and include date of status change in comment fiel in Section F.4).
- [ ] Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section F.4).
- [ ] Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B, C, D, and G).

C. Facility Operator Information

1. Operator Information

Operator Name: Los Alamos National Security, LLC

Mailing Address:

Street: P.O. Box 1663, MS K490

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

Phone: 505 667 0666

E-mail: grieggst@lanl.gov

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

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

Organization: EPC-CP

Phone: 505 667 1312 Ext.

E-mail: hbenson@lanl.gov

D. Facility Information

1. Facility Name: Los Alamos National Laboratory

2. Facility Address:

Street/Location: Bikini Atoll Rd. SM30 K490

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

County or Similar Government Subdivision: Los Alamos

E. Discharge Information

1. Identify monitoring period: [X] Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

[ ] Quarter 1 (January 1 – March 31)	[ ] Quarter 1: From	04	/ 01	To	05	/ 31
[ ] Quarter 2 (April 1 – June 30)	[ ] Quarter 2: From	06	/ 01	To	07	/ 31
[ ] Quarter 3 (July 1 – September 30)	[X] Quarter 3: From	08	/ 01	To	09	/ 30
[ ] Quarter 4 (October 1 – December 31)	[ ] Quarter 4: From	10	/ 01	To	11	/ 30

2. Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc in freshwater? [X] Yes (Skip to 3) [ ] No (Skip to 4)

3. What is the hardness level of the receiving water? 57

4. Does your facility discharge into any saltwater receiving waters? [ ] Yes [X] No

F. Monitoring Information

Note: Make additional copies of this form as necessary.

1. Nature of Discharge: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 2 2.b. Rainfall amount (inches): 0.8 2.c. Time since previous measurable storm event (days): 3

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
012	[ ] Substantially identical to outfall:	[ ]	I	Adjusted Gross Alpha	.519	pCi/L		08/27/2016	[ ]	[ ]
012	[ ] Substantially identical to outfall:	[ ]	QBM	Iron, total	219	ug/L		08/27/2016	[ ]	[ ]
011	[X] Substantially identical to outfall: 012	[X]							[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

Rainfall duration = 2.17 hours. Rainfall amount = 0.85 inches.

012: 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: [X] Rainfall (Complete line items 2.a., 2.b., & 2.c.) [ ] Snowmelt

2.a. Duration of the rainfall event (hours): 2 2.b. Rainfall amount (inches): 0.8 2.c. Time since previous measurable storm event (days): 3

3.a. Outfall ID (list the same 3-digit outfalls identified on the NOI form)	3.b. Check if Any Outfalls are Substantially Identical to Other Outfalls Listed	3.c. Check if No Discharge	3.d. Monitoring Type QBM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quality or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance due to natural background pollutant levels	3.k. No further pollutant reductions achievable?
018	[ ] Substantially identical to outfall:	[ ]	QBM	Nitrate plus Nitrite Nitrogen	BQL		0.050 mg/L	08/27/2016	[ ]	[ ]
013	[X] Substantially identical to outfall: 018	[ ]							[ ]	[ ]
014	[X] Substantially identical to outfall: 018	[ ]							[ ]	[ ]
015	[X] Substantially identical to outfall: 018	[ ]							[ ]	[ ]
016	[X] Substantially identical to outfall: 018	[ ]							[ ]	[ ]
017	[X] Substantially identical to outfall: 018	[ ]							[ ]	[ ]
019	[X] Substantially identical to outfall: 018	[X]							[ ]	[ ]

* (QBM) - Quarterly benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

018: 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.

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 11/03/2016

E-mail: grieggst@lanl.gov

Appendix F – Corrective Action Log

(See next page)

Insp Id	CA Number	Insp Date	RCRA Notify Date	Specific Location	Inspector	Problem Description	Corrective Action Description	Completed	Finding Other Desc	Inspection Type Other	SWPPP Modify	CA Initiate Date	CA Expected Date	CA Complete Date	Ca Status Desc
894	46387	28-Mar-16	28-Mar-16	TA-3-66 Sigma Complex	172470	Metal shavings on ground next to metal recycle bin need to be addressed.	Metal shavings have been vacuumed up and a magnet was also used to remove metal shavings. MST-6 has been made aware of finding to address.	Y	-	-	N	28-Mar-16	-	28-Mar-16	N/A
893	46383	28-Mar-16	28-Mar-16	TA-3-66 Sigma Complex	172470	Trash along east fence line east of TA-3-141 needs to be picked up.	Trash was picked up.	Y	Housekeeping	-	N	28-Mar-16	-	28-Mar-16	N/A
919	46832	22-Jun-16	22-Jun-16	Northside of bldg. 66 graphite drum collection area	172470	Graphite dust is on the ground on the Northside of bldg. 66 graphite area.	Graphite dust was swept up.	Y	Housekeeping and polluntant control	-	N	22-Jun-16	-	22-Jun-16	N/A
927	47191	7-Jul-16	7-Jul-16	Outfall 018 at TA-3-66 Sigma Complex	118432	At outfall 018 at the TA-3-66 Sigma Complex, the average concentration of dissoved Zinc was mathematically certain to exceed the benchmark value. This occurred during the storm event on 4/18/2016.	The facility must immediately take action to minimize off site discharge of Zinc at outfall 018 followed by implementation of specific follow-up actions within 14 days (if additional action is needed). If finalization of corrective action(s) exceeds 14 days, documentation of why it is infeasible to complete the corrective action within the 14 day timeframe must be provided along with a schedule for completion. Since outfall 018 has associated substantially identical outfalls (SIOs), the facility must assess the need for corrective action for all related SIOs (outfalls 013, 014, 015, 016, 017 and 019). Walkdown done by TA-3-66 Sigma Division Leader on 7/8/16. Another walk down occurred on 7/11/16 by STO-DEP and Sigma Division Leader. Identified several potential zinc galvanized items i.e. fenceline, guardrails, sampling weir etc. No obvious or blatant zinc sources identified. Meeting was held with EPC-CP representatives Holly Wheeler and Brad Schilling, STO DEP Marc Gallegos, and Sigma Division Leader Paul Dunn. to discuss exceedance, and analytical trending results of Zinc at that location. The conclusion was that perminant features such as the fence and weir were not the source due to the elevated concentration in this sample. Was determined that we will evaluate samples after April 2016 event and re-evaluate.	Y	-	-	N	7-Jul-16	-	19-Jul-16	N/A
947	48552	28-Jul-16	3-Aug-16	TA-3-66 Southside of dock area	172470	Metal support plates are not covered.	Metal support plates were covered with tarps.	Y	Housekeeping	3rd Qtr Inspection	N	28-Jul-16	-	29-Jul-16	N/A
946	48548	28-Jul-16	3-Aug-16	TA-3-66 Sigma Southside Storm Drain	172470	Southside storm drain is plugged with debris and sediment.	Storm drain has been cleaned and cleared.	Y	-	3rd Qtr Inspection	N	28-Jul-16	-	2-Aug-16	N/A
981	49501	7-Oct-16	7-Oct-16	Outfall 020 at the TA-3-66 Sigma Complex	118432	The average concentrations of dissolved Zinc discharged from outfalls 018 and 020 at the TA-3-66 Sigma Complex were mathematically certain to exceed the benchmark value. These averages were calculated from monitoring results associated with storm events occurring on 7/01/2016, 7/21/2016 and 8/03/2016 for outfall 020 and 8/08/2016 for outfall 018.	Facility personnel must immediately take action to minimize off site discharge of the dissolved Zinc at outfalls 018 and 020 followed by implementation of specific follow-up actions within 14 days (if additional action is needed). If finalization of corrective action(s) exceeds 14 days, documentation of why it is infeasible to complete the corrective action within the 14 day timeframe must be provided along with a schedule for completion. Since outfall 018 has associated substantially identical outfalls (SIOs), facility personnel must also assess the need for corrective action for all related SIOs (outfalls 013, 014, 015, 016, 017, and 019). If a SWPPP modification is required as a result of these exceedance it must be implemented within 14 days of completing corrective action work. Potential source of zinc can be attributed to higher vehicle traffic. IP Permit BMP work has been completed to contain more stormwater. DEP also did a walk down.	Y	-	-	Y	7-Oct-16	-	18-Oct-16	N/A
987	49839	18-Oct-16	18-Oct-16	TA-3-66 West of Butler Bldg. TA-3-169	172470	Warm water coming up from the asphalt. Suspect steam condensate line is leaking.	The leak was stopped by shutting the valve to the pit and the line on 10/19/2016. An Excavation Permit (EX-ID 16X-0879) was submitted and subsequently approved on 10/28/2016. The condensate line repair in SM 66 East of steam man hole 1035 will start on Monday, Nov. 7th, 2016 and should be complete by Wed. the 16th due to the short week for Veterans Day. A new 2 inch carbon pipe was installed and welded in on 11/17/2016.	Y	-	-	N	18-Oct-16	-	17-Nov-16	N/A
995	50796	8-Nov-16	8-Nov-16	Outfall 018 at the TA-3-66 Sigma Complex	118432	The average concentration of dissolved Zinc discharged from outfall 018 at the TA-3-66 Sigma Complex was mathematically certain to exceed the benchmark value. This average was calculated from monitoring results associated with the storm events occurring on August 24, 2016.	STO Deployed Env. Professional walked down the facility area to identify any zinc sources. Unable to identify any obvious ones. Will continue to asses the area and address ways to minimize future discharges.	Y	-	-	N	8-Nov-16	-	16-Nov-16	N/A
1044	52089	12-Dec-16	12-Dec-16	-	210081	West of TA-3-66, there is graphit dust present in the channel.	The graphit dust was swept out of the channel.	Y	-	-	N	12-Dec-16	-	14-Dec-16	N/A
1043	52070	12-Dec-16	12-Dec-16	North side of TA-3-141 within the TA-3-66 Sigma Facility	210081	Within the TA-3-66 Sigma Facility, on the north side of TA-3-141, stock machined metal on pallets needs to be covered or moved inside.	The metal was covered with a tarp.	Y	-	-	N	12-Dec-16	-	14-Dec-16	N/A
1042	52061	12-Dec-16	12-Dec-16	Southwest corner of the site by outfall 013	210081	At the southeast corner of the TA-3-66 Sigma Facility, the drop inlet discharging to outfall 013 needs to be cleaned out.	Clean out the drop inlet that discharges stormwater to outfall 013. A Facility Service Request was submitted. The drop inlet was cleaned out on 12/22/2016.	Y	-	-	N	12-Dec-16	-	22-Dec-16	N/A

Appendix G – 2015 MSGP

(Maintained on LANL site premises)

Appendix H– SWPP Plan Modifications Log

SWPPP Amendment Log

SWPPP Amendment Log

Date of Amendment	Plan Section	Reason for Amendment	Amendment	PE Certification needed?
Jan. 26, 2017	Various	Annual update	Attached all inspections, reports, MDMR's, data records, etc; text corrections, updates, additions to appendices.	No

Appendix I – Storm Water Monitoring Data, Discharge Monitoring Reports, Visual Sampling Events and Results, and Non-Storm Water Discharge Assessment and Certification

(Storm Water Monitoring Data, Discharge Monitoring Reports, Visual Sampling Events and Results Maintained on LANL site premises)

Permitted Facility: TA-3-66 Sigma Complex

Outfalls: 017 (3-Sigma-6), 020 (3-Sigma-8)

Monitored outfall 018 was permanently plugged during site control measures installation in December 2016. Former substantially identical outfall 017 was re-assigned as the new monitored outfall effective at the beginning of the 2017 calendar year.

Outfall	Monitoring Requirement	Industrial Sector	Assessment Unit	Analyte	Filtered/ Unfiltered	Regulatory Standard	Units	Regulatory Standard Type	Regulatory Standard Reference
017	Impaired Waters	-	NM-9000.A_047	Total Aroclors	UF	0.00064	ug/L	NM 2010 HH Persistent	20.6.4.900 NMAC Subpart J
	Impaired Waters/ Quarterly Benchmark	AA	NM-9000.A_047	Al	F10u[1]	681	ug/L	NM 2010 Aquatic Chronic 60 mg	20.6.4.900 NMAC Subpart I
	Impaired Waters/ Quarterly Benchmark	AA/F	NM-9000.A_047	Cu	F[2]	6	ug/L	NM 2010 Aquatic Chronic 60 mg	20.6.4.900 NMAC Subpart I
	Impaired Waters	-	NM-9000.A_047	Adjusted Gross Alpha	UF	15	pCi/L	NM 2010 Livestock Watering	20.6.4.900 NMAC Subpart J
	Impaired Waters	-	NM-9000.A_047	Tl	F	0.47	ug/L	NM 2010 HH Persistent	20.6.4.900 NMAC Subpart J
	Quarterly Benchmark	AA	-	Fe	UF	1000	ug/L	MSGP QBM 2015	NMR053195 Sect 9.6.2.1
	Quarterly Benchmark	AA	-	NO3+NO2-N	UF	0.68	mg/L	MSGP QBM 2015	NMR053195 Sect 9.6.2.1
	Quarterly Benchmark	AA/F	-	Zn	F	76	ug/L	NM 2010 Aquatic Chronic 60 mg	20.6.4.900 NMAC Subpart I
020	Impaired Waters/ Quarterly Benchmark	AA	NM-9000.A_047	Al	F10u	681	ug/L	NM 2010 Aquatic Chronic 60 mg	20.6.4.900 NMAC Subpart I
	Impaired Waters/ Quarterly Benchmark	AA/F	NM-9000.A_047	Cu	F	6	ug/L	NM 2010 Aquatic Chronic 60 mg	20.6.4.900 NMAC Subpart I
	Quarterly Benchmark	AA	-	Fe	UF	1000	ug/L	MSGP QBM 2015	NMR053195 Sect 9.6.2.1
	Quarterly Benchmark	AA	-	NO3+NO2-N	UF	0.68	mg/L	MSGP QBM 2015	NMR053195 Sect 9.6.2.1
	Quarterly Benchmark	AA/F	-	Zn	F	76	ug/L	NM 2010 Aquatic Chronic 60 mg	20.6.4.900 NMAC Subpart I

[1]F10u - 10 µm filter

[2]F - 0.45 µm filter

Section 2.5 Sampling Data Summary

CY 2016

Monitored outfall 018 was permanently plugged during site control measures installation in December 2016. Former substantially identical outfall 017 was re-assigned as the new monitored outfall effective at the beginning of the 2017 calendar year. As outfall 017 was an SIO during 2016, no monitoring data are available.

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. 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.
020	—	Total Aroclors; Tl, Adjusted Gross Alpha	Fe, NO3+NO2-N, Al, Cu	Zn	—	Al, Cu	—

Non Storm water Discharge Certification

NON-STORMWATER DISCHARGE

ASSESSMENT AND CERTIFICATION Sigma TA-3-66 Facility

Completed by: Marc R. Gallegos
Title: Delegated ENV Professional
Date: 8/25/15

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
8/25/15	All	None	Walk down of facility	No	N/A	Non 2015 MSGP Permit

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

Name & Official Title: DSESH-STO ESH MANAGER

Signature:

Date Signed: 8-26-15

Appendix J-Referenced Documents

(Included at end of document)

Appendix K-Monitoring Data

Location ID	Date Sampled	Parameter Name	Report Result	Report Units	Detected
03-0141E	04/04/2012	Zinc	11.8	ug/L	Y
03-0141E	04/04/2012	Mercury	0.2	ug/L	N
03-0141E	04/04/2012	Aluminum	822	ug/L	Y
03-0141E	04/04/2012	Aroclor-1016	0.105	ug/L	N
03-0141E	04/04/2012	Aroclor-1262	0.105	ug/L	N
03-0141E	04/04/2012	Aroclor-1242	0.0748	ug/L	Y
03-0141E	04/04/2012	Aroclor-1254	0.105	ug/L	N
03-0141E	04/04/2012	Aroclor-1260	0.105	ug/L	N
03-0141E	04/04/2012	Aroclor-1221	0.105	ug/L	N
03-0141E	04/04/2012	Aroclor-1232	0.105	ug/L	N
03-0141E	04/04/2012	Aroclor-1248	0.105	ug/L	N
03-0141E	04/04/2012	Gross alpha	1.9	pCi/L	N
03-0141E	04/04/2012	Copper	2.71	ug/L	Y
03-0141E	07/07/2012	Copper	8.59	ug/L	Y
03-0141E	07/07/2012	Zinc	47.2	ug/L	Y
03-0141E	08/02/2012	Zinc	44.7	ug/L	Y
03-0141E	08/02/2012	Copper	7.51	ug/L	Y
03-0141E	10/12/2012	Copper	9.71	ug/L	Y
03-0141E	10/12/2012	Zinc	49.2	ug/L	Y
03-0141E	06/14/2013	Aroclor-1248	0.114	ug/L	N
03-0141E	06/14/2013	Aroclor-1221	0.114	ug/L	N
03-0141E	06/14/2013	Aroclor-1232	0.114	ug/L	N
03-0141E	06/14/2013	Aroclor-1260	0.114	ug/L	N
03-0141E	06/14/2013	Aroclor-1254	0.114	ug/L	N
03-0141E	06/14/2013	Aroclor-1262	0.114	ug/L	N
03-0141E	06/14/2013	Aroclor-1242	0.114	ug/L	N
03-0141E	06/14/2013	Aroclor-1016	0.114	ug/L	N
03-0141E	05/15/2015	Thallium	0.45	ug/L	N

Appendix L-NOIs, Delegation of Authority Letter, and 45 Day Extension

(See next page)

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 willl 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 * | 5. State * | 6. Zip Code * | 7. Facility County or Similar Govt. Subdivision *

Los Alamos | NM | 87545 | Los Alamos

8. Phone (10-digits, No dashes) * | 9. Extension | 10. E-Mail *

5056671312 | | hbenson@lanl.gov

Operator point of contact information

11. First Name * | 12. Middle Initial | 13. Last Name * | 14. Professional Title *

Holly | | Wheeler | 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) *		9. Longitude (Decimal Degrees) *	10. Latitude/Longitude Data Source *	11. Horizontal Reference Datum
+	35.872777	-	106.321127	Other	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 sectors(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 K: HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL FACILITIES	K1: Hazardous Waste Treatment, Storage, or Disposal Facilities, including those that are operati	Delete Sector
SECTOR A: TIMBER PRODUCTS	A4: Wood Products, Not Elsewhere Classified	Delete Sector
SECTOR D: ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1: Asphalt Paving and Roofing Materials	Delete Sector
SECTOR O: STEAM ELECTRIC GENERATING FACILITIES	O1: Steam Electric Generating Facilities, including coal handling sites	Delete Sector
SECTOR F: PRIMARY METALS	F4: Nonferrous Foundries (Castings)	Delete Sector
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? * ◯ Yes ◉ 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? * ◯ Yes ◉ 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? * ◉ 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) *
002	+	35.875801	-	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 *	Pollutant *	
METALS (OTHER THAN MERCURY)	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) *
003	+	35.876369	-	106.326492

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 *

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 *		B. Latitude (Decimal Degrees) *		C. Longitude (Decimal Degrees) *
005	+	35.873908	-	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 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 *

006

+

B. Latitude (Decimal Degrees) *

35.874002

-

C. Longitude (Decimal Degrees) *

106.319825

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 *

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

(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 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) *

+ | 35.874095

C. Longitude (Decimal Degrees) *

- | 106.319009

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 *

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 *		B. Latitude (Decimal Degrees) *		C. Longitude (Decimal Degrees) *
008	+	35.874306	-	106.318891

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 *

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 *

010

+

B. Latitude (Decimal Degrees) *

35.874014

-

C. Longitude (Decimal Degrees) *

106.318428

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 *

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

(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 * | Pollutant *

METALS (OTHER THAN MERCURY) | 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) *

004 | + | 35.871465 | - | 106.323844

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.) *

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 *

METALS (OTHER THAN MERCURY) | Aluminum, total [as Al]

Delete Pollutant

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

Cause Group * | Pollutant *

RADIATION | Alpha, total

Delete Pollutant

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

Cause Group * | Pollutant *

POLYCHLORINATED BIPHENYLS (PCBS) | 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 * | B. Latitude (Decimal Degrees) * | C. Longitude (Decimal Degrees) *

018 | + | 35.872781 | - | 106.317616

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 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) *
014	+	35.870641	-	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 *	Pollutant *	
METALS (OTHER THAN MERCURY)	Aluminum, total [as Al]	Delete Pollutant

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

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

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

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

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

Cause Group *	Pollutant *	
RADIATION	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 *		B. Latitude (Decimal Degrees) *		C. Longitude (Decimal Degrees) *
013	+	35.870783	-	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 *	Pollutant *	
METALS (OTHER THAN MERCURY)	Aluminum, total [as Al]	Delete Pollutant

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

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

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

Cause Group *	Pollutant *	
RADIATION	Alpha, total	Delete Pollutant

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

Cause Group *	Pollutant *	
POLYCHLORINATED BIPHENYLS (PCBS)	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 *		B. Latitude (Decimal Degrees) *		C. Longitude (Decimal Degrees) *
015	+	35.871403	-	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 *	Pollutant *	
METALS (OTHER THAN MERCURY)	Aluminum, total [as Al]	Delete Pollutant

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

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

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

Cause Group *	Pollutant *	
RADIATION	Alpha, total	Delete Pollutant

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

Cause Group *	Pollutant *	
POLYCHLORINATED BIPHENYLS (PCBS)	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 *		B. Latitude (Decimal Degrees) *		C. Longitude (Decimal Degrees) *
016	+	35.872553	-	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 *	Pollutant *	
METALS (OTHER THAN MERCURY)	Aluminum, total [as Al]	Delete Pollutant

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

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

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

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

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

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

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

Cause Group *	Pollutant *	
RADIATION	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 *		B. Latitude (Decimal Degrees) *		C. Longitude (Decimal Degrees) *
017	+	35.872752	-	106.317329

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

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

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

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

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

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

Cause Group *	Pollutant *	
POLYCHLORINATED BIPHENYLS (PCBS)	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

(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 *: 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 *		B. Latitude (Decimal Degrees) *		C. Longitude (Decimal Degrees) *
051	+	35.830145	-	106.242675

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.) *

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

(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.) *

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 *		B. Latitude (Decimal Degrees) *		C. Longitude (Decimal Degrees) *
020	+	35.872251	-	106.316273

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:

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

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

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

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

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

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

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

Cause Group *	Pollutant *	
POLYCHLORINATED BIPHENYLS (PCBS)	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 *: eprr.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

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 willl 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 * | 5. State * | 6. Zip Code * | 7. Facility County or Similar Govt. Subdivision *

Los Alamos | NM | 87545 | Los Alamos

8. Phone (10-digits, No dashes) * | 9. Extension | 10. E-Mail *

5056671312 | | hbenson@lanl.gov

Operator point of contact information

11. First Name * | 12. Middle Initial | 13. Last Name * | 14. Professional Title *

Holly | | Wheeler | 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) *		9. Longitude (Decimal Degrees) *	10. Latitude/Longitude Data Source *	11. Horizontal Reference Datum
+	35.872777	-	106.321127	Other	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 sectors(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 K: HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL FACILITIES	K1: Hazardous Waste Treatment, Storage, or Disposal Facilities, including those that are operati	Delete Sector
SECTOR A: TIMBER PRODUCTS	A4: Wood Products, Not Elsewhere Classified	Delete Sector
SECTOR D: ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1: Asphalt Paving and Roofing Materials	Delete Sector
SECTOR O: STEAM ELECTRIC GENERATING FACILITIES	O1: Steam Electric Generating Facilities, including coal handling sites	Delete Sector
SECTOR F: PRIMARY METALS	F4: Nonferrous Foundries (Castings)	Delete Sector
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? * ◯ Yes ◉ 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? * ◯ Yes ◉ 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? * ◉ 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) *
002	+	35.875801	-	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 *	Pollutant *	
METALS (OTHER THAN MERCURY)	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) *
003	+	35.876369	-	106.326492

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 *

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 *		B. Latitude (Decimal Degrees) *		C. Longitude (Decimal Degrees) *
005	+	35.873908	-	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 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 *

006

+

B. Latitude (Decimal Degrees) *

35.874002

-

C. Longitude (Decimal Degrees) *

106.319825

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 *

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

(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 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) *

+ | 35.874095

C. Longitude (Decimal Degrees) *

- | 106.319009

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 *

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 *		B. Latitude (Decimal Degrees) *		C. Longitude (Decimal Degrees) *
008	+	35.874306	-	106.318891

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 *

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 *

010

+

B. Latitude (Decimal Degrees) *

35.874014

-

C. Longitude (Decimal Degrees) *

106.318428

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 *

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

(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 * | Pollutant *

METALS (OTHER THAN MERCURY) | 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) *

004 | + | 35.871465 | - | 106.323844

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.) *

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 *

METALS (OTHER THAN MERCURY) | Aluminum, total [as Al]

Delete Pollutant

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

Cause Group * | Pollutant *

RADIATION | Alpha, total

Delete Pollutant

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

Cause Group * | Pollutant *

POLYCHLORINATED BIPHENYLS (PCBS) | 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 * | B. Latitude (Decimal Degrees) * | C. Longitude (Decimal Degrees) *

018 | + | 35.872781 | - | 106.317616

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 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) *
014	+	35.870641	-	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 *	Pollutant *	
METALS (OTHER THAN MERCURY)	Aluminum, total [as Al]	Delete Pollutant

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

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

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

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

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

Cause Group *	Pollutant *	
RADIATION	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 *		B. Latitude (Decimal Degrees) *		C. Longitude (Decimal Degrees) *
013	+	35.870783	-	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 *	Pollutant *	
METALS (OTHER THAN MERCURY)	Aluminum, total [as Al]	Delete Pollutant

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

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

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

Cause Group *	Pollutant *	
RADIATION	Alpha, total	Delete Pollutant

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

Cause Group *	Pollutant *	
POLYCHLORINATED BIPHENYLS (PCBS)	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 *		B. Latitude (Decimal Degrees) *		C. Longitude (Decimal Degrees) *
015	+	35.871403	-	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 *	Pollutant *	
METALS (OTHER THAN MERCURY)	Aluminum, total [as Al]	Delete Pollutant

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

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

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

Cause Group *	Pollutant *	
RADIATION	Alpha, total	Delete Pollutant

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

Cause Group *	Pollutant *	
POLYCHLORINATED BIPHENYLS (PCBS)	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 *		B. Latitude (Decimal Degrees) *		C. Longitude (Decimal Degrees) *
016	+	35.872553	-	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 *	Pollutant *	
METALS (OTHER THAN MERCURY)	Aluminum, total [as Al]	Delete Pollutant

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

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

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

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

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

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

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

Cause Group *	Pollutant *	
RADIATION	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 *		B. Latitude (Decimal Degrees) *		C. Longitude (Decimal Degrees) *
017	+	35.872752	-	106.317329

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

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

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

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

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

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

Cause Group *	Pollutant *	
POLYCHLORINATED BIPHENYLS (PCBS)	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

(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 *: 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 *		B. Latitude (Decimal Degrees) *		C. Longitude (Decimal Degrees) *
051	+	35.830145	-	106.242675

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.) *

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

(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.) *

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 *		B. Latitude (Decimal Degrees) *		C. Longitude (Decimal Degrees) *
020	+	35.872251	-	106.316273

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:

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

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

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

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

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

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

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

Cause Group *	Pollutant *	
POLYCHLORINATED BIPHENYLS (PCBS)	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 *: eprr.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

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.

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

Date: NOV 17 2015
Symbol: ENV-DO-15-0326
LA-UR: 15-28966
Locates Action No.: N/A

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

Dear Ms. Jahan:

Subject: **National Pollutant Discharge Elimination System (NPDES) Permit Tracking No. NMR053195, Multi-Sector General Permit (MSGP) 45 Day Extension Notification Pursuant to Part 4.3.2**

In accordance with Part 4.3.2 of the 2015 NPDES Multi-Sector General Permit, the purpose of this letter is to notify EPA Region 6 personnel that completion of corrective actions for three items at Los Alamos National Laboratory (MSGP Tracking No. NMR053195) will exceed 45 days. For each of these items, the rationale for an extension and a proposed completion date are included in the Table 1, below.

Table 1 – MSGP Corrective Action 45 Day Extensions

LANL Tracking #	Condition Requiring Corrective Action	Rationale for Extension	Proposed Completion Date
778	The channel on the south end of the lower yard at the TA-60 Heavy Equipment Yard needs to be cleaned out and re-established. There is one point in the channel by a Chinese Elm tree that the water is bypassing the channel.	This corrective action is being addressed through LANL's institutional computer-based Facility Service Request (FSR) system, which utilizes multiple inputs for prioritizing work. However, the FSR system is not currently designed to recognize or accept MSGP corrective action as an input for work prioritization. This affects work scheduling and execution. The inability	12/04/2015

		of the LANL FSR system to prioritize MSGP corrective actions is being recognized at this time (management system policy and procedures). This corrective action is being scheduled for completion.	
792	Water was discharging from a leak in the steam condensate line into a drainage swale east of TA-3-66.	This corrective action is being addressed through LANL's institutional computer-based FSR system. The LANL Utilities Organization responsible for the work is also currently addressing multiple steam leaks across the LANL site. The FSR system utilizes multiple inputs for prioritizing work, however, it is not currently designed to recognize or accept MSGP corrective action as an input for work prioritization. This affects work scheduling and execution. The responsiveness of the LANL work control system to prioritize MSGP corrective actions is being recognized at this time (management system policy and procedures). The Utilities Organization is preparing a work package and will schedule the work in the near future.	11/25/2015
845	At TA-60 Roads and Grounds east, there is a pile of soil, tuff, asphalt, and concrete mixed with metal bollards staged north of Eniwetok Road.	The work crew is still segregating the material to identify content acceptable for recycling and material requiring disposal. This process requires development and evaluation of an internal waste profile, which is currently in process.	11/24/2015

If you have any questions or need additional information, please contact Terrill Lemke at (505) 665-2397.

Sincerely,

Alison M. Dorries
Division Leader
Environmental Protection Division
Los Alamos National Security, LLC

AMD:TWL:HLW/lm

Cy: Bruce Yurdin, NMED/SWQB, Santa Fe, NM, (E-File)
Gene E. Turner, LASO-NS-LP, (E-File)
Jorden Arnswald, 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)
Terrill W. Lemke, 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

Appendix M – Training Records

(See next page)

PLATEAU

Item Status Group By Items

Items

Item: RR 35958 (Rev 1 - 1/12/2017 12:06 PM MT)

Description: Stormwater Pollution Prevention Plan

Users

User ID (Z#)	User Name	Completion Date	Status
084320	Morrison, Terry A	1/13/2017 01:58 PM MT	Completed
090753	Vargas, Victor Duane	1/18/2017 08:16 AM MT	Completed
096683	DeAguero, Sandra V	1/12/2017 12:31 PM MT	Completed
096683	DeAguero, Sandra V	1/12/2017 01:04 PM MT	Completed
096831	Dunn, Paul Stanton	1/17/2017 07:50 AM MT	Completed
099851	Garcia, Darryl Charles	1/13/2017 11:24 AM MT	Completed
106571	Garcia, Frank Julio	1/17/2017 05:59 PM MT	Completed
110010	Stafford, Darrik Gary	1/17/2017 04:21 PM MT	Completed
110150	Lopez, Eric A	1/18/2017 11:11 AM MT	Completed
112537	Cordova, Floyd C	1/19/2017 02:18 PM MT	Completed
153674	Espinoza, Arturo P	1/18/2017 02:46 PM MT	Completed
172470	Gallegos, Marc Raymond	1/19/2017 10:41 AM MT	Completed
186477	Allen, Randi Beth Ann	1/17/2017 02:33 PM MT	Completed
192030	Krause, Mark Richard	1/13/2017 08:01 AM MT	Completed
239331	Perkins, Courtney Ann	1/18/2017 08:40 AM MT	Completed
292041	Telles, Amber C	1/17/2017 12:55 PM MT	Completed
312475	Gonzales, James Kirk	1/17/2017 04:53 PM MT	Completed

Total Completions: 17

ENV-CP-QP-007	Revision: 10	Los Alamos NATIONAL LABORATORY EST. 1943
Effective Date: 09/30/15	Next Review Date: 09/30/18	

Environment, Safety, Health Directorate

Environmental Protection – Compliance Programs

Quality Procedure

Spill Investigations

Reviewers:

Name:	Organization:	Signature:	Date:
Brian M. Iacona	EPC-CP	Signature on File	08/13/15
Name:	Organization:	Signature:	Date:
Jacob W. Meadows	EPC-CP	Signature on File	08/28/15

Derivative Classifier: ☒ **Unclassified** ☐ **DUSA** **ENVPRO**

Name:	Organization:	Signature:	Date:
Gian A. Bacigalupa	EPC-CP	Signature on File	08/31/15

Approval Signatures:

Subject Matter Expert:	Organization:	Signature:	Date:
Jacob W. Meadows	EPC-CP, Program Lead	Signature on File	08/31/15
Responsible Line Manager:	Organization:	Signature:	Date:
Michael T. Saladen	EPC-CP, Team Leader	Signature on File	08/31/15
Responsible Line Manager:	Organization:	Signature:	Date:
Anthony R. Grieggs	EPC-CP, Group Leader	Signature on File	09/30/15

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History of Revisions

Document Number *[Include revision number, beginning with Revision 0]*	**Effective Date** *[Document Control Coordinator inserts effective date]*	**Description of Changes** *[List specific changes made since the previous revision]*
0	12/98	New Document.
1	06/00	Annual review, added Cerro Grande fire hazards
2	07/01	Annual review
3	06/03	Annual review
4	04/04	Annual review, changes to HCPs
5	02/07	Annual review, changes to reflect organizational restructure
6	07/08	Annual review
7	09/10	Biennial Review and revision
8	04/11	Removed prerequisites, added note re: on-call spill reporting.
9	07/13	Biennial review and revision, implemented new procedure format.
10	09/30/15	Biennial review and revision, implemented new procedure format. Controlled the updated LANL ENV-CP Unplanned Release Report.

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1.0 PURPOSE

This Environmental Protection Division – Compliance Programs Group (EPC-CP) procedure describes processes and implements requirements for spill investigations.

2.0 SCOPE

This procedure applies to all EPC-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:

- ECP-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 EPC-CP Group Leader. This training will be documented in accordance with ENV-DO-QP-115, *Personnel Training*.

Actions specified within this procedure, unless proceeded with “should” or “may,” are to be considered mandatory (i.e., “shall”, “will”, “must”).

3.1 PREREQUISITES

None

4.0 WORK PROCESSES

Responsibility is to assure the immediate mitigation and timely notification of appropriate regulatory organizations in the event of a spill or unplanned discharge that has or may affect the environment. Work requires frequent and unscheduled site visits to any area of the Laboratory during a spill or unplanned release as support staff for the on-scene Security and Emergency Operations (SEO) Incident Commander.

Specific activities associated with Spill Response and Investigation:

- Respond to the spill or unplanned release site;
- Report to the On-Scene SEO Incident Commander and Site Safety Officer;
- Receive site safety requirements;
- Provide decision support;
- Investigate the nature and extent of the spill or unplanned release;

- Evaluate the potential environmental impact to water quality;
- Report the occurrence to the regulatory agencies, if necessary; and
- Provide support to mitigation plan and implementation.

4.1 FIELD ACTIVITY

If the spill or unplanned discharge is determined to be a non-emergency event by SEO response, such as a release of potable water, perform the following steps:

Step	Action
1	Perform a site visit in coordination with the Facility Operations Director designee.
2	Assess potential environmental damage.
3	Provide mitigation measures and requirements.
4	Document the event.
5	Notify regulatory agencies and DOE, if necessary.
6	Facilitate collection of samples, if necessary.

For emergency response, perform the following steps:

Step	Action
1	Report to on-scene commander and await instructions.
2	Perform a site visit in coordination with SEO.
3	Adhere to access requirements as developed by the SEO Site Safety Officer and Incident Commander.
4	Identify and document the source and cause of the release.
5	Provide notification and written report if necessary.
6	Facilitate collection of samples if necessary and safe to do so.

If sample collection is required, contact the following sampling personnel:

- EPC-CP
  - NPDES outfall
  - Sanitary treatment solids
- WM-SVS
  - Wastes and chemical spills (liquid, solid, hazardous)
- ADEP Environmental Remediation Division
  - Surface water
  - Storm water runoff
  - Groundwater
  - Sediments

If WM-SVS will collect the required sample, complete a Request For Analysis (RFA), http://int.lanl.gov/environment/waste/sampling.shtml, to schedule sampling. Specify the analytical suite and turn-around time needed for the sample in the RFA.

4.2 COMMUNICATION

Take a cellular phone that will transmit from the location to be visited. Also take a contact pager to receive messages.

If cellular service is unavailable, use a portable radio set to the appropriate radio frequency.

If in a secure area where cell phone use is prohibited, use the radio. Be sure to have radio checked and authorized for use within secure areas or within the boundaries of the WFO FOD or WX Division. Government-owned cellular phones, with batteries removed, may be brought into the secure area but used only if approval is given by the SEO Incident Commander or FOD or designee. Rules of use for Smartphones and other mobile devices (BlackBerry, iPhones, iPads) can be found on the Computing Communications webpage for mobile devices, http://int.lanl.gov/computing/communications/mobile/index.shtml.

Radio or cellular contact must be established with a designated contact prior to leaving EPC-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 EPC-CP spill response personnel are impacted by facility management work control requirements. Requirements vary between the respective Facility Operations Divisions (FODs) and therefore necessitate EPC-CP response personnel to acquire FOD approval for site access in advance of starting work activities. The exception to this is in response to emergency situations as support to SEO staff.

Should work be required to stop/pause, reference P101-18, *Procedure for Pause/Stop Work*, for guidance.

4.4 FACILITY MANAGEMENT-SPECIFIC ACCESS REQUIREMENTS

4.4.1 HIGH EXPLOSIVES AREAS

TA-16 and TA-11 high explosives areas have specific access requirements. Access inside the security gate requires annual site-specific training. Curricula #5243 must be assigned and all the training courses completed before arriving at TA-16. For access, (normal or after hours) contact the WFO FOD to ensure entry requirements are met and the activity is authorized for the Plan of the Day.

For access to WFO perimeter gates during normal working hours or after hours, contact TA-15 Access Control at 667-6742 and request permission to enter. A perimeter gate key must be picked up at the TA-15 Access Control office. Note that all outdoor firing will be suspended during entry.

For perimeter gates, prior notification for after-hours entry is also required by SOC. Perform the following steps:

Step	Action
1	Call SOC Los Alamos at 667-4437.
2	Identify yourself to the on duty officer or attendant.
3	Provide the following information: Group, color and make of vehicle (s), which perimeter gate you are entering, and approximate time of arrival and finally, length of stay.

Failure to notify security personnel in advance could result in a security violation against the visiting Team Member.

Provide notification to SOC Los Alamos at 667-4437 when leaving area.

For access to WX areas required during normal or after working hours, perform the following steps:

- Ensure the required security clearance (Q clearance) is held, and
- Contact the FOD or designee for entry requirements.

4.4.2 CHEMISTRY METALLURGY RESEARCH FACILITY ACCESS

For access to the Chemistry Metallurgy Research Facility, perform the following:

- Must have the required L or Q clearance to pass the security gate.
- If access into any of the buildings is necessary, contact CMR Operations Management or the FOD for an escort**.**
- If responding to an emergency with SEO, EPC-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, EPC-CP staff will be considered part of the SEO response team, met at the access gate, and escorted to the spill site. Contact the FOD to ensure they are aware of the incident.

4.5 REGULATORY SPILL REPORTING

If a spill is determined to be a threat to the environment or human health, regulatory and DOE notification may be necessary. Contacts and telephone numbers can be found on Attachment 1, EPC-CP Release Notification Phone List.

If a spill impacts a Solid Waste Management Unit (SWMU) or Area of Concern (AOC), contact EPC-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 EPC-CP Unplanned Release Report must be completed (Attachment 2) and submitted to the EPC-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 EPC-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 EPC-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 EPC-CP Unplanned Release Report (Attachment 2) for non-reportable releases.

6.0 DEFINITIONS

AOC: Area of Concern

ER: Environmental Remediation

Field Work: Performance of Laboratory related activities in areas that are removed or isolated from an established populated base of operation (that is, where emergency support and medical assistance is not readily available.)

FOD: Facility Operations Division

NPDES: National Pollutant Discharge Elimination System

OJT : On the job training

PRS: Potential Release Site

SEO: Security and Emergency Operations

SOC Los Alamos: Security contractor for Los Alamos National Laboratory

SWMU: Solid Waste Management Unit

7.0 REFERENCES

None

8.0 ATTACHMENTS

Attachment 1- EPC-CP Release Notification Phone List

Attachment 2- LANL EPC-CP Unplanned Release Report

ATTACHMENT 1- EPC-CP RELEASE NOTIFICATION PHONE LIST

Los Alamos National Laboratory

EPC-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)	EPC-CP Group Office	667-0666
(4)	ENV-DO	667-2211
(5)	LANL Central Alarm Station (SOC-LA)	667-7080
	L.A. Fire Department	667-4055

New Mexico Environment Department

See Web address below

(1)	NMED Emergency Hotline (24 hours a day)	827-9329
(2)	NMED Non-Emergency Hotline (During business hours)	476-6000
	NMED Non-Emergency Hotline (Voicemail; 24 hours a day)	1(866) 428-6535
(3)	NMED Surface Water Quality Bureau	827-0187
	Erin Trujillo	827-0418
(4)	NMED Ground Water Quality Bureau	827-2900
	Greg Huey	827-6891
	Steven Huddleson	827-2936
	Gerald Knutson	827-2996
(5)	NMED Hazardous Waste Bureau	476-6000
	Ruth Horowitz	476-6025

U.S Environmental Protection Agency

(1)	US EPA Region 6 Spill Reporting (During business hours)	1(800) 887-6063
	Emergencies- Contact the NRC	1(800) 424-8802
(2)	Gladys Gooden-Jackson	1(214) 655-7494

U.S. Department of Energy

(1)	Gene Turner	667-5794

State Emergency Response Commission (SERC) Notification

New Mexico State Police	(505) 827-9300 (During business hours)
(Immediate Notification)	(505) 827-3476 (24 hours a day)
New Mexico Department of Homeland Security and Emergency Management (Follow-up Notification)	(505) 476-9600

National Response Center

U.S. Coast Guard National Response Center	1-800-424-8802

See NRC web address below for report form

New Mexico State Police

New Mexico State Police — (505)827-9300 (During business hours)
(505) 827-3476 (24 hours a day)

Local Emergency Planning Committee (LEPC) LAPD

Philmont Taylor — (505) 663-3511

On Call Environmental Contact for Releases
Group Representatives for Notifications to External Agencies

Name	Group	Work Phone	Pager	Cellular Phone	Email address
Jake Meadows	EPC-CP	606-0185	664-1333	231-0460	jmeadows@lanl.gov
Mike Saladen	EPC-CP	665-6085		699-1284	saladen@lanl.gov
Mark Haagenstad	EPC-CP	665-2014		699-1733	mph@lanl.gov
Tim Zimmerly	EPC-CP	664-0105	664-1237	699-7621	tzimmer@lanl.gov
Terrill Lemke	EPC-CP	665-2397		699-0725	tlemke@lanl.gov

Web addresses:
NMED home page http://www.nmenv.state.nm.us
National Response Center home page http://www.nrc.uscg.mil/Default.aspx
Reportable Quantities web page http://homer.ornl.gov/rq/

ATTACHMENT 2- LANL EPC-CP UNPLANNED RELEASE REPORT

Los Alamos National Laboratory
Environmental Compliance Programs (ENV-CP)
Unplanned Release Report

Form Completed By:	**Telephone:**	**Group:**

Spill Details — Spill Owner (Specify): ☐LANS, LLC ☐Subcontractor:

Date of Spill/Date Spill Discovered:

Location:

Material Spilled:
- ☐ Hydraulic Fluid
- ☐ Potable Water
- ☐ Diesel
- ☐ Anti-freeze/coolant
- ☐ Steam Condensate
- ☐ Lubricants/oils
- ☐ Refrigerant Oil
- ☐ Gasoline
- ☐ Other: _____

Volume Spilled: **Waste Volume Generated:**

Source of Spill:
Vehicle ID: _____
Equipment ID: _____
- ☐ Hydraulic Line
- ☐ Potable Water Line
- ☐ Fire Suppression System
- ☐ Fuel Tank
- ☐ Radiator
- ☐ Condensate Line
- ☐ Other: _____

Describe the spill response in chronological order. Include response personnel, steps taken to contain the spill, and steps/spill control equipment used to clean it up. Please indicate if corrective actions have been completed and describe actions taken to prevent spill recurrence:

Date Corrective Actions Completed: _____

Did the spill enter or impact any of the following? (Check as many as apply)
- ☐ RCRA Treatment Storage Disposal Facility
- ☐ RCRA Satellite Accumulation Area
- ☐ RCRA <90 Day Storage Area
- ☐ Floor Drain, if so please indicate affected facility _____
- ☐ Watercourse/drainage area, if so please indicate _____
- ☐ Solid Waste Management Unit/Area of Concern, if so please indicate _____
- ☐ None

Did the spill occur inside or outside a building? ☐ Inside ☐ Outside

Did the spill occur on: (Check as many as apply)
- ☐ Concrete
- ☐ Carpeted Floor
- ☐ Tile
- ☐ Wooden floor/deck
- ☐ Asphalt
- ☐ Graveled/Rocky Area
- ☐ Soil/Vegetated Area
- ☐ Other: _____

Samples Collected:
- ☐ None
- ☐ Water
- ☐ Soil
- ☐ Air
- ☐ Other: _____

If samples were collected, indicate analytical suite:

Certification

I certify that I am knowledgeable about the information on this form. The information, to my knowledge, is true, accurate, and complete.

Name of Certifying Official: **Organization:** **Date:**

Certification:

Completed by ENV-CP Personnel
Date Received: **Severity Index:** **Causal Analysis:**
☐ Non-Reportable
☐ Reportable

ENV-CP-Form 1009.0 06/2015

Return Completed Form to ENV-CP (jmeadows@lanl.gov)

ENV-CP-QP-048.1	
Effective Date: September 5, 2013	Next Review Date: August 5, 2015

Environment, Safety, Health Directorate

Environmental Protection – Compliance Programs Quality Procedure

Processing MSGP Stormwater Samples

Reviewers:

Name:	Organization:	Signature:	Date:
Melanie Lamb	ADESH-OIO, QA Specialist	Signature on file	8/28/13

Derivative Classifier: ☐ **Unclassified** ☒ **DUSA____ENVPRO_____**

Name:	Organization:	Signature:	Date:
Ellena Martinez	ADESH-OIO	Signature on file	8/29/13

Approval Signatures:

Subject Matter Expert:	Organization:	Signature:	Date:
Holly Wheeler	EPC-CP	Signature on file	8/29/13
Responsible Line Manager:	Organization: EPC-	Signature:	Date:
Michael Saladen	CP Team Lead	Signature on file	8/29/13
Responsible Line Manager:	Organization:	Signature:	Date:
Anthony Grieggs	EPC-CP Group Leader	Signature on file	9/5/13

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History of Revisions

Document Number *[Include revision number, beginning with Revision 0]*	**Effective Date** *[Document Control Coordinator inserts effective date]*	**Description of Changes** *[List specific changes made since the previous revision]*
0	07/11	New Document.
1	09/13	Annual Review and Revision, new format, process change, and new organization name.

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1.0 PURPOSE

This procedure describes the process for preserving stormwater samples for shipment to an offsite analytical laboratory.

2.0 SCOPE

This procedure applies to all LANL personnel and subcontractors who conduct chemical preservation of stormwater samples either in the stormwater Laboratory located in TA-59-1 or out in the field.

2.1 HAZARD REVIEW

The work specified in this procedure is conducted in accordance with the following integrated work documents: IWDs 007, 007a, 007b, 007c, 007d, 007e, 007f, 008, 010, 010b, and 010c. Each IWD is associated with a specific FOD depending on location of sample activity. The hazard level of this procedure is **MODERATE**.

3.0 RESPONSIBILITIES

The following personnel require training before implementing this procedure:

- EPC-CP staff and contract personnel who process Stormwater samples for the MSGP.

The training method for this procedure is "self-study" (reading). For EPC-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

In addition to training to this procedure, the following training and data systems access is also required prior to performing this procedure:

- Personnel performing this procedure will be familiar with the most recent version of the EPC-CP MSGP Sampling and Analysis Plan.
- WES-EDA-QP-219, *Sample Control and Field Documentation*
- ENV-RCRA-QP-022, *MSGP Stormwater Corrective Action*

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 EPC-CP records room:

- Copy of the Sample Collection Log/Field Chain of Custody Form

5.0 WORK PROCESSES

The Environmental Protection Agency (EPA) issued the National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP) on September 29, 2008. The MSGP requires LANL to monitor stormwater runoff from industrial sites relative to potential pollutants.

Stormwater samples are collected in the field either from refrigerated Avalanche™ or ISCO 3700™ automated samplers. Chemical preservation is conducted in the Stormwater Laboratory (in TA-59-01) immediately following sample collection or in the field.

A LANL Project Leader is the primary person responsible for the steps in this procedure.

The following equipment and tools are required:

- Copy of this procedure
- Copy of Integrated Work Documents (IWDs)
- Copy of the EPC-CP MSGP Sampling and Analysis Plan
- Work Orders (if issued)
- Sample Collection Log/Field Chain of Custody Form (provided by the Sample Management Office (SMO)
- Sample containers
- Sample container labels
- Necessary keys
- Safety glasses with side shields
- Nitrile gloves
- Leather gloves or equivalent work gloves
- Glass and poly bottles appropriate for samples to be collected at the site (reference sampling plan)
- Preservative
- Lids for bottles
- Teflon tubing for intake
- Tygon tubing for exhaust

5.1 PROCESSING SAMPLES

Step	Action
1	Obtain required Sample Collection Log/Field Chain of Custody Form(s) from the SMO. Collect samples and deliver them to the Water Laboratory in coolers containing Blue Ice®.
2	Double check to make sure the Location ID on the Sample Collection Log/Field Chain of Custody Form matches the sample collection station number. If preservation beyond ice is indicated on the form, obtain required preservative and sample containers for identified volume if different from the amount of sample collected. **NOTE:** Specific preservatives and required sample volumes are listed on the Sample Collection Log/Field Chain of Custody Form.
3	Process only one sample set (i.e., samples from one site) at a time. **NOTE:** Sample collection bottles are the bottles used to collect the sample in the field. Sample containers are containers/bottles that the original sample is transferred to after processing. These

	containers are transferred to the Sample Management Office for shipment to the analytical laboratory.
4	Affix appropriate label to sample container.
5	Split up samples into appropriate sample containers.
6	Verify that the sample ID number on the container label matches the sample ID number on the Sample Collection Log/Filed Chain of Custody Form

The following steps should be followed when preserving samples:

Step	Action
1	**IMPORTANT:** Preservation entails the addition of acid or base to a sample. Acids used include hydrochloric acid (HCl), nitric acid (HNO_3), and sulfuric acid (H_2SO_4). Bases used in preservation include sodium hydroxide (NaOH). These are all strong acids and bases that can cause severe burns. Extreme care should be taken when using these acids and bases.
2	Preserve (add acid or base) samples according to the requirements on the Sample Collection Log/Field Chain of Custody Form. **NOTE:** Make sure the pre-measured preservative labeled size matches the sample container size. 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.
3	Mark each container after preservative has been added to designate that the process has taken place.
4	Securely affix lid to sample container. Clean and dry the exterior of sample container, ensure lid is on securely, and check sample container for leakage and breakage.
5	Apply chain-of-custody tape around the mouth and lid of the bottle.
6	Carefully place sample containers in the cooler and package sample containers with Blue Ice®.

5.2 SUBMIT SAMPLES FOR SHIPPING

Submit samples with original Sample Collection Log/Field Chain of Custody Form to SMO for shipping to an offsite analytical laboratory. The person delivering the sample to SMO relinquishes the sample by signing, dating and recording the time under “Relinquished By.” The SMO accepts samples by signing, dating and recording the time under “Received By.” Obtain a signed copy of the Sample Collection Log/Field Chain of Custody Form from the SMO. Make a copy of the Sample Collection Log/Field Chain of Custody Form and provide it to the MSGP Project Leader.

Every attempt will be made to minimize the amount of waste generated. Field personnel will diligently collect only the volumes identified as the minimum or maximum allowable identified on Form. If there is not enough liquid collected to meet these volumes, the Stormwater will be

discharged at the sampler location. Extra Stormwater collected will also be discharged at the sampler location. If waste is generated, contact the Waste Management Coordinator for TA-59-1 or the MSGP Project Leader.

5.3 DATA QUALITY OBJECTIVES

The 2008 MSGP permit requires quarterly and annual Stormwater monitoring to determine if pollutants from industrial activities are migrating into U.S. waters. The permit specifies benchmark parameters that are indicators of potential pollutant sources. In addition, certain impaired water quality standards must be met. Factors which must be considered in making the decision of whether pollutant sources are present or water quality standards have been exceeded are analytical data quality and whether the collected sample is representative of the permitted discharge.

To determine whether the Laboratory is in compliance with all relevant laws and regulations, sample collection and analytical data must be evaluated by the a representatives of ADESH, Operations and Integration Office (OIO) by requesting formal focused validation and/or by the MSGP Project Leader.

Sample collection and submission is conducted under the guidelines found in:

- NPDES Permit Tracking No. NMR05GB21
- 40 CFR Subpart 136 Guidelines establishing the test procedure for the analysis of pollutants.

Sample analysis must use EPA approved methods as set forth in the NPDES permit.

Benchmark levels are identified in the 2008 MSGP. Outfall and sampling locations are identified in the individual facility Stormwater Pollution Prevention Plans (SWPPP).

Monitoring frequencies and reporting requirements are specified in the 2008 MSGP.

Sampling location(s):

Annual, quarterly, and visual assessments shall be conducted in compliance with the monitoring requirements specified in the 2008 MSGP. As specified previously, specific sampling location(s) are identified in the facility specific SWPPP.

Grab Sample:

A minimum of one grab sample from a discharge resulting from a measurable storm event is required. Samples must be collected within the first 30 minutes of a measurable storm event. If that is not possible, the sample must be collected as soon as practicable after the first 30 minutes and documentation must be kept with the SWPPP explaining why it was not possible to take samples within the required time frame. In the case of snowmelt, samples must be taken during a period with a measurable discharge.

NOTE: A grab sample is defined as a single sample collected at a NPDES outfall (using approved EPA methods) at a particular time that represents the composition of the stormwater at that time and place.

Representative Sampling:

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

MSGP Discharge Monitoring Reports and Other Reports (MDMRS):

Monitoring results must be reported on an MDMR form (EPA Form No. 2040-0004) in accordance with the "Instructions for Completing the MSGP Industrial Discharge Monitoring Report" provided on the form. The permittee shall submit the original MDMR signed and certified to EPA as required by Part 7.1 of the MSGP.

Duty to Comply:

The permittee must comply with all conditions of the 2008 MSGP permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action.

5.4 DEVELOP A DECISION RULE

If analytical results from monitoring activities are above benchmark and/or natural background levels, a corrective action is entered into the EPC-CP Corrective Action Report Database, in accordance with ENV-RCRA-QP-022, *MSGP Stormwater Corrective Actions*. An e-mail is automatically generated and sent to personnel responsible for evaluating and modifying controls to prevent further exceedances. Data validation is conducted under the guidelines of the DOE Statement of Work.

Acceptable analytical error is addressed in the DOE Statement of Work.

The current MSGP monitoring program is based on the 2008 MSGP. Activities that could affect the current or next MSGP permit include:

- Addition or removal of constituents into the 303(b) list,
- Discontinued monitoring based on no detection or constituent levels below benchmark or natural background,
- Specific changes identified by EPA within the next permit,
- DOE Statement of Work requirement for analytical laboratories.

6.0 REFERENCES

None

7.0 DEFINITIONS

None

8.0 ATTACHMENTS

Attachment 1- Example Sample Collection Log/Field Chain of Custody Form

Attachment 2- Sample Container Labels

By requesting credit for this required reading I acknowledge that I have read and understand the contents of this document and I will follow and meet the requirements in this document unless it is unsafe to do so.	Click to Acknowledge

ATTACHMENT 1- SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY FORM

Los Alamos National Laboratory

Page 1 of 1

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 4179 **EVENT NAME:** MSGP - 2013

SAMPLE ID: WTMSGP-13-29841 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED (MM/DD/YYYY):		08/12/13	FIELD MATRIX:	WT	OK
TIME COLLECTED (HH:MM):		1334	MEDIA:		
PRS ID:		OK	SAMPLE TECH CODE:	APS	
LOCATION ID:	03-0038W		FIELD PREP:	UF	
LOCATION TYPE:			FIELD QC TYPE:	REG	
TOP DEPTH:			SAMPLE USAGE:	COMP	
BOTTOM DEPTH:			EXCAVATED:		YES / NO / (NA)

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
	MSGP-Zn	1 LITER POLY	1	HNO3	Y	

SAMPLE COMMENTS:

Q3

LOCATION COMMENTS:

FIELD PARAMETERS:

COLLECTED BY (PRINT) MARWIN SHENDO

RELINQUISHED BY (Printed Name) Marwin Shendo (Signature) MShe.	**Date/Time** 8/12/13 1:45	**RECEIVED BY** (Printed Name) S. Sherwood (Signature) Sherri Sherwood	**Date/Time** 8/12/13 1345
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

Report Date 08/01/2013

COPY

ATTACHMENT 2- SAMPLE CONTAINER LABELS

AVERY® 5523™ 1-800-GO-AVERY (462-8379) www.avery.com

Los Alamos National Laboratory	
Sample ID: WTMSGP-13-29856	
Container: 1 LITER POLY	1 of 1
Preservative: HNO3	
Analysis: Ag+As+Cd+Mg+Pb+Se+Hg	
Date:	Time:

Los Alamos National Laboratory	
Sample ID: WTMSGP-13-29856	
Container: 0.5 LITER POLY	1 of 1
Preservative: NAOH	
Analysis: MSGP-CN(TOTAL)	
Date:	Time:

Los Alamos National Laboratory	
Sample ID: WTMSGP-13-29856	
Container: 0.5 LITER POLY	1 of 1
Preservative: H2SO4	
Analysis: MSGP-COD	
Date:	Time:

Los Alamos National Laboratory	
Sample ID: WTMSGP-13-29856	
Container: 0.5 LITER POLY	1 of 1
Preservative: H2SO4	
Analysis: MSGP-NH3-N	
Date:	Time:

Los Alamos National Laboratory	
Sample ID: WTMSGP-13-29858	
Container: 1 LITER POLY	1 of 1
Preservative: HNO3	
Analysis: MSGP-GrossA	
Date:	Time:

Los Alamos National Laboratory	
Sample ID: WTMSGP-13-29858	
Container: 1 LITER GLASS	1 of 3
Preservative: ICE	
Analysis: MSGP-PCB(Aroclor)	
Date:	Time:

Los Alamos National Laboratory	
Sample ID: WTMSGP-13-29858	
Container: 1 LITER GLASS	2 of 3
Preservative: ICE	
Analysis: MSGP-PCB(Aroclor)	
Date:	Time:

Los Alamos National Laboratory	
Sample ID: WTMSGP-13-29858	
Container: 1 LITER GLASS	3 of 3
Preservative: ICE	
Analysis: MSGP-PCB(Aroclor)	
Date:	Time:

Los Alamos National Laboratory	
Sample ID: WTMSGP-13-29859	
Container: 1 LITER POLY	1 of 1
Preservative: HNO3	
Analysis: Ag+As+Cd+Mg+Pb+Se+Hg	
Date:	Time:

Los Alamos National Laboratory	
Sample ID: WTMSGP-13-29859	
Container: 0.5 LITER POLY	1 of 1
Preservative: NAOH	
Analysis: MSGP-CN(TOTAL)	
Date:	Time:

Weatherproof Laser Labels Use template for 5163™

ENV-DO-QP-101.2	
Effective Date: June 12, 2012	Next Review Date: May 12, 2014

Environment, Safety, Health Directorate

Environmental Protection – Division Office

Quality Procedure

Title: Environmental Reporting Requirements for Releases or Events

Reviewers:

Name:	Organization: ENV-QPMO, QA Specialist	Signature:	Date:
Melanie Lamb		Signature on file	6/1/12

Derivative Classifier: ☒ **Unclassified**

Name:	Organization:	Signature:	Date:
Anthony Grieggs	ENV-RCRA	Signature on file	6/7/12

Approval Signatures:

Responsible Line Manager:	Organization:	Signature:	Date:
Anthony Grieggs	ENV-RCRA, Group Leader	Signature on file	6/7/12
Responsible Line Manager:	Organization:	Signature:	Date:
Tina Marie Sandoval	ENV-QPMO, Office Leader	Signature on file	6/4/12
Responsible Line Manager:	Organization:	Signature:	Date:
Alison M. Dorries	ENV-DO, Division Leader	Signature on file	6/12/12

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History of Revisions

Document Number *[Include revision number, beginning with Revision 0]*	**Effective Date** *[Document Control Coordinator inserts effective date]*	**Description of Changes** *[List specific changes made since the previous revision]*
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1	4/10	Revision and update
2	6/12	Biennial Review/Revision, new template implemented.

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1.0 PURPOSE

This Environmental Protection Division (ENV-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 P322-3, *Performance Improvement from Abnormal Events*. Environmental reporting requirements regarding releases or other events are included in this procedure.

2.0 SCOPE

This procedure applies to ENV-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 or Pueblo Environmental Departments (refer to ENV-DO-QP-111, *Reporting Environmental Releases To Pueblo Governments*) and describes the actions that must be performed within the first 24 hours. This procedure does **not** cover the response procedures for "continuous releases" under CERCLA and EPCRA (see definitions) nor the follow-up notifications and reports.

2.1 WORK HAZARD ANALYSIS

The work described in this procedure consists of field work that does not require an Integrated Work Document (IWD) and is rated as having a **LOW hazard** level as documented by submittal of an *ENV Low Hazard Verification* form to the Quality Assurance Specialist.

3.0 RESPONSIBILITIES/PREREQUISTIES

The following personnel require training before implementing this procedure:

- ENV-DO managers and designated on-call representatives and SMEs who may be asked to fulfill reporting requirements during release-related exercises or during actual releases, or within 24 hours.

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.

3.1 PREREQUISITES

- None

Note: Actions specified within this procedure, unless preceded with "should," or "may," are to be considered mandatory (i.e., "shall," "must," "will").

4.0 DOCUMENT CONTROL/RECORDS MANAGEMENT

The following records generated as a result of this procedure are to be submitted as records according to the responder's group's internal records management process:

- Field documentation of the release, including:
  - Time and date of the release
  - Time, date, and description of notifications
  - Location and source of the release
  - Type of material released
  - Quantity of material released
  - Impacted media
  - Time release was stopped
  - Any immediate mitigation actions taken to contain or control the release
  - Documentation of any verbal notifications
  - Samples taken
- Copies of any written notifications generated
- Documentation of any analytical results, and quality assurance of results
- Any other contingency plan or emergency plan documentation
- Documentation of any PCB notification
- 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

5.0 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 inside or outside of buildings, wastewater spills, potable water or fire fighting water as well as impacts to cultural and biological resources not adequately documented, and other releases to the environment.

On a semi-annual basis ENV-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 PADOPS, ADES&H, ADEP, Emergency Operations (ADSS-EO), ENV-DO, ENV-RCRA, and ENV-ES. The on-call representative can be reached by pager at 664-7722.

5.1 RESPONSIBILITY OF ON-CALL REPRESENTATIVE

The ENV 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 ENV Division management of immediate reporting requirements; and

- 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 ENV-DO on-call representative is not responsible for the following, EOC will make these determinations:

- determining if the RCRA Contingency Plan must be implemented, or
- 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 ENV on-call representative may immediately confer with an SME of the ENV 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 ENV groups (ES & RCRA) is available in the ENV-RCRA group office. The ENV-DO and ADSS-EO may also be contacted to determine the on-call representative for each group.

5.2 FOLLOW-UP REPORTING

This procedure describes the initial external notifications (within the first 24 hours) to regulatory agencies and Pueblo Environmental Departments. After completion of the steps in this procedure, the ENV group specifically responsible for compliance with the relevant regulations (responsible group) will complete the required notifications and reports, as applicable under the appropriate regulations, according to established procedures.

5.3 SUMMARY OF POLICY ON REPORTING

The ENV on-call representative and SMEs have the authority and responsibility for deciding when to report and for making the report to regulatory agencies within regulatory deadlines and to Pueblo Environmental Departments when potentially impacted.

LANL management and DOE LASO 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 or Pueblo. LANL management, with input from ENV SMEs, will determine if an ORPS (Occurrence Reporting Processing System) report or other type of Lessons Learned will be necessary.

NOTE: ADSS-EO maintains a current list of on-call LANL managers.

5.4 USING THIS PROCEDURE

This procedure has four 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:

- RCRA
- TSCA
- CWA, NM WQA, and NM WQCC Regulations
- CERCLA and EPCRA.
- CAA
- Endangered Species Act (ESA), New Mexico Endangered Plant Species Act
- Bald Eagle Protection Act, Migratory Bird Treaty Act
- New Mexico Wildlife Conservation Act
- National Environmental Policy Act (NEPA)
- National Historic Preservation Act (NHPA)
- Native American Graves Protection and Repatriation Act (NAGPRA)
- Archaeological Resources Protection Act (ARPA)

Under CERCLA or EPCRA, a Reportable Quantity (RQ) is the action level that may trigger an appropriate response to a release under the provisions of these regulations. A release may not meet RQ reporting limits **but still may be reportable** under RCRA and CWA requirements.

NOTE: The 24-hour deadline (15 minutes in some cases) applies regardless of whether it occurs during business hours, non-business days or after business hours.

Additional information and guidance on how and when to report a release is available at this link: http://homer.ornl.gov/nuclearsafety/env/guidance/cercla/rqs-gen.pdf.

All potential ENV-DO on-call representatives or SMEs should follow the various links at this site and be familiar with the guidance before any release or event occurs.

5.5 DETERMINING IF A RELEASE IS REPORTABLE UNDER RCRA

Follow the flow charts in Attachment 1 to determine if an event is reportable under RCRA. The three groups of circumstances described below (also delineated in the flow charts in Attachment 1) are evaluated to determine if an event is reportable.

Under the RCRA permit requirements, the ADSS-EO manager determines if the “RCRA Contingency Plan” provisions should be implemented. The flow chart in Attachment 1 starts with this determination. The ENV on-call representative or an ENV-RCRA SME performs notifications that are necessary.

The ADSS-EO Manager will normally attempt to contact the ENV-RCRA SME for guidance in making this decision. If the ENV-RCRA SME is successfully contacted, the completion of the remainder of this procedure may be passed on to this individual.

The ENV on-call representative makes the determination that one or more of these conditions occurred through consultation with ENV-RCRA and appropriate SMEs. 24-hour notification can be made by the on-call representative or by an SME of ENV-DO.

The EOC manager makes the determination that unstable chemicals, leaking or compromised gas cylinders represent an emergency situation and, typically with ENV-RCRA, how best to respond. 24-hour notification can be made by the on-call representative or ENV-RCRA 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 *Reporting a Release or Event*.

5.6 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 release of PCB's is reportable to the EPA under TSCA if it is over 10 pounds PCB's by weight or at concentrations of 50 ppm or greater.

Follow the steps in *Determining if a Release is Reportable under CERCLA, EPCRA, or Other Regulations* to determine if the RQ (of 1 pound) for PCBs has been triggered. Additionally, reporting requirements are triggered if over 270 gallons of untested mineral oil suspected of containing PCBs has been spilled.

There are nine items containing PCBs that are in use at the CMR Building. In addition, there is one PCB contaminated transformer in use at TA-48. 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 (see definitions) 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 (below).

If the spill is ...	**Then...**
over 10 pounds by weight of PCBs (TSCA) **OR** if PCBs are at concentrations ~50 ppm that directly contaminate surface water sewers, drinking water supplies, grazing lands, or vegetable gardens	Report to 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.

5.7 DETERMINING IF A RELEASE IS REPORTABLE UNDER CWA OR NM WATER QUALITY ACT

The CWA and NM Water Quality Act (NMWQA) (equivalent to the national Clean Water Act) does not use RQs (as described in the next section). Instead the NM Water Quality Control Commission (NMWQCC) regulations state: *"Any amount of any material in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or may unreasonably interfere with the public welfare or the use of property. This includes chemical, biohazardous, petroleum-product, and sewage spills and incidents. In addition to recent spills, the discovery of evidence of previous unauthorized discharges, such as contaminated soil or ground water, also must be reported."*

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, however. The ENV on-call representative or SME has the authority and responsibility to make this determination.

Spills of potable water or fire fighting water (e.g., water line breaks) require reporting if there is a release of over 5000 gallons or if the release impacts a Solid Waste Management Unit (SWMU). Contact the ADEP for the location of SWMUs and coordinate any necessary water quality notifications with ENV-RCRA.

For oil discharges (film/sheen/discoloration) to water in stream channels, additionally notify the National Response Center (24-hour verbal notification) and EPA Region 6.

5.7.1 ADDITIONAL REPORTING REQUIREMENT FOR PETROLEUM STORAGE TANKS

New Mexico Environment Department (NMED) regulations from June 2009 require verbal reporting within 24 hours of release of petroleum products from regulated tanks to the Petroleum Storage Tank (PST) Bureau when there is:

- evidence of release of regulated substances;
- unusual operational conditions (that would cause concern about a release); or
- monitoring results that show loss from the system.

Regulated tanks include those of 1320 gallons to 55,000 gallons and exclude all sizes of tanks used to fuel emergency generators.

This reporting requirement is <u>in addition</u> to the reporting under NMWQCC Regulations and CWA requirements for such releases. Call the PST Bureau at 476-4397 during business hours and 827-9329 after closing.

If there is more than one activity team member, the PIC conducts a readiness check during the tailgate briefing to note any local work conditions that could affect the work and reminds the team of the documented hazards and controls. At this time workers also verify that each other's PPE is adequate.

If a release (see Definitions) is reportable under NMWQCC Regulations, continue through the next sections to determine if the release/event is reportable under other rules and proceed to the Section, *Reporting a Release or Event.*

5.7.2 Additional Reporting Requirements Under NPDES Pesticide General Permit

Adverse incidents, an unusual or unexpected incident that an Operator has observed upon inspection or of which the Operator otherwise becomes aware, requires reporting under the NPDES Pesticide General Permit (PGP).

The Operator should report any adverse incidents 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; and/or
    - 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.

If an Operator observes or otherwise becomes aware of an adverse incident due to pesticide application, the Operator must immediately notify the appropriate EPA Incident Reporting contact within 24 hours of the incident of the Operator becoming aware of the adverse incident. EPA Incident Reporting Contacts are listed at www.epa.gov/npdes/pesticides. These reporting requirements are in addition to any required under Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

5.8 DETERMINING IF A RELEASE IS REPORTABLE UNDER CERCLA OR EPCRA

Under CERCLA or EPCRA, a Reportable Quantity is the action level that may trigger an appropriate response to a release under the provisions of these regulations. RQs are summarized in 40 CFR Part 302. An RQ is based on the quantity of chemical released within any 24-hour period. The RQs for extremely hazardous substances can be found in 40 CFR Part 355, Appendices A and B, in the column labeled "RQ". This table has two columns of RQs: the Statutory RQ and the Final RQ. Use the weight in the Final RQ column for determining if the release must be reported. The chemicals that have not been assigned RQs by EPA have been given statutory RQs of one pound by Congress.

Releases (see definitions) that occur within a closed space with no emissions to the ambient environment (see definitions) are exempt from this requirement.

The exceedance of an RQ requires immediate notification.

NOTE: Response procedures for "Continuous Releases" are not covered in this procedure.

5.8.1 REGULATORY CLASSIFICATION OF THE RELEASED MATERIAL

Determine the regulatory classification of the substance released with respect to the hazard classifications: Extremely Hazardous Substance (EHS) and/or Hazardous Substance (HS) (see definitions).

Often during the course of an emergency, complete information will not be available regarding type and amount of material released. In this case, best professional judgment must be used to establish the level of confidence associated with the estimates. If the uncertainty is high enough that future estimates may require reporting, it is best to err on the side of caution and follow the reporting requirements in the section *Reporting a Release or Event.*

- Identify the constituents in the material released using the Material Safety Data Sheet (MSDS), laboratory analysis, data sheet, manifest, or manufacturer information.
- A summary of the RQs can be found in 40 CFR Part 302 and 40 CFR Part 355, Appendices A and B. The RQ may also be determined using the on-line RQ Calculator (http://homer.ornl.gov/rq/)
- Calculate the amount of the listed chemical involved in the release (the weight of the material released multiplied by the percentage of the concentration of the listed chemical present in the material).

After determining the RQ of a released material, the ENV-DO 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 Appendix B to 40 CFR 302 and 40 CFR 355, Appendices A and B.
3	If this is an airborne release of radioactive materials, it is reportable if the RQ is exceeded AND if the release could cause an annual exposure to the nearest downwind residence or business of 10 mrem (40 CFR 61, Subpart H).[1] The exposure estimate should be made by an environmental health physicist. **If the release…** — **Then…** Is over the RQ AND could cause the Laboratory to exceed the 10 mrem/yr standard to downwind businesses or residences — Proceed to section *Reporting a Release or Event.* Is less than the RQ AND could NOT cause the Laboratory to exceed the 10 mrem/yr standard. — No reporting is required under CERCLA or EPCRA. Proceed to Step 4.
4	If this is a release of non-rad material, it is reportable if the RQ is exceeded. **If the amount released is..,** — **Then…** Equal to or greater than the RQ — Proceed to Section *Reporting a Release or Event.* Less than the RQ — Proceed to Step 3
5	Continue to re-evaluate the release as new data becomes available. Perform Steps 1 through 3 as necessary.

[1] It should be noted that "Area sources and other sources that are subject to regulations that limits their total annual emissions should generally report their releases at or above the RQ of hazardous substances (HSs) and extremely hazardous substances (EHSs) that are caused by accidents, malfunctions, unanticipated releases and other releases that are not part of the facility's normal operations." 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".

5.9 DETERMINING IF A RELEASE IS REPORTABLE UNDER BIOLOGICAL OR CULTURAL REQUIREMENTS

There are a number of 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 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 resources under the preceding laws and associated regulations is not specifically defined. This is also the case for reporting of most cultural resources impacts under the National Historic Preservation Act. The use of professional judgment by the ENV-DO on-call representative and SME is required.

Reporting of impacts under the Native American Graves Protection and Repatriation Act is specifically governed by the following document "A Standard Operating Procedure for the Inadvertent Discovery of Native American Human Remains and Associated Funerary Objects, Sacred Objects, or Objects of Cultural Patrimony at Los Alamos National Laboratory" (LA-UR-06-6712) prepared for the Department of Energy Los Alamos Site Office (DOE LASO) by the LANL Cultural Resources Team and implemented on January 30, 2008.

Reporting of impacts under the Archaeological Resources Protection Act (ARPA) is governed in part by the Act and also by LANL Cultural Resources Team Procedure ES-415, *Archaeological Resources Protection Act.*

5.9.1 REPORTS TO DOE LASO

In general, any release or event that poses a significant impact to biological or cultural resources requires reporting to DOE LASO as soon as possible and may require reporting to LANL management and DOE HQ through the ORPS. Examples of significant impacts to biological resources include:

- Release of toxic substances into listed species habitat
- Damage to a wetland or listed species habitat by a landscape-altering event such as wildfire
- Other events that would likely result in death or injury of a threatened or endangered species

- Examples of significant impacts to cultural resources include:
- Unauthorized excavation of an archaeological site
- Damage to an archaeological or historic site
- Removal of archaeological or historic artifacts

The ENV on-call representative or SME for biological or cultural resources should notify DOE LASO as soon as possible so that DOE LASO can complete the required notifications to the appropriate agencies (e.g., U.S. Fish and Wildlife Service, State Historic Preservation Office) within 24 hours.

5.10 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 in this section must be followed upon determination that a release or event is reportable.

For informational purposes, a summary of emergency release/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 *Records Resulting from This Procedure*).

If RCRA reporting requirements are triggered, see the flow chart in Attachment 1, Emergency Notification Requirements for RCRA.

Perform the following steps immediately after establishing that reporting will be performed:

Step	Action
1	• Number of persons injured and the nature of injuries (e.g., life-threatening or minor injury) • Extent of any protective actions taken (e.g., evacuations) • Name, address, and telephone number of the person to contact for further information • Whether the substance is an HS or EHS (see definitions) • 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.
2	*[For RCRA: skip this step; see flow chart (Attachment 1).]* For releases of substances that are classified as CERCLA hazardous substances, contact the **National Response Center at 800-424-8802**. **Note:** If it is an EHS but not a CERCLA hazardous substance, reporting is only necessary to state and local authorities. **Exception:** For reportable water releases, the NRC needs to be notified ONLY if the release includes oil (such as a sheen on the water surface).

Step	Action
3	*[For RCRA: skip this step; see flow chart (Attachment 1).]* If the release is outside the LANL boundaries, or has the potential to go outside, additionally contact the **New Mexico State Police** at 505-827-9126 (State Emergency Response Commission—SERC). Contact the **Los Alamos County Police** at (505) 662-8222 (Local Emergency Planning Committee—LEPC). Contact the **New Mexico Environment Department**: • During work hours: 505-476-6000 • 24-hr Emergency Hotline: 505-827-9329 DOE O 231.1A Requires notification and reporting through the Facility Operations Director to DOE LASO and DOE HQ given a set of reporting criteria where the timelines from time of event and categorization given the circumstances of the event to verbal and/or written notification is 2-hours. For certain types of environmental events, the reporting criteria are more stringent than what is required in Federal and State laws and requirements (e.g. 50 percent of an RQ is ORPS reportable within the ORPS system). For all environmental events, the ENV On Call individual and/or ENV SME must ensure that the appropriate FOD or designee has been engaged as per P322-3, *Performance Improvement from Abnormal Events*, and this will ensure that ORPS notification and reporting criteria are being met.
4	If requested by any of the above organizations, provide updates as new information becomes available.

Any release to the environment that has been determined to be reportable by the ENV on-call representative or SME shall be reported through the LANL management chain in accordance with PD1200, *Emergency Management* and P322-3, *Performance Improvement from Abnormal Events*. LANL management shall be notified immediately that a release notification to state or federal regulatory agencies is required so that DOE notification and reporting requirements are met. LANL management approval is not required prior to environmental reports and notifications made to the regulatory agencies in order to assure that the deadline for reporting is not exceeded.

5.10.1 Steps to notify LANL Management

To notify LANL management and to complete the environmental reporting process to DOE, state and federal agencies, and Pueblo Environmental Departments, perform the following steps:

Who	Step	Action
ENV-DO on-call representative or SME	**1**	Determine that a release to the environment is reportable to state, federal, or Pueblo entities and required under regulations. **NOTE:** ORPS reporting is a FOD and RAD responsibility and will seek advisement from ENV SMEs.
	2	Contact the following individuals by phone. • Team Leader/Direct Supervisor • Group Leader/Deputy Group Leader • ENV-DO Division Leader or Designee for Reporting If no direct contact can be made, leave messages by pages or phone.
ENV-DO Division Leader or Designee for Reporting	**3**	Notify the ADES&H Directorate Office and assure that the notification process continues through the LANL management chain to the PADOPs Office as specified in PD 1200-1 Emergency Management, and P322-3, *Performance Improvement from Abnormal Events*.
	4	Notify the ADEP Directorate Office if the release originated or impacted a Solid Waste Management Unit (SWMU) or Potential Release Site (PRS).
		As per PD1200, verbal and written notifications must be made up the management chain by use of the PADOPS report. Generally, this is the responsibility of the FOD or the FOD designee. However, ENV on-call personnel may be required to perform this function from time to time. Therefore, on-call personnel must understand who will perform this reporting function.
ENV-DO on-call representative or SME	**5**	Notify the DOE LASO program contact for the release.
	6	Complete the environmental reporting to state and federal agencies prior to the regulatory deadline for reporting.
	7	Notify Pueblo Environmental Departments of the release when potentially impacted.
SME	**8**	Complete 14-day and other follow-up reports to the state and federal agencies.

If the release involved radioactive materials, the ENV on-call representative or SME will notify ENV-ES. ENV-ES will additionally notify:

EPA Region 6

(214) 665-8541

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 ENV on-call representative or SME will notify DOE LASO Environmental Office as soon as possible. DOE LASO is required to notify U.S Fish and Wildlife Service within 24 hours.

After all the above notifications have been made, or when requested, the ENV on-call representative or SME will hand off responsibility for additional actions and follow-up to the affected environmental group. (Which group is responsible will depend on the type and location of the release and the governing regulations or statutes.) Provide all relevant records. See Section: Records Resulting from this Procedure.

In order to communicate events at LANL which may impact the public and or the environment, ENV staff will notify the 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.

6.0 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 ENV-RCRA 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. NM00283 National Response Center (NRC) Web Site: http://www.nrc.uscg.mil/
- NMWQCC Regulations, 20.6.2 NMAC, dated December 1, 2001
- P407, *Water Quality*

- QP-5.8, *Identification, Documentation, and Reporting of Newly Discovered Potential Release Sites,* ADEP Procedure.
- RQ Calculator Web Site: http://homer.ornl.gov/rq/

7.0 DEFINITIONS

ADES&H: Associate Directorate for Environment, Safety, and Health

ADEP: Associate Directorate for Environmental Programs

CAA: Clean Air Act

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act

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. [DOE/EH-0441, guidance document, 372,099 bytes, 51 pp.], available at: http://homer.ornl.gov/sesa/environment/guidance/cercla/CONTIN.PDF.

CWA: Clean Water Act

ENV-DO: Environmental Protection Division

Environment: includes "water, air, land, and the interrelationship which exists among and between water, air, land, and all living things." (40 CFR 355.20)

EPCRA: Emergency Planning and Community Right-to-Know Act

ER-DO: Emergency Response Division

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

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)

LEPC: Local Emergency Planning Committee. Locally, the contact is through Los Alamos County Police and Fire Departments

NMWQA: New Mexico Water Quality Act

NMWQCC: New Mexico Water Quality Control Commission

NPDES: National Pollutant Discharge Elimination System

NRC: National Response Center

OSC: On-Scene Commander

PADOPS: Principal Associate Director for Operations

PCBs: Polychlorinated Biphenyls

PST: Petroleum Storage Tank

RCRA: Resource Conservation and Recovery Act

Release: Any unpermitted spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing of contaminants into the environment, excluding: (1) emissions from the engine exhaust of any vehicle, (2) certain releases of source, byproduct, or special nuclear material from a nuclear incident, or (3) normal application of fertilizer

RQ: Reportable quantity

SARA: Superfund Amendments and Reauthorization Act

SERC: State Emergency Response Commission. In NM, the contact is through the NM Department of Public Safety.

SME: Subject Matter Expert.

TSCA: Toxic Substances Control Act

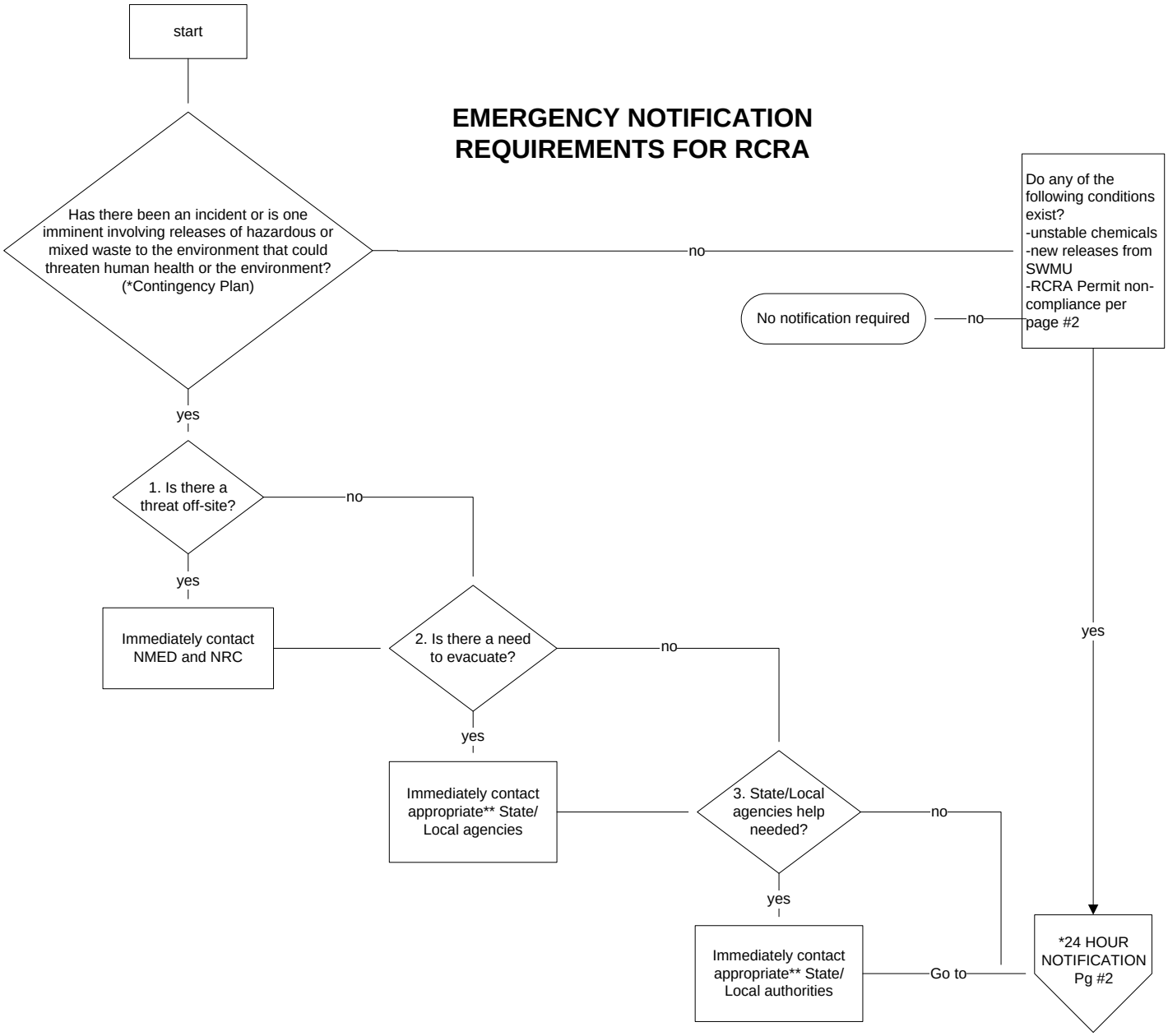
8.0 ATTACHMENTS

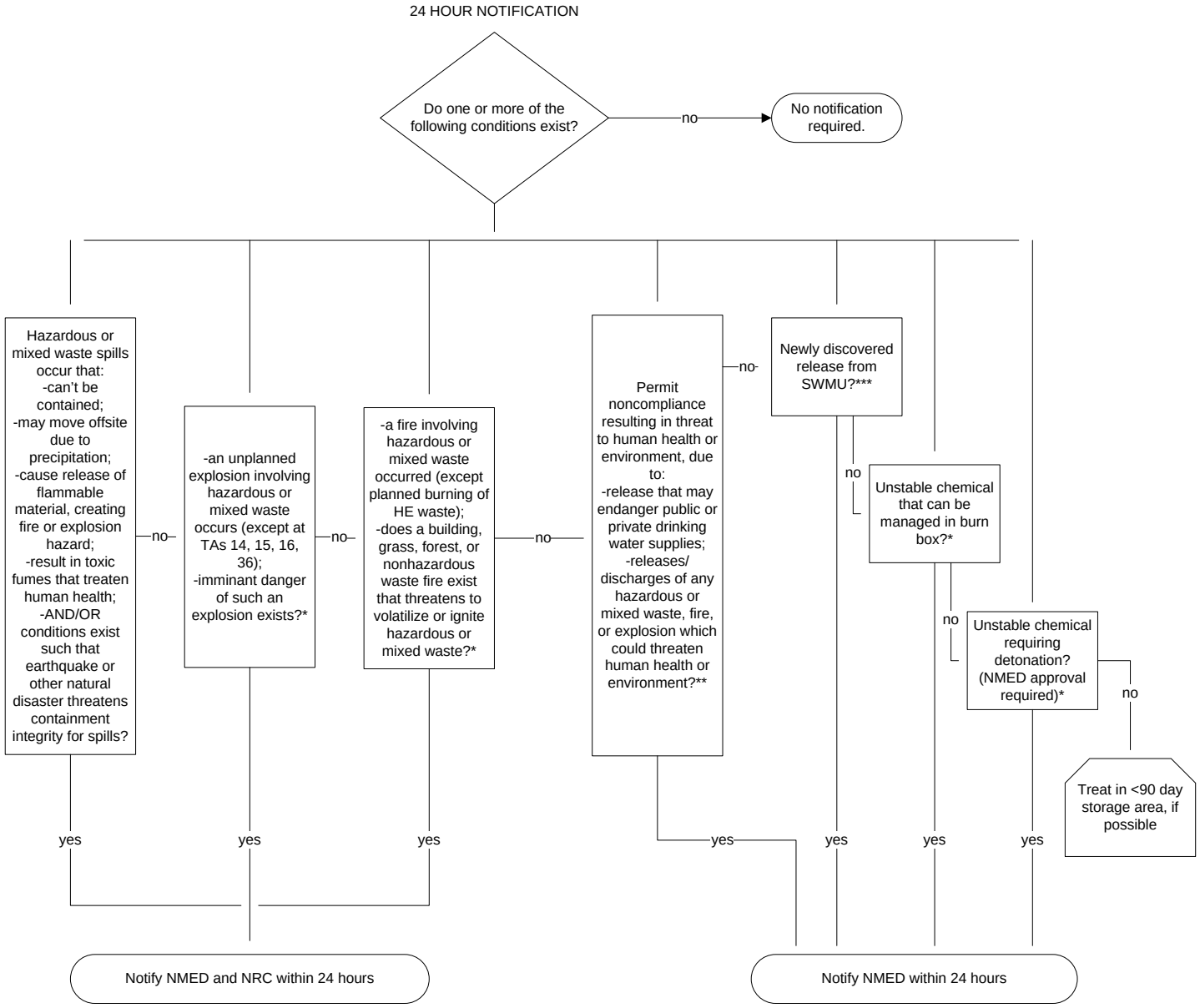
Attachment 1: Emergency Notification Requirements for RCRA

Attachment 2: Summary of Emergency Release or Event Reporting Requirements

By requesting credit for this required reading I acknowledge that I have read and understand the contents of this document and I will follow and meet the requirements in this document unless it is unsafe to do so.	Click to Acknowledge

ATTACHMENT 1: EMERGENCY NOTIFICATION REQUIREMENTS FOR RCRA





*Contingency Plan implementation, need for burn box use, or for detonation to be determined by EM&R
**To be determined by ENV-RCRA
***To be determined by WES-WA and ENV-RCRA

ATTACHMENT 2: SUMMARY OF EMERGENCY RELEASE OR EVENT REPORTING REQUIREMENTS

NOTE: This is only a guide and does not cover all federal, state, or permit reporting requirements. Refer to the Code of Federal Regulations and the RCRA Permit for more details regarding these regulations.

STATUTE	REGULATIONS	INCIDENT	REPORT TO/BY	REPORTING
Clean Water Act(CWA)	40 CFR 110.6	Oil discharge (film/sheen/discoloration) to water surface or shoreline, or violation of water quality standards.	NRC. If not practical then EPA by person in charge of facility.	Immediately, no later than 24 hours. Follow-up not required.
Clean Water Act (CWA)	40 CFR 117.21	Discharge of hazardous substance (equal to or above RQ)	Appropriate govt. agencies by person in charge of facility.	Immediately Follow-up not required.
Clean Water Act (CWA)	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.	Report to EPA within 24 hrs.	30 Day Adverse Incident Written Report for PGP required.
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.	New Mexico Environment Department by ENV-RCRA. Copy to EPA.	As soon as possible after learning of such a discharge, but in no event more than 24 hours thereafter (verbal notification). 7 day written report (Calendar Days) 15 day written Corrective Action Plan.
Comprehensive Environmental, Response, Compensation, and Liability Act (CERCLA)	40 CFR 302.6(a)	Hazardous substance release (Equal to or greater than RQ).	Report to NRC by ENV or WES SME	Within fifteen minutes Follow-up not required
Emergency Planning and Community Right- to-Know Act (EPCRA)	40 CFR 355.40	Release of SARA extremely hazardous substance or CERCLA hazardous substance equal to or greater than RQ.	LEPC, SERC, or local emergency response personnel (911 in case of transportation related release) by owner/operator.	Within fifteen minutes Follow-up required within seven calendar days.

STATUTE	REGULATIONS	INCIDENT	REPORT TO/BY	REPORTING
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,	Release, fire, or facility explosion that threatens human health or environment.	NRC/OS C/state/ local /EPA Regional Administrator by ENV-DO or ENV-RCRA SME.	Immediate and/or within 24 hours (see flow chart) Follow-up: varies from 5 to 30 days report to OSC/NRC/EPA Regional Administrator.
Toxic Substance Control Act (TSCA)	40 CFR 761.120, 761.125	PCB spill (equal to or greater than 50 ppm) with release to surface water/drinking water supplies/sewers/ grazing lands, etc. OR PCB spill over 10 pounds	NRC and EPA Region 6 Office of Pesticides and Toxic Substances by person in charge.	Within 24 hours Follow-up: as required by agency.
Operational events to include environmental releases and reporting	DOE Order 231.1A	As per criteria within DOE Order 231.1A. Examples include 50 percent of an RQ	DOE LASO and DOE HQ by FOD through ESH-OFF	Verbal notifications in 2 hours after categorization and written notifications within from 2 hours to NLT 2 business days depending on the severity and DOE criteria
N/A	N/A	Incidents which may be of concern to the public, such as wild land fires, activities which may have a visual impact that concerns the public, etc.	NMED	As soon as possible

ENV-RCRA-QP-022.2	
Effective Date: February 28, 2013	Next Review Date: January 28, 2015

Environment, Safety, Health Directorate

Environmental Protection – Water Quality and RCRA Quality Procedure

MSGP Storm Water Corrective Actions

Reviewers:

Name:	Organization:	Signature:	Date:
Melanie Lamb	ENV-QPMO QA Specialist	Signature on file	1/4/13

Derivative Classifier: ☒ **Unclassified**

Name:	Organization:	Signature:	Date:
Catherine Hayes	ENV-RCRA	Signature on file	2/8/13

Approval Signatures:

Subject Matter Expert:	Organization:	Signature:	Date:
Holly Wheeler	ENV-RCRA	Signature on file	1/28/13
Responsible Line Manager:	Organization:	Signature:	Date:
Terrill Lemke	ENV-RCRA Team Lead	Signature on file	2/8/13
Responsible Line Manager:	Organization:	Signature:	Date:
Anthony Grieggs	ENV-RCRA Group Leader	Signature on file	2/28/13

CONTROLLED DOCUMENT

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Users are responsible for ensuring they work to the latest approved version.

History of Revisions

Document Number *[Include revision number, beginning with Revision 0]*	**Effective Date** *[Document Control Coordinator inserts effective date]*	**Description of Changes** *[List specific changes made since the previous revision]*
0	08/10	New Document.
1	11/10	Incorporated ENV-RCRA-QP-062 *MSGP Routine Inspections* into this document.
2	01/13	Biennial revision, new template implemented.

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1.0 PURPOSE

This procedure is written to provide requirements for identifying, documenting and entering corrective actions into the ENV-RCRA MSGP Corrective Action Report Findings database.

2.0 SCOPE

Requirements set forth in this document apply to Los Alamos National Laboratory industrial facilities covered by the National Pollutant Discharge Elimination System (NPDES) Storm Water Multi-Sector General Permit (MSGP). This "general permit" requires identification, documentation, tracking and reporting of corrective actions in accordance with sections 2.2.1, 3, 4.1.2, 4.2.2, 4.3.2, 5.0, 5.2, 5.4, 6.2.1, 6.2.1.2, 7.2 and Appendices B and I.

2.1 HAZARD REVIEW

The work described in this procedure is office work only and has a **LOW hazard** rating as documented by submittal of a completed *ENV Low Hazard Verification form* to the Quality Assurance Specialist.

3.0 RESPONSIBILITIES

The following personnel require training before implementing this procedure:

- Group and Team Leader
- ENV-RCRA MSGP Storm Water compliance personnel
- Deployed Environmental Professionals (DEPs)
- Other LANL or subcontract personnel identified as being required to conduct storm water assessments as part of their job duties.

In addition to training to this procedure, the following training is also required prior to performing this procedure:

- ENV-RCRA QAPP-MSGP *Quality Assurance Project Plan for the Storm Water Multi-Sector General Permit for Industrial Activities*

The training method for this procedure is "self-study" (required read). For ENV-RCRA staff, this is documented in accordance with ENV-DO-QP-115, *Personnel Training*. Other participating groups may require training documentation pursuant to local procedures.

Actions specified within this procedure, unless preceded with "should" or "may", are to be considered mandatory (i.e., "shall", "will", "must").

3.1 ROLES AND RESPONSIBILITIES

3.1.1 ENV-RCRA MSGP STORM WATER TEAM

ENV-RCRA MSGP Storm Water Team members will be fully knowledgeable of the specific regulatory requirements identified in the 2008 MSGP and are responsible for ensuring compliance with these requirements and entering corrective actions. Team members will evaluate corrective actions that the DEPs enter into the ENV-RCRA MSGP Corrective Action Report Findings database and modify them as needed for quality assurance. This team will also periodically review open corrective actions and follow up with the DEPs, ES&H Managers, or Upper Management, as deemed necessary, to ensure close out of the corrective action. The team members will notify upper management of instances of non-compliance with the permit. A team member may also be responsible for responding to the regulatory authority (EPA) regarding identified storm water issues and/or negotiate settlement of any identified issues.

3.1.2 DEPLOYED ENVIRONMENTAL PROFESSIONALS

DEPs will be fully knowledgeable of the site specific Storm Water Pollution Prevention Plan (SWPPP) and corrective action requirements identified in the MSGP for the facilities they are deployed to. In addition, they shall be appropriately trained to meet the job qualifications identified in the *Quality Assurance for Storm Water Multi-Sector General Permit for Industrial Activities Program* (ENV-RCRA-QAPP-MSGP) and shall be familiar with the regulatory requirements identified in the 2008 MSGP. Further, they shall be familiar with facility operations so that potential pollution discharge sources can be determined and corrective actions can be identified.

The DEPs are responsible for identifying and entering corrective actions observed at their industrial facilities into the ENV-RCRA MSGP Corrective Action Report Findings database. They are also responsible for updating corrective actions in a timely manner that cannot be implemented immediately. They will work with the ES&H Manager and ENV-RCRA storm water personnel to ensure identified corrective actions are implemented by overseeing repairs and/or improvements or instituting additional controls. If it is determined that corrective actions are necessary following an assessment, any modification to the control measures must be made before the next storm event if possible, or as soon as practicable following that storm event.

NOTE: These time intervals are not grace periods, but are schedules considered reasonable for documenting your finding(s) and for making repairs and improvements. They are included in the MSGP Permit to ensure that the conditions prompting the need for these repairs and improvements are not allowed to persist indefinitely (see Section 3.3 of the 2008 MSGP). In no instance will the corrective action remain open indefinitely.

3.1.3 ENV-RCRA STORM WATER TEAM LEADER

The ENV-RCRA Storm Water Team Leader is responsible for compliance oversight relative to the 2008 MSGP. The Team Leader will ensure costs needed to implement the regulatory requirements identified in the 2008 MSGP are identified and environmental risks are assessed. Upper management will be notified of these costs or environmental risks, as deemed necessary. In the event there is a dispute regarding the regulatory requirements contained in the MSGP, the Team Leader will make the final determination of the required action. The Team Leader will notify upper management of instances of non-compliance with the permit.

3.1.4 ENV-RCRA GROUP LEADER

The ENV-RCRA Group Leader or designee is responsible for ensuring there is adequate funding to implement the regulatory requirements identified in the 2008 MSGP. The Group Leader also acts as the duly authorized signatory that certifies the reports. The Group Leader will notify upper management of instances of non-compliance with the permit or other identified environmental risk.

3.1.5 ES&H MANAGER

The ES&H manager shall identify funding for their industrial facilities to ensure compliance with the 2008 MSGP. The ES&H Manager is also responsible for ensuring that industrial facilities are complying with the 2008 MSGP permit and notifying upper management of instances of non-compliance with the permit or other identified environmental risk.

3.1.6 FACILITIES OPERATIONS DIRECTOR

The Facilities Operations Director (FOD) provides organizational leadership to ensure that all facility and programmatic activities under their authority are performed in compliance with the 2008 MSGP. The FOD is also responsible for establishing an environmental compliance envelope. It is the FOD's responsibility to maintain trained and qualified Environmental Professionals and Waste Management Coordinators on staff.

3.1.7 COMPUTER PROGRAMMER

Maintains and updates the ENV-RCRA MSGP Corrective Action Report Findings database as requested by MSGP storm water personnel.

3.2 PREREQUISITES

In addition to training to this procedure, the following training is also required prior to performing this procedure:

- *ENV-RCRA QAPP-MSGP, Quality Assurance Project Plan for the Storm water Multi-Sector General Permit for Industrial Activities Program*

4.0 DOCUMENT CONTROL/RECORDS MANAGEMENT

The following records generated as a result of this procedure are to be submitted to the designated RM-POC in accordance with ENV-DO-QP-110, *Records Management* and filed in project files.

- MSGP Comprehensive Site Inspection Annual Report
- Completed Routine Inspection Forms
- Electronic records within the ENV-RCRA MSGP Corrective Action Report Findings database.
- Copies of automated e-mail notifications

5.0 WORK PROCESSES

5.1 IDENTIFYING CORRECTIVE ACTIONS

If any of the following conditions occur, the DEP or ENV-RCRA storm water team member must review and revise the selection, design, installation, and implementation of control measures to ensure that the condition is eliminated and will not be repeated in the future:

- An unauthorized release or discharge (e.g., spill, leak, or discharge of non-storm water not authorized by the 2008 MSGP);
- You become aware, or EPA determines, that your control measures are not stringent enough for the discharge to meet applicable water quality standards;
- An inspection or evaluation of the facility by an EPA official and/or local or State entity, determines that modification to the control measures are necessary to meet the non-numeric effluent limits in the 2008 MSGP;
- You find in the routine facility inspection, quarterly visual assessment, or comprehensive site inspection that the control measures are not being properly operated and maintained;
- Construction or a change in design, operation, or maintenance at the facility significantly changes the nature of pollutants discharged in storm water from the facility, or significantly increases the quantity of pollutants discharged; or
- The average of four quarterly sampling results exceeds an applicable benchmark. If less than four benchmark samples have been taken, but the results are such that an exceedence of the four quarter average is mathematically certain, (i.e., if the sum of quarterly sample results to date is more than four times the benchmark level) this is considered a benchmark exceedence, triggering this review;
- If effluent limitation guidelines are exceeded at the Asphalt Batch Plant (Sector D); or
- If impaired water quality standards are exceeded.

5.2 ROUTINE INSPECTIONS

Routine inspections shall be conducted by the DEP (or a qualified member if the DEP is not trained and qualified) at all areas of the facility where industrial materials or activities are exposed to storm water, and of all storm water control measures used to comply with the effluent limits contained in the 2008 MSGP. Routine inspections shall be conducted at least quarterly; however, some facilities conduct monthly inspections (as specified in the facility specific SWPPP). Routine inspections shall be conducted during periods when the facility is in operation. A certified copy of completed Routine Inspection Forms shall be maintained in the facility's SWPPP.

At least once each calendar year, the routine facility inspections must be conducted during a period when a storm water discharge (either rain or snow) is occurring. The DEP(s) or storm water personnel from ENV-RCRA are responsible for identifying and entering corrective actions observed during the routine inspections into the ENV-RCRA MSGP Corrective Action Report Findings database. The database is set up to allow access for all identified DEPs associated with a particular FOD if the FOD has more than one DEP. Contact a member of the ENV-RCRA storm water team if you do not have access to this database and the FOD has assigned you responsibility for MSGP corrective actions.

NOTE: If the industrial facility is inactive and unstaffed and there are no industrial materials or activities exposed to storm water, routine inspections may not be required. A determination of whether a facility is inactive or unstaffed shall be made in coordination with storm water personnel from ENV-RCRA as there are specific documentation and certification requirements that have to be met prior to discontinuing routine inspections.

5.3 COMPREHENSIVE INSPECTIONS

Qualified ENV-RCRA storm water personnel will conduct one comprehensive inspection of all industrial facilities and those that meet the "no exposure" criteria subject to the 2008 MSGP before September 29th of each year. At least one member of the facility's storm water pollution prevention team shall participate in this inspection. This is usually the DEP.

This inspection must cover all areas of the industrial facility affected by the requirements in the 2008 MSGP including the areas identified in the SWPPP as potential pollutant sources where industrial material or activities are exposed to storm water, areas where control measures are used to comply with the effluent limits, and areas where spills and leaks have occurred in the past 3 years. The inspector must include review of the monitoring data (analytical results from benchmark and impaired waters and visual assessments) collected that calendar year as part of the comprehensive inspection. Inspectors must examine the following at a minimum:

- Industrial materials, residue, or trash that may have or could come into contact with storm water;
- Leaks or spills from industrial equipment, drums, tanks, and other containers;

- Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site;
- Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas; and
- Control measures needing replacement, maintenance, or repair.
- Storm water controls measures required by the 2008 MSGP must be observed to ensure that they are functioning correctly.

NOTE: The annual comprehensive site inspection may also be used as one of the routine inspections, as long as all components of both types of inspections are included.

ENV-RCRA will then enter all identified corrective actions into the ENV-RCRA MSGP Corrective Action Report Findings database. It is the responsibility of the DEP to update the database to reflect updates to these corrective actions.

Information compiled during the comprehensive inspection is used to complete the Annual Report. This report shall be submitted to EPA (postmarked) within 45 days of the last facility inspection completed in September of each year. For example, if the last facility was inspected (as part of the comprehensive site inspection) on September 22, the report shall be postmarked before or on November 6th. A complete certified copy of the Annual Report shall be maintained in the facility's SWPPP.

5.4 SPILLS

All leaks or spills shall be cleaned up immediately and entered into the ENV-RCRA MSGP Corrective Action Report Findings database. This can be done by either the DEP or an ENV-RCRA MSGP storm water team member. If the spill is immediately cleaned up, and controls are put in place to prevent further leakage, the corrective action can be closed.

5.5 ALLOWABLE NON-STORM WATER DISCHARGES

The following are allowable non-storm water discharges authorized by the 2008 MSGP:

- Discharges from fire-fighting activities;
- Fire hydrant flushing;
- Potable water, including water line flushings;
- Uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids;
- Irrigation drainage;
- Landscape watering provided all pesticides, herbicides, and fertilizer have been applied in accordance with the approved labeling;
- Pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous material have occurred (unless all spilled material has been removed);

- Routine external building washdown that does not use detergents; and
- Uncontaminated ground water or spring water.

Any person authorized to conduct work at LANL can identify a potential storm water issue. If this occurs, they should contact the DEP or an ENV-RCRA MSGP storm water team member who will determine if a corrective action is needed.

5.6 ENTERING CORRECTIVE ACTIONS

To enter a corrective action into the ENV-RCRA MSGP Corrective Action Report Findings database, perform the following steps:

NOTE: Be clear and concise, use correct grammar and punctuation, and correct any spelling errors. This information will be used to populate a report that will be submitted to the EPA. Therefore, it is critical that all information entered into the ENV-RCRA MSGP Corrective Action Report Findings database is correct and meets these criteria.

Step	Action
1	From this web page: http://int.lanl.gov/environment/water/guidance/swmgp.shtml, under the heading "Compliance Tools". Click on the link "MSGP Corrective Action Report Findings Database" Click on "Enter New Corrective Action."
2	Under the "Corrective Action Header" tab, enter the following: • Facility Name by clicking on the "List" tab and selecting a facility. • Date Problem was Identified (mm/dd/yyyy) • Date of Notification to ENV-RCRA (mm/dd/yyyy) • FOD Responsible for CA (Name & Org) by clicking in the box. FOD designations (for example "STO") and the associated name will come up. Just select the appropriate FOD. **NOTE:** Contact the MSGP Project Leader at 667-1312 or hbensen@lanl.gov if the FOD name or organization is incorrect, so this can be corrected. • Describe Specific Evaluation Location (for example "Northeast corner of Building TA-3-66") • Inspector Z-Number by clicking in the box, which will populate it with your Z number. In most instances, the DEP should be identified as the inspector. Note: If you are entering the CA and are not the DEP, you will have to enter the DEP's Z number or they will not have the ability to update the corrective action. Once all of the above information is entered correctly, click "Save" and go

	to Step 3. All boxes identified with a red asterisk are "required fields" and shall be filled out. Note: The system will automatically assign a Corrective Action Report ID number.
3	Click "Go To Corrective Action Details" in the middle of the screen. Under the "Corrective Action Details" tab, enter the following: • Identify the condition triggering the need for this review by clicking on the "List" tab and selecting an option or selecting "Other" and entering a description of the condition. • Briefly describe the nature of the problem identified during the inspection (e.g., erosion, damage to a BMP, trash, spill, etc.) and the specific evaluation location. **NOTE:** Spills or other emergency situations may identify the need for a corrective action that was not identified during an inspection. • How the problem was identified by clicking on the "List" tab and selecting an option or selecting "Other" and entering a description of the problem. • Description of the corrective action taken, or to be taken, to eliminate or further investigate the problem (e.g., describe modifications or repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, the basis for that determination. • Did/will the corrective action require modification of your SWPPP. Type in "Y" for yes and "N" for no. • Date Corrective action was initiated (mm/dd/yyyy) • Date corrective action was completed **OR** expected completion date (mm/dd/yyyy) **NOTE:** If the corrective action has not been completed, enter an expected completion date. Do not put a date in both locations. If the corrective action has not been completed, provide the status of the corrective action and describe any remaining steps (including timeframes associated with each step) necessary to complete the corrective action. **NOTE:** This should only be filled out if the corrective action has not been completed. If the corrective action has been completed, enter "N/A." Make sure to hit the "save" tab in the bottom right hand corner so the corrective action information is retained. If you want to enter more corrective actions, go back to the "Corrective Action Header" tab and press the "Enter New Corrective Action" button in the lower left hand corner of the screen (see step #2). Hitting the "Exit" button will cause you to exit from the system.

	All boxes identified with a red asterisk are "required fields" and shall be filled out. If a date is not included or identified as an expected completion date, ENV-RCRA storm water compliance personnel will enter a completion date of 30 days after the corrective action was identified.

5.7 UPDATING CORRECTIVE ACTIONS

To update a corrective action in the ENV-RCRA MSGP Corrective Action Report Findings database, perform the following steps:

Step	Action
1	From this web page: http://int.lanl.gov/environment/water/guidance/swmgp.shtml, under the heading "Compliance Tools". Click on the link "MSGP Corrective Action Report Findings Database" to access the database and tab down to the corrective action number you want to edit. Click on "Edit."
2	Navigate to the blank that you will be changing and input the updated information. It is anticipated that most changes will occur relative to updating the status of corrective actions. Save all changes to the information. Remember, you should only have a date under "Date corrective action completed **OR** the "expected to be completion," but not both.

5.8 VALIDATING CORRECTIVE ACTIONS

ENV-RCRA storm water personnel will periodically validate the information contained in the ENV-RCRA MSGP Corrective Action Report Findings database. To validate a corrective action in the ENV-RCRA MSGP Corrective Action Report Findings database, perform the following steps:

Step	Action
1	From this web page: http://int.lanl.gov/environment/water/guidance/swmgp.shtml, under the heading "Compliance Tools". Click on the link "MSGP Corrective Action Report Findings Database" to access the database.

2	Check all entered fields for a corrective action to ensure that all information is clear, correct, and concise. If not, correct the information by navigating to the information that needs to be changed and making the change. Save all changes to the information. All information shall be validated before running the final annual report.
3	For ENV-RCRA storm water personnel only, under "status" select "void" if the corrective action is a repeat of a previous corrective action or if it is determined not to be a corrective action. This will delete the corrective action from the annual report.

5.9 INSTITUTIONAL PERFORMANCE FEEDBACK AND IMPROVEMENT TRACKING SYSTEM (PFITS)

PFITS is the institutional performance and tracking system for identified issues. A corrective action that meets any of the following criteria will be entered into the PFITS system, as deemed necessary.

- Corrective action was not completed by the expected completion date entered into the database.
- No action was taken to remedy an identified issue with a control measure within 14 days of discovery or before the next storm event or as soon as practicable following that storm event (Section 3.3 of the 2008 MSGP).
- Repeat corrective actions or trends identified by ENV-RCRA MSGP storm water personnel.
- Conditions requiring immediate action, where failure to take action would result in pollutants being released to water of the state or an immediate non-compliance with the 2008 MSGP.
- Violations identified by the regulatory authority.
- Other issues as deemed necessary by MSGP storm water personnel.

Once every month, ENV-RCRA storm water personnel will evaluate a summary of open corrective actions in the ENV-RCRA MSGP Corrective Action Report Findings database and using the above criteria will determine which corrective actions, if any, should be transferred into PFITS. When the monthly notification of outstanding corrective actions is sent out, evaluate whether any of the outstanding corrective actions meet the above conditions. Send those that do to the Environmental Protection Division's Improvement Management Coordinator (IMC) so that she can enter the information into PFITS. The summary report will contain the following information, at a minimum:

- Date the corrective action was identified;
- Person that identified the corrective action;

- A description of the nature of the problem identified and what needs to be done to address the corrective action.
- Whether the corrective action was identified internal to LANL or External to LANL.

5.10 NOTIFICATIONS FOR NEW AND OVERDUE CORRECTIVE ACTIONS

When a new corrective action is entered into the ENV-RCRA MSGP Corrective Action Report Findings database, the FOD, ESH&Q Manager, Operations Manager, inspector (usually the DEP) and ENV-RCRA MSGP storm water personnel are notified automatically by e-mail (unless the corrective action is closed the same day it is entered). This will assist the FOD, ESH& Q Managers, Operations Managers and the DEPs with keeping track of new corrective actions.

An automatic e-mail is sent the first of each month notifying the FOD, ESH&Q Manager, Operations Manager and DEPs of all overdue corrective actions for their industrial facilities. The Environmental Protection Division Leader and ENV-RCRA Group Leader receive a web link that contains a bar graph showing corrective actions 30 to 60 days overdue, 60 to 90 days overdue, 90 days to 1 year overdue, and those greater than a year overdue. In addition, they receive a link with summary information on each corrective action overdue sorted by FOD.

6.0 REFERENCES

- Federal Register: *Final National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Industrial Activities.* Federal Register: September 29, 2008, Volume 73, Number 189.
- P300, *Integrated Work Management*
- P315, *Conduct of Operations Manual*
- PD103, *Worker Safety and Health Policy*
- SD100, *Integrated Safety Management System Description Document with Embedded 10 CFR 851 Worker Safety and Health Program*
- P101-18, *Procedure for Pause/Stop Work*
- PD410, *Los Alamos National Laboratory Environmental ALARA Program*
- P121, *Radiation Protection*
- ENV-DO QP-106, *Document Control*
- ENV-DO-QP-115, *Personnel Training*
- ENV-DO-QP-104, *Work Safety Review*

In addition to these documents, please read any site specific requirements before proceeding with work.

7.0 DEFINITIONS

Best Management Practice (BMP): Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "waters of the United States." BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. (*40 CFR Part 122.2)*

Control Measure: Any BMP or other method (including effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the United States.

CA: Corrective Action

DEP: Deployed Environmental Professional

EPA: Environmental Protection Agency

FOD: Facility Operations Director

MSGP: Multi-Sector General Permit

SWPPP: Storm Water Pollution Prevention Plan

8.0 ATTACHMENTS

Attachment 1- Annual Reporting Form

Attachment 2- NPDES Multi-Sector General Permit Routine Inspection Form

Click here for "Required Read" credit.

ATTACHMENT 1- ANNUAL REPORTING FORM

NPDES Permit Tracking No.:

EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

Annual Reporting Form

A. GENERAL INFORMATION

1. Facility Name:

2. NPDES Permit Tracking No.:

3. Facility Physical Address:

a. Street:

b. City: c. State: d. Zip Code: -

4. Lead Inspectors Name: Title:

Additional Inspectors Name(s):

5. Contact Person: Title:

Phone: - - Ext. E-mail:

6. Inspection Date: / /

B. GENERAL INSPECTION FINDINGS

1. As part of this comprehensive site inspection, did you inspect all potential pollutant sources, including areas where industrial activity may be exposed to stormwater?
☐ YES ☐ NO

If NO, describe why not:

NOTE: *Complete Section C of this form for each industrial activity area inspected and included in your SWPPP or as newly identified in B.2 or B.3 below where pollutants may be exposed to stormwater.*

2. Did this inspection identify any stormwater or non-stormwater outfalls not previously identified in your SWPPP? ☐ YES ☐ NO

If YES, for each location, describe the sources of those stormwater and non-stormwater discharges and any associated control measures in place:

NPDES Permit Tracking No.:

3. Did this inspection identify any sources of stormwater or non-stormwater discharges not previously identified in your SWPPP? ☐ YES ☐ NO

If YES, describe these sources of stormwater or non-stormwater pollutants expected to be present in these discharges, and any control measures in place:

4. Did you review stormwater monitoring data as part of this inspection to identify potential pollutant hot spots? ☐ YES ☐ NO ☐ NA, no monitoring performed

If YES, summarize the findings of that review and describe any additional inspection activities resulting from this review:

5. Describe any evidence of pollutants entering the drainage system or discharging to surface waters, and the condition of and around outfalls, including flow dissipation measures to prevent scouring:

6. Have you taken or do you plan to take any corrective actions, as specified in Part 3 of the permit, since your last annual report submission (or since you received authorization to discharge under this permit if this is your first annual report), including any corrective actions identified as a result of this annual comprehensive site inspection?
☐ YES ☐ NO

If YES, how many conditions requiring review for correction action as specified in Parts 3.1 and 3.2 were addressed by these corrective actions? ☐☐

NOTE: *Complete the attached Corrective Action Form (Section D) for each condition identified, including any conditions identified as a result of this comprehensive stormwater inspection.*

NPDES Permit Tracking No.:

C. INDUSTRIAL ACTIVITY AREA SPECIFIC FINDINGS

Complete one block for each industrial activity area where pollutants may be exposed to stormwater. Copy this page for additional industrial activity areas.

In reviewing each area, you should consider:

- Industrial materials, residue, or trash that may have or could come into contact with stormwater;
- Leaks or spills from industrial equipment, drums, tanks, and other containers;
- Offsite tracking of industrial or waste materials from areas of no exposure to exposed areas; and
- Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas.

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO

3. Have any control measures failed and require replacement? ☐ YES ☐ NO

4. Are any additional/revised control measures necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO

3. Have any control measures failed and require replacement? ☐ YES ☐ NO

4. Are any additional/revised c necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA _____:

Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO

3. Have any control measures failed and require replacement? ☐ YES ☐ NO

4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

NPDES Permit Tracking No.:

NOTE: *Copy this page and attach additional pages as necessary*

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO
3. Have any control measures failed and require replacement? ☐ YES ☐ NO
4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO
3. Have any control measures failed and require replacement? ☐ YES ☐ NO
4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO
3. Have any control measures failed and require replacement? ☐ YES ☐ NO
4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

NPDES Permit Tracking No.:

D. CORRECTIVE ACTIONS

Complete this page for each specific condition requiring a corrective action or a review determining that no corrective action is needed. Copy this page for additional corrective actions or reviews.

Include both corrective actions that have been initiated or completed since the last annual report, and future corrective actions needed to address problems identified in this comprehensive stormwater inspection. Include an update on any outstanding corrective actions that had not been completed at the time of your previous annual report.

1. Corrective Action # ☐☐ of ☐☐ for this reporting period.

2. Is this corrective action:
   - ☐ An update on a corrective action from a previous annual report; or
   - ☐ A new corrective action?

3. Identify the condition(s) triggering the need for this review:
   - ☐ Unauthorized release or discharge
   - ☐ Numeric effluent limitation exceedance
   - ☐ Control measures inadequate to meet applicable water quality standards
   - ☐ Control measures inadequate to meet non-numeric effluent limitations
   - ☐ Control measures not properly operated or maintained
   - ☐ Change in facility operations necessitated change in control measures
   - ☐ Average benchmark value exceedance
   - ☐ Other (describe): _____

4. Briefly describe the nature of the problem identified:

5. Date problem identified: ☐☐/☐☐/☐☐☐☐

6. How problem was identified:
   - ☐ Comprehensive site inspection
   - ☐ Quarterly visual assessment
   - ☐ Routine facility inspection
   - ☐ Benchmark monitoring
   - ☐ Notification by EPA or State or local authorities
   - ☐ Other (describe): _____

7. Description of corrective action(s) taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications or repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, basis for that determination:

8. Did/will this corrective action require modification of your SWPPP? ☐ YES ☐ NO

9. Date corrective action initiated: ☐☐/☐☐/☐☐☐☐

10. Date correction action completed: ☐☐/☐☐/☐☐☐☐ or expected to be completed: ☐☐/☐☐/☐☐☐☐

11. If corrective action not yet completed, provide the status of corrective action at the time of the comprehensive site inspection and describe any remaining steps (including timeframes associated with each step) necessary to complete corrective action:

NPDES Permit Tracking No.:

E. ANNUAL REPORT CERTIFICATION

1. Compliance Certification

Do you certify that your annual inspection has met the requirements of Part 4.2 of the permit, and that, based upon the results of this inspection, to the best of your knowledge, you are in compliance with the permit? ☐ YES ☐ NO

If NO, summarize why you are not in compliance with the permit:

2. Annual Report Certification

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

Authorized Representative Printed Name: Title:

Signature: Date Signed:

Maintenance Details

Requested: 12/6/2016 3:51:09 PM
Procedure: MSGP Stormwater Industrial Routine Facility Inspection (EPC-CP-Form-1020.1)
Last PM: N/A
Project: Routine Facility Inspections Dec 2016 (P-MSGP-RI-5158)

Target: 12/30/2016
Priority/Type: Normal / Inspection
Department: Science and Technology Operations

MSGP Program
RG121.9
TA-3-66 Sigma Complex

Contact:
Phone:

Reason: MSGP Stormwater Industrial Routine Facility Inspection

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

Tasks

#	Description	Rating	Meas.	Initials	Failed	N/A	Complete
	Weather Information						
20	Describe the weather at time of inspection in the Weather lookup table. If "Other" is chosen, provide description in task comments of this line. Document the temperature (F°) in the "Reading" field of this line.				☐	☐	☐
	Within the Facility Boundary						
40	Is the facility free of new discharges of pollutants that have occurred since the last inspection? If "Failed", describe:				☐	☐	☐
50	If "Failed" has a CAR been previously initiated for this new discharge? (Range: 0 - 0)				☐	☐	☐
60	Is the facility free of discharge of pollutants at the time of inspection? If "Failed" describe: (Range: 0 - 0)				☐	☐	☐
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "Failed" describe: (Range: 0 - 0)				☐	☐	☐
	Outfall Inspection (needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)						
90	**Monitored Outfall [018]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☐
100	**Monitored Outfall [018]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☐
110	**Monitored Outfall [018]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☐
120	**Monitored Outfall [020]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☐
130	**Monitored Outfall [020]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☐
140	**Monitored Outfall [020]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☐

150	**Substantially Identical Outfall [013]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☐
160	**Substantially Identical Outfall [013]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☐
170	**Substantially Identical Outfall [013]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☐
180	**Substantially Identical Outfall [014]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☐
190	**Substantially Identical Outfall [014]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☐
200	**Substantially Identical Outfall [014]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☐
210	**Substantially Identical Outfall [015]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☐
220	**Substantially Identical Outfall [015]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☐
230	**Substantially Identical Outfall [015]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☐
240	**Substantially Identical Outfall [016]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☐
250	**Substantially Identical Outfall [016]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☐
260	**Substantially Identical Outfall [016]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☐
270	**Substantially Identical Outfall [017]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☐
280	**Substantially Identical Outfall [017]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☐
290	**Substantially Identical Outfall [017]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☐
300	**Substantially Identical Outfall [019]** Free of Evidence of Erosion? (Range: 0 - 0)				☐	☐	☐
310	**Substantially Identical Outfall [019]** Flow Dissipation Devices Operating Effectively? (Range: 0 - 0)				☐	☐	☐
320	**Substantially Identical Outfall [019]** Free of Evidence of Pollutants in Discharges and/or Receiving Water? (Range: 0 - 0)				☐	☐	☐

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

340	**Gravel Bags [0300303100008]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☐
350	**Gravel Bags [0300303100008]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☐	☐
360	**Gravel Bags [0300303100009]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☐
370	**Gravel Bags [0300303100009]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☐	☐
380	**Rip Rap [0300304060005]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☐

390	**Rip Rap [0300304060005]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☐	☐
400	**Rip Rap [0300304060006]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☐
410	**Rip Rap [0300304060006]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☐	☐
420	**Rip Rap [0300304060007]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☐
430	**Rip Rap [0300304060007]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☐	☐
440	**Detention Pond [0300311020001]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☐
450	**Detention Pond [0300311020001]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☐	☐
460	**Detention Pond [0300311020002]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☐
470	**Detention Pond [0300311020002]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☐	☐
480	**Detention Pond [0300311020010]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☐
490	**Detention Pond [0300311020010]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☐	☐
500	**Detention Pond [0300311020011]** Control Measure is operating effectively? (Range: 0 - 0)				☐	☐	☐
510	**Detention Pond [0300311020011]** If "Failed", is control measure in need of maintenance, Repair, or Replacement?				☐	☐	☐

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

530	Material loading/unloading and storage areas inspected?				☐	☐	☐
540	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☐
550	Transfer areas for substances in bulk inspected?				☐	☐	☐
560	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☐
570	Produce/chemical storage areas (raw material) inspected?				☐	☐	☐
580	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☐
590	Liquid tank storage/secondary containment inspected?				☐	☐	☐
600	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☐
610	Industrial processing and finished product storage areas inspected?				☐	☐	☐
620	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☐
630	Equipment operation and maintenance areas inspected?				☐	☐	☐
640	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☐
650	Fueling areas inspected?				☐	☐	☐
660	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☐

670	Outdoor vehicle and equipment washing areas inspected?				☐	☐	☐
680	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☐
690	Machinery inspected?				☐	☐	☐
700	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☐
710	Waste handling and disposal areas inspected?				☐	☐	☐
720	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☐
730	Erodible areas/construction inspected?f				☐	☐	☐
740	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☐
750	Locations and sources of run-on to the site inspected?				☐	☐	☐
760	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☐
770	Non-stormwater/illicit connections inspected?				☐	☐	☐
780	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☐
790	Salt storage piles or pile containing salt inspected?				☐	☐	☐
800	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☐
810	Dust generation and vehicle tracking inspected?				☐	☐	☐
820	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☐
830	Housekeeping (Industrial materials/residues/trash in contact with stormwater) inspected?				☐	☐	☐
840	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☐
850	Leaks and spills inspected?				☐	☐	☐
860	Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☐
870	**Sector F [03003-F]** Baghouse for degradation that could limit efficiency and lead to excessive emissions inspected?				☐	☐	☐
880	**Sector F [03003-F]** Area/Activity controls adequate (appropriate, effective, and operating)? (Range: 0 - 0)				☐	☐	☐
Non-Compliance							
900	Free of incidents of observed non-compliance not associated with any of the above? (Range: 0 - 0)				☐	☐	☐
Additional Control Measures							
920	Are permit requirements satisfied with existing control measure(s)? If "Failed" describe additional control measures needed. (Range: 0 - 0)				☐	☐	☐
					☐	☐	☐

Labor

Labor	Assigned	Work Date	Reg Hrs	OT Hrs	Other Hrs
Gallegos, Marc	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):_____Date and Time:_____

"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:_____

Signature:_____Date:_____

ENV-RCRA-QP-047.1	
Effective Date: May 14, 2013	Next Review Date: April 14, 2015

Environment, Safety, Health Directorate

Environmental Protection – Water Quality and RCRA Quality Procedure

Inspecting Storm Water Runoff Samplers and Retrieving Samples for the MSGP

Reviewers:

Name:	Organization:	Signature:	Date:
Melanie Lamb	ENV-QPMO QA Specialist	Signature on file	3/7/13

Derivative Classifier: ☒ **Unclassified** ☐ **DUSA**_____

Name:	Organization:	Signature:	Date:
Anthony Grieggs	ENV-RCRA	Signature on file	5/14/13

Approval Signatures:

Subject Matter Expert:	Organization:	Signature:	Date:
Holly Wheeler	ENV-RCRA	Signature on file	3/20/13
Responsible Line Manager:	Organization:	Signature:	Date:
Terrill Lemke	ENV-RCRA Team Lead	Signature on file	5/3/13
Responsible Line Manager:	Organization:	Signature:	Date:
Anthony Grieggs	ENV-RCRA Group Leader	Signature on file	5/14/13

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History of Revisions

Document Number *[Include revision number, beginning with Revision 0]*	**Effective Date** *[Document Control Coordinator inserts effective date]*	**Description of Changes** *[List specific changes made since the previous revision]*
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1	02/13	Annual Review and Revision

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1.0 PURPOSE

This procedure describes the process for inspecting ISCO storm water runoff samplers and retrieving storm water runoff samples from all locations where the Los Alamos National Laboratory (LANL) conducts storm water sampling activities for the Multi-Sector General Permit (MSGP).

2.0 SCOPE

This procedure applies to the ENV-RCRA technical staff and subcontractor personnel conducting 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:

- ENV-RCRA technical staff and subcontract or other personnel who inspect storm water samplers and retrieve storm water samples for the MSGP.

The training method for this procedure is "self-study" (reading). 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 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-RCRA MSGP Sampling and Analysis Plan for the current monitoring year.
- Manual for Teledyne ISCO Sampler model 3700.
- Manual for Teledyne ISCO Avalanche sampler

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-RCRA offices:

- Completed work order for ISCO Sampler Inspection and Sample Retrieval and Collection forms (example in Attachment 2).

5.0 WORK PROCESSES

ISCO samplers are used to collect storm water runoff for Multi-Sector General Permit (MSGP) Program stations. ISCOs are designed to automatically collect water when the water surface is high enough to trigger the actuator and fill the sample bottles. Field personnel are required to inspect the sampling station while retrieving water samples and at other intervals determined by the project or as directed by work orders issued by project personnel.

A LANL Project Leader is the primary person with responsibility for the steps in this procedure. ENV-RCRA personnel will be appointed with responsibility for a subset of sampling stations.

If subsequent rain events occur before all sampler locations have been visited after the first rain event, finish the route to collect the first-event samples (safety permitting).

Inspections may be discontinued during periods or conditions that make sites dangerous for worker safety or prevent personnel from safely accessing sites (e.g., weather-related events such as flash floods, flooding, lightning, wildfires, hail, icy roads, deep snow, and LANL operations such as shots or burns at the OBOD sites).

5.1 EQUIPMENT AND TOOLS

Ensure the following equipment is available in the field vehicle:

- Copy of this procedure
- Copy of the Integrated Work Documents (IWDs)
- Charged spare battery(ies)
- Battery voltage tester
- Spare tubing (pump, suction, discharge types, sampler specific)
- Spare/replacement sample bottles (glass and poly)
- Shovel
- Wooden stakes
- Plastic wire “zip” ties
- Cell phone (only government cell phones with batteries removed are allowed in secure areas)
- Appropriate tools in tool box
- Issued Work Orders and associated forms
- Necessary access and station keys
- Coolers with ice or Blue Ice®
- Expanded Site Field Maps
- Nitrile gloves
- Paper Towels
- Marker pen (permanent, waterproof)
- Ball point pen
- Zip lock bags
- Safety glasses with side shields
- Chain of custody seals
- Sturdy hiking boots or steel toed shoes with soles that grip

5.2 PREPARING FOR FIELDWORK

Once the work orders have been approved, the following steps should be followed to prepare for fieldwork:

Step	Action
1	Receipt of a work order indicates that sampler inspections have been approved by the LANL Project Leader. Schedule work to be completed by the target date appearing on the work order(s).
2	Distribute work order(s) to field personnel. A sample Work Order form is provided in Attachment 1, ISCO Sampler Inspection and Sample Retrieval Form.
3	Inform (e.g., by e-mail) the Field Operations designee, 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.
4	For work at sites operated by Weapons Facility Operations or Nuclear Environmental Sites, notify the appropriate access control before traveling to those sites. The IWD Part II (2101 Form) addresses specific requirements and training for these sites.
5	Obtain any necessary additional paperwork before conducting this work, including IWD's, and excavation permits (if necessary).
6	Gather the required equipment (see section above) for the work to be done.
7	Set watch(s) to the precise Mountain Standard (not daylight saving) Time. This can be done by logging on to the time page at www.time.gov (or click on the clock icon on the lab's internal home page). When at the site, the clock time on the ISCO sampler needs to be verified. Clocks must be set to Mountain Standard Time at all times, with no daylight saving time adjustment.

5.3 INSPECTING THE SAMPLER

The following table details the inspection requirements for the sampler:

Step	Action
1	If conditions prevent a sampler inspection, document the conditions on the work order and notify the Project Lead or designee within 24 hours. Multiple attempts can be documented on the original inspection work order up to the target date. After the target date, return work order to the ENV-RCRA Storm Water Data Stewards Team for reissuance (if necessary).
2	Item 1: on work order (see example in attachment 2): Enter the date and time inspection and water retrieval is performed and the name(s) and Z number(s) of the field personnel performing the work in the upper right corner of the work order.
3	Item 2: Verify and document the sampler is ON and its condition upon arrival by checking the "Yes" or "No" box. Explain any non-functional status in third column.
4	Item 3: Verify and document the ISCO programming displays by checking the "Yes" or "No" box in second column. • For ISCO 3700 samplers = "Sampler Inhibited"

	OR • For Avalanche samplers = “Program Disabled” If No, repair or describe (e.g., “Done X samples”, or “sampler off”, etc). If more space is needed, continue notes in the “Additional Notes” section at the bottom of the page.
5	Don nitrile gloves and safety glasses.
6	Remove the lid from the sampler.
7	Item 4: If water was collected, check “Yes” and collect the water according to the steps in “Retrieving Storm Water Runoff Samples” below. Note: Complete the required MSGP Visual Assessment form to document the water appearance (foam, sheen, etc.). Ensure this form is submitted to the appropriate MSGP project personnel (see item 11). If No, describe (e.g., “no water collected”, “sampler off”) in the third column; check “No” for Item 4.
8	Item 5: Verify and document the sampler is set to the correct Mountain Standard Time +/- no more than 1 minute by checking the “Yes” or “No” box in the second column. 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”) in the third column.
9	Item 6: Review the Sampling Results report and document any error messages from the sampler display by checking the “Yes” or “No” box. If a message is displayed, record the message in the “Comments” section on page 2 next to the sample bottle being filled when the problem occurred. If there is no indication of flow and the sampler triggered due to a non-flow event (e.g., animal, tumbleweed), indicate this in the third column.
10	Item 7: For the Avalanche sampler equipped with an ISCO 701 pH Module, record the pH measurement taken at the time of Bottle 1 from the Combined Results report.
11	Item 8: For Avalanche samplers only, and if water was collected, check “Yes” and record the refrigerator temperature (°C) upon arrival. If no water was collected, or unable to review temperature, check “No” and describe in column 3 (e.g., no sample, dead battery).
12	Item 9: Verify and document whether sample volumes were retrieved by checking the “Yes” or “No” box. Refer to the volume retrieval instructions on page 2 of work order. Record the volume retrieved in third column.
13	Item 10: If water was collected, perform a visual assessment of the water using the MSGP program visual assessment form (not included in this procedure). Document whether a visual assessment was performed by checking the “Yes” or “No” box.
14	Item 11: Verify and document sample station equipment, model, serial number, actuator height, sampler program, and bottle configuration match the header on the work order page 1 by checking the “Yes” or “No”. If they do not match the data on the work order, ensure you are at the correct location. If the location is verified, check “No” and update inaccurate information.
15	Item 12: Verify and document power supply function. Use the voltage tester to check the voltage of the battery and record the voltage. Check “Yes” or “No” to indicate if battery voltage is acceptable (≥11.7 V for non-floating charged batteries at ISCO 3700 samplers and ≥11.0 for floating-charged batteries at Avalanche samplers as described in ENV-RCRA-QP-045).
16	Item 13: Verify and document the sampler passed the diagnostics test by checking the “Yes” or “No” box. Directions for running the diagnostics test is provided in ENV-RCRA-QP-045)

	If maintenance is necessary and can be performed at the time of inspection, perform the work and describe in third column. If maintenance cannot be completed at the time of inspection, then describe the condition and work needed in the third column.
17	Item 14: Verify and document the sample tubing passed a suction test by checking the "Yes" or "No" box. Check the condition of sample tubing and vent tubing. If maintenance (e.g., clearing the tube, replacing the tube) is necessary and can be performed at the time of inspection, perform the work and describe in third column. If maintenance cannot be completed at the time of inspection, then describe the condition and work needed in third column.
18	Item 15: Verify all cable and electrical connections are attached and secure by checking the "Yes" or "No" box. If maintenance (e.g., tightening connection, replacing cables) is necessary and can be performed at the time of inspection, describe the work performed in the third column. If more space is needed, continue notes in the "Additional Notes" section. If maintenance cannot be completed at the time of inspection, then describe the condition and work needed in the third column.
19	Item 16: Verify and document sampler is ON prior to departing the site by checking the "Yes" or "No" box. If the sampler is not on, document the reason.
20	Item 17: If the sampler tripped and requires reset of the sampling program, reset the actuator by toggling the switch to "Reset" then back to "Latch" • Verify and document the ISCO programming displays the following by checking the "Yes" or "No" box in column 2, page 1. • ISCO 3700 stand-alone samplers = "Sampler Inhibited" OR • Avalanche samplers = "Program Disabled" If an error occurs, reconfigure the sampler (see ENV-RCRA-QP-045 for settings)
21	Item 18: Verify and document any maintenance completed while on site. Describe the work performed or indicate "none completed" in third column. Maintenance items may include (but are not limited to) battery replacement, tubing clearing or replacement, site clearing, securing electrical connections, or sampler diagnostics or repair.
22	Item 19: Verify and document any follow-on maintenance needed that could not be completed while on site. Describe the needed maintenance in the third column. If more space is needed, continue notes in the "Additional Notes" section. A separate work order for the station maintenance will be issued. If no follow-on maintenance is required, indicate "none required" in third column. Maintenance items may include (but are not limited to) battery replacement, tubing clearing or replacement, site clearing, securing electrical connections, or sampler diagnostics or repair.
23	Item 20: If no storm water samples were collected by the sampler, draw a line through page 2 of the work order, initial, and date. If storm water samples were collected by the sampler, skip to "Retrieving storm water runoff

	samples" section.
24	Replace and secure the sampler lid and secure the sampler shelter (if sampler is in a shelter).
25	Review the completed work order(s) for accuracy and completeness and sign and date "Review by Signature" line on page 2 of work order.
26	Item 21: Review the work order(s) for accuracy and certify that the information submitted is "true, accurate, and complete" by signing and dating "Lead Signature" line on page 1.
27	Return completed original work orders to the Project Leader the same day following completion of field work. If original work orders must remain with collected samples, return photocopies of incomplete work orders to the Project Leader the same day field work is completed. Stamp or write "Copy" on the work order returned.

5.4 RETRIEVING SAMPLES

The following steps should be followed when retrieving samples:

Step	Action
1	Don nitrile gloves and safety glasses.
2	See flow chart in Attachment 1. Item 5: Refer to the "Earliest Sample Collect Date" on work order. If the "Earliest Sample Collect Date" field is empty OR the ISCO sample collection date is ON or AFTER that date, samples may be retrieved per the volume requirements given on the work order. Continue with next step below. If the ISCO sample collection date is BEFORE the "Earliest Sample Collect Date": • Indicate "non-qualifying storm event" in Item 5 third column. • Discard the collected sample water on the ground. • Skip to Step 10 below.
3	Remove filled and partially-filled bottles from the carousel.
4	Add up the total volume of water collected and check that the collected volume of water in glass and poly matches the required volume in the header of the work order page 2. The volume of water required to complete a sample set may vary. Retrieval of partial volume is allowed as long as the minimum specified volume is met. For "Partial Volume Retrieval Allowed, Minimum Volume NOT Met" samplers: If sample volume was sufficient, continue with next step 5 below. If sample volume was NOT sufficient: • Record the date and time the ISCO collected water in each glass and poly bottle by the position number in the carousel in Item 21. • Record total volume retrieved as "0" in Item 22. • Pour out all water on the ground. • Skip to step 11 below. For "Partial Volume Retrieval Allowed, Minimum Volume Met" samplers: • Record the date and time the ISCO collected water in each glass and poly bottle by the position number in the carousel on Item 21 of page 2

	• Record the specific ISCO displayed message for each bottle, if present, in the "Comments" column on Item 21. • Record total volume retrieved in Item 22. • Skip to step 11 below.
5	For samples retrieved, place lids onto the sample bottles with storm water.
6	Write the date and time collected, Station Number, and the corresponding carousel number on each retrieved sample bottle. Obtain the sample collection date and time from the ISCO sampler.
7	Item 21: Record the date and time the ISCO collected water in each glass and poly bottle by the position number in the carousel. Record the specific ISCO displayed message for each bottle, if present, in the "Comments" column.
8	Item 22: For "Partial Volume Retrieval Allowed, Minimum Volume NOT Met" samplers, if sample volume was NOT sufficient, record the total volume retrieved as "0" and discard sample water on ground. For "Partial Volume Retrieval Allowed" samplers, record the total volume retrieved.
9	Place retrieved sample bottles in a cooler with blue ice (or equivalent).
10	Return any excess water or collected volume that exceeded the amount required to the ground.
11	Install new sample bottles in the carousel for the next sampling event. The number and type of bottles may vary. Ensure bottles match the configuration specified on page 1 of the work order.
12	Item 23: Document any additional notes or site information in the "Additional Notes" section.
13	Return to steps in "Inspecting the Sampler" above.

5.5 DELIVERING SAMPLES

The following steps should be followed when delivering samples:

Step	Action
1	If samples were collected, deliver the samples, and completed, reviewed, and signed work order to the Storm Water Program Laboratory.
2	Item 25: Relinquish samples to MSGP personnel by signing "Relinquished By" or if self processed, refer to ENV-RCRA-QP-048, Processing MSGP Storm Water Samples.
3	Place samples in the refrigerators in the laboratory within the basement of TA-59-1 and lock the refrigerator to prevent tampering.

6.0 REFERENCES

None

7.0 DEFINITIONS

None

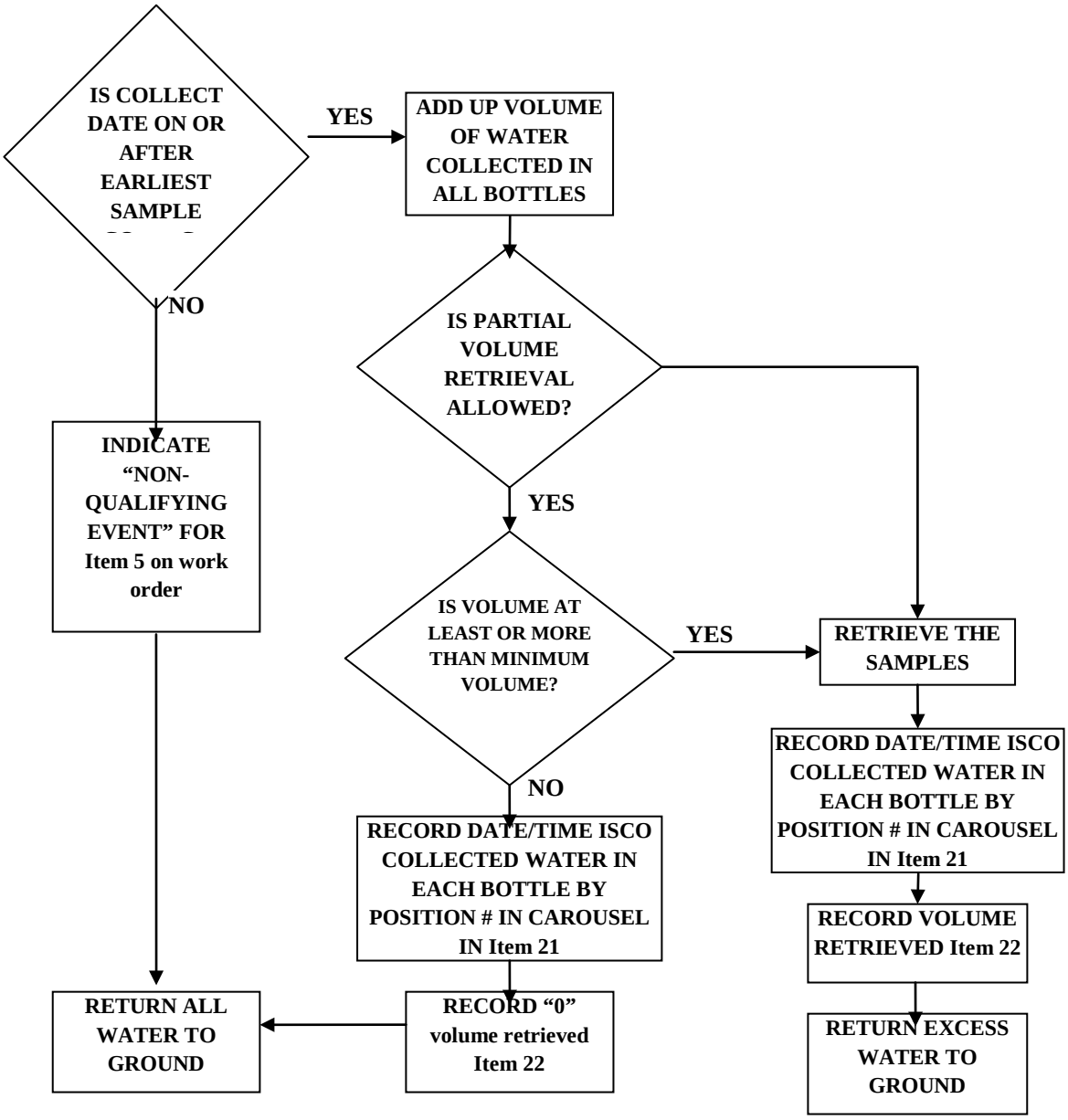
8.0 ATTACHMENTS

Attachment 1- Flow Chart for Sample Retrieval

Attachment 2- ISCO Sampler Inspection and Sample Retrieval Form

By requesting credit for this required reading I acknowledge that I have read and understand the contents of this document and I will follow and meet the requirements in this document unless it is unsafe to do so.	Click to Acknowledge

ATTACHMENT 1- FLOW CHART FOR SAMPLE RETRIEVAL



ATTACHMENT 2- ISCO SAMPLER INSPECTION AND SAMPLE RETRIEVAL FORM

ENV-QP-047.0

LANL Multi-Sector General Permit
ISCO Sampler Inspection and Sample Retrieval Form

Form 047-1 (3/2011)

Outfall: **3-MFS-1 : 03-0038W** Project ID: **P-MSGP-2046** Work Order ID: **MSGP-26090**

Target Date: **9/30/2012**

Project: MSGP Q3 Sampler Inspection & Retrieval

Reason: MSGP ISCO Sampler Inspection - Sample Retrieval

Earliest Sample Collect Date: 8/1/2012

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	210J01655	Actuator Height	2"
ISCO 3700 Sampler	Teledyne	3700	209H01284	Bottle Set	12c- 1 1L Glass, 11 1L Poly
ISCO 3700 Sampler	Teledyne	3700	209H01284	Program	Storm / Multiplex 10 min delay
Pb-Acid Battery	MK Powered	110 A-h	MSGP-110-0310-06	Voltage	> 11.7 V

ISCO Sampler Inspection Tasks		Note: If "No", provide explanation and/or correct information.
ON ARRIVAL		
Is sampler ON and functioning properly upon arrival?	❒ Yes ❒ No	
Does ISCO display either "Sampler Inhibited" or "Program Disabled" ?	❒ Yes ❒ No	
Is ISCO time delta < 1 min (MST)? If NO, record adjustment.	❒ Yes ❒ No	
Is any water collected? If YES, complete Page 2.	❒ Yes ❒ No	
Does the Sampling Results report indicate any error messages(s)? If YES, record error message(s) in the applicable Bottle Comment field on Page 2.	❒ Yes ❒ No	
Is any water collected on or after the "Earliest Sample Collect Date"?	❒ Yes ❒ No	
Was sample volume retrieved?	❒ Yes ❒ No	
Was a Visual Assessment performed? If YES, complete the MSGP Visual Assessment form (ENV-RCRA-QP-064.0 Att. 1).	❒ Yes ❒ No	
ON DEPARTURE		
Is the equipment information listed above, including specifications, correct?	❒ Yes ❒ No	
Are electrical connections secure?	❒ Yes ❒ No	
Record battery voltage(s). Voltage(s) > 11.7 V ?	❒ Yes ❒ No	
Does the ISCO diagnostics test pass?	❒ Yes ❒ No	
Does sample tubing pass suction test?	❒ Yes ❒ No	
Is sampler ON upon departure?	❒ Yes ❒ No	
Has the actuator swtich been reset to "Latch"?	❒ Yes ❒ No	
Does ISCO display either "Sampler Inhibited" or "Program Disabled"?	❒ Yes ❒ No	
If any maintenance completed during inspection, check YES and describe.	❒ Yes ❒ No	
If any follow-on maintenance is required, check YES and describe.	❒ Yes ❒ No	

Page 1 of 2 for MSGP-26090

ENV-QP-047.0

LANL Multi-Sector General Permit
ISCO Sampler Inspection and Sample Retrieval Form

Form 047-1 (3/2011)

Outfall: **3-MFS-1 : 03-0038W** Project ID: **P-MSGP-2046** Work Order ID: **MSGP-26090**

Complete if sample bottles contain water OR to to record ISCO message

Sample Volume Requirements		
Bottle Type: Poly or Glass bottles	**Minimum Volume (L):** 0.5	**Maximum Volume (L):** 1

Bottle #	Bottle Type	Date:	Time (MST):	Comments
1	❒P ❒G	/ /2012		
2	❒P ❒G	/ /2012		
3	❒P ❒G	/ /2012		
4	❒P ❒G	/ /2012		
5	❒P ❒G	/ /2012		
6	❒P ❒G	/ /2012		
7	❒P ❒G	/ /2012		
8	❒P ❒G	/ /2012		
9	❒P ❒G	/ /2012		
10	❒P ❒G	/ /2012		
11	❒P ❒G	/ /2012		
12	❒P ❒G	/ /2012		
13	❒P ❒G	/ /2012		
14	❒P ❒G	/ /2012		

Total Volume Retrieved (liters):	Poly	Glass

Relinquished by Signature	Date:	Time:	Received by Signature	Date:	Time:

Additional Notes:

LANL PERSONNEL USE ONLY (Initials and dates)		
Accepted	Tech QC	ENV-RCRA Review

Page 2 of 2 for MSGP-26090

PRO-0493-STO-HAZMAT, R1

STO Spill Response Procedure

Effective Date: 12/08/14

Supersedes: PRO-0493-STO-HAZMAT, R0

Next Review Date: 12/08/16

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Usage Mode: ☒ Reference ☐ UET UET Sections: _____

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Reviewers

Function	Name, Z#	Signature	Date
Emergency Planning	Rich Norman, 200457		10-14-14
Operations Manager	Kerry Smith, 209733		12/1/14
Operations Manager	Terry Morrison, 084320		11/19/14
ESH Manager	Garry Schramm, 152637		11-18-14

Approval Signatures

Responsible Manager

Name	Z#	Signature	Date
Stephanie Griego	140892		12/5/14

Facility Operations Director

Name	Z#	Signature	Date
Cliff Kirkland	231114		12/8/14

Classification Review

☒ Unclassified ☐ UCNI ☐ Classified _____

Name	Z#	Signature	Date
Ed Pitchkolan	199035		10/8/14

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Description: Periodic Review, No Revision		
PRO-0493-HAZMAT, R1	12/08/14	Major
Description: Editorial changes throughout document, updated references and organizations.		

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1.0 PURPOSE

This procedure provides emergency actions and a formal approach to responding to spills of hazardous materials including:

- Spill prevention,
- Spill response,
- Staging response materials; and,
- Response preparations

2.0 SCOPE

This procedure applies to Science and Technology Operations (STO) personnel involved in responding to spills within STO managed facilities with hazardous materials (including direct, deployed and subcontractor employees).

3.0 IMPLEMENTATION

PRO-0493-STO-HAZMAT

4.0 INTRODUCTION

If handled properly, a spill may be nothing more than a nuisance. If handled improperly, a spill can seriously disrupt activities and the STO mission. At worst, a spill can cause personnel injury/illness, environmental damage, and/or property damage.

To prepare for spill, you should: (1) learn about the hazards of the spills in your workplace, (2) understand processes/controls for spill prevention and containment, (3) understand the responses to spills and response procedures for higher probability spills, (4) make sure that you have the personnel equipment and training necessary to follow those procedures, and (5) practice spill response.

In most cases, incidental and simple spills involve small quantities of materials and, if precautions are taken, present minimal hazards. Local workers are usually the most appropriate people to clean up simple spills because them are more likely than others to be familiar with the spilled material's hazardous characteristics; can respond quickly; know about other potential hazards or complicating factors in their work area; should be familiar with the proper cleanup techniques for a particular spill; and are authorized by their management to clean up simple spills through written procedures or IWDs.

Complex spills require Emergency Operations (EO) assistance because of the spill's size or its unusual hazards. Trained hazardous material spill responders have learned that it is much better to be overly cautious in responding to a spill than to risk lives for something that "shouldn't be too dangerous." Do not downplay the seriousness of large or complex spills.

The priority of actions taken during spill response shall be (1) protect personnel, (2) protect the environment, and (3) protect facility and programmatic equipment.

5.0 DEFINITIONS/ACRONYMS

5.1 Incidental Spill:

A minor spill incidental to routine work where no special spill response is needed. (For example: minor drips from a pipette onto an absorbent, drips from a chemical container cap, or minor spills of analytical chemical, sample, or other materials. Also, a minor spill that is entirely confined within a working fume hood, glove box, dry box, secondary containment, or other containment and that does not create exposure beyond the containment). Incidental spills are limited to the following conditions:

- The spill is minor and incidental to routine work and anticipated to happen; and,
- The hazards and controls created by the spill are bounded by the IWD or other procedure; and,
- The current exposure assessment is adequate to address cleanup; and,
- The worker is authorized to cleanup the incidental spill by their management.

5.2 Simple Spill:

A spill that is not a part of routine work, but may be cleaned up by local workers. Simple spills do not require Emergency Operations (EO) assistance to manage. Attributes of a simple spill include the following:

- The hazards and controls created by the spill are bounded by the IWD or other approved procedure.
- The workers(s) are authorized to cleanup the simple spill by their management.
- The worker(s) are trained in spill response.
- The current exposure assessment is adequate to address spill cleanup.
- Respiratory protection is not required to clean up the spill.
- Workers have appropriate PPE and spill cleanup materials.
- Does not endanger non-involved workers.
- Does not endanger the environment or facility.
- Lacks potential to become an emergency.
- There are no electrical safety concerns.

5.3 Complex Spill:

A spill that is not a part of routine work and requires EO response (SEO-1 – Emergency Response - HAZMAT) for cleanup. Attributes of a complex spill include any of the following:

- The hazards and controls are NOT identified in the IWD, or exceed those in the IWD or other approved procedure.
- The worker is NOT authorized to cleanup the spill by their management.
- The current exposure assessment is NOT adequate to address spill cleanup.
- Workers do NOT have appropriate personal protective equipment (PPE) and spill clean-up.
- Respiratory protection is required to cleanup the spill.
- Does endanger non-involved workers.
- Does endanger the environment or facility.

- The spill has the potential to become an emergency, personnel are injured, fire is present, or there is a gas leak (CALL 911).
- There are electrical safety concerns.
- In a confined space, or releases hazardous vapors in an area that is unventilated.
- There is need for building evacuation or increased traffic control or increased building security
- Incompatible or reactive materials are spilled.
- Flammable materials in quantities that are not approved to be cleaned up by management are spilled.
- Carcinogenic or highly toxic materials are spilled.
- Lastly, a simple spill where the workers are not comfortable performing spill cleanup may be managed as complex.

5.4 Involved Worker:

Workers directly involved in the spill area, causing the spill, or in the immediate vicinity.

5.5 Immediate Action:

Emergency action that should be accomplished promptly and before any follow-up actions. When multiple emergency actions are required, they may be performed simultaneously unless there is a specific order of actions required.

5.6 Spill Kit:

A kit that is an accumulation of supplies useful in responding to spills. Supplies that may be in the spill kit include barrier devices, absorbents, PPE, bags and are customized to the activity or facility that may cause a spill. Spill kits are maintained and inventoried on a regular basis. Details for Spill Kits are included in Appendix C.

5.7 Acronyms

EO – Emergency Operations

ENV - Environmental

ESH – Environment, Safety, Health and Quality

FOD – Facility Operations Director

IHS – Industrial Hygiene and Safety

IWD – Integrated Work Document

HAZMAT – Security and Emergency Operations – Emergency Response (SEO-1)

OM – Operations Manager

PIC – Person in Charge

PPE – Personal Protective Equipment

RLM – Responsible Line Manager

RCT – Radiological Control Technician

STO- Science and Technology Operations

WMC – Waste Management Coordinator

6.0 RESPONSIBILITIES

Refer to section 8 for detailed responsibilities for spill response. Additionally, the following responsibilities are developed in this document.

6.1 ESH (deployed IHS, RCT, ENV, WMC)

Prepare and maintain facility spill kits as directed by the ESH/WS Manager and the Operations Manager.

6.2 Facility Operations Director (FOD)

Responsible to:

- Establish and maintain the safety, security, and environmental compliance envelope.
- Approve and issue procedures that accurately establish administrative, technical, and response guidance for the overall safe, secure, and environmentally compliant operation of the assigned facilities.
- Request and ensure that FOD personnel (operations, maintenance, facility engineering, ES&H, waste management, technical support, and administrative personnel) have appropriate training and qualifications to support facility and programmatic activities.
- In emergencies, ensure that personnel know who to call and what to do. For medical emergencies, life-threatening situations such as a fire, explosion, bomb threat, or terrorist attack call 911. Callers using mobile phones should be prepared to state the location of the emergency as precisely as possible. For all other situations requiring immediate response or dispatch, to include abnormal/unusual events, unattended packages, spills, leaks, and contamination contact Emergency Management by calling the Emergency Operations Support Center (EOSC) at 667-6211.
- Assist the EO-EM IC or EM at the scene of an emergency, and provide support to the EOC during activation.

6.3 Operations Manager (OM)

Responsible to oversee development and placement of spill kits adequate to respond to spills for facility or maintenance, activities that are a concern for the facility.

6.4 Person-in-charge (PIC)

Responsible to include spill prevention and response controls and processes in developing IWDs or other work control documents, and as necessary for higher probability or risk spill to document them.

Responsible to create and maintain spill kits adequate to respond to spills for activities where they are the PIC.

7.0 GENERAL REQUIREMENTS FOR A SPILL RESPONSE

7.1 Spill Prevention Processes/Controls

Spills can occur during a material's storage, transportation, or transfer, as well as in a laboratory. Spill prevention minimizes the likelihood of a spill. Details on spill prevention programs are in Appendix A.

7.2 Know Your Hazards and know Spill Response Plans as needed (Refer to Appendix B for more details)

PICs take into consideration the "what-if" planning for spill response and potential problems. Include spill prevention and response controls and processes in developing IWDs or other work control documents. Document controls for materials with unique specific hazards (e.g. Lead, Mercury, Plutonium) and spills of higher probability or risk.

Organizations should ensure that bounding conditions for simple versus complex spills are clearly identified and communicated so that employees have a clear understanding of when a spill is no longer simple and outside assistance is required.

Where non-routine and/or specific procedures for spill response are a important control, they should be included in the IWD or other local document that covers a group of activities, a facility, a work group, etc.

7.3 Make Materials and Equipment Available

PICs shall prepare and maintain spill kits appropriate for the activity. Operations Managers shall prepare and maintain spill kits appropriate for facility operations and to address major potential spill hazards in the facility. Details on Spill Kits are in Appendix C.

7.4 Routinely Practice Spill Response

Facility and Programs should practice spill response to verify procedures and IWD effectiveness. Simple training that includes tabletop discussions can be used to introduce and verify personnel knowledge about specific spill responses.

8.0 SPILL RESPONSE EMERGENCY INSTRUCTIONS

Note: This section applies to simple and complex spills. Incidental Spills (see definitions) are not required to follow this section.

Action	Responsible Person
Warn Others (This is an immediate action an applies to both simple and complex spills.) **WARNING** **IF THERE IS A FIRE, INJURY, GAS LEAK OR OTHER EMERGENCY – CALL 911 FIRST. THESE CIRCUMSTANCES DEFINE SUCH SITUATIONS AS A COMPLEX SPILL AND REQUIRE EO RESPONSE. IF THERE ARE INJURED PERSONNEL, THE PRIORITY IS TO FIRST CARE FOR THE INJURED.** The **Involved Workers** must immediately communicate the spill to the workers in the immediate vicinity. The **Involved Workers** shall notify, or have a co-worker immediately notify the First Line Manager (RLM) and the Operations Manager. The **RLM** shall notify their Line Management. The Operations Manager shall notify the FOD, or designee. Note: For off-hours response the Duty Operations Manager shall be contacted at pager # 664-4444.	Involved Workers RLM Operations Manager
Stop the Spill – If it is safe to do so (This is an immediate action and applies to both simple and complex spills.) **WARNING** **INVOLVED EMPLOYEES SHOULD ONLY ATTEMPT TO STOP THE SPILL IF IT IS SAFE TO DO SO AND SHOULD NOT LINGER IN THE SPILL AREA TO PERFORM THIS ACTION. IF IN DOUBT, EXIT THE AREA AND SEEK ASSISTANCE.** **Involved Workers** should stop the work that caused the spill and if possible stop the spill. This may be performed simultaneously with warning others. I some cases simple actions such as righting an overturned container, shutting a valve, or applying approved and ready-to-use absorbents will reduce or stop the spill.	Involved Workers

Once Involved Workers have exited the area, they should not reenter the spill area to further stop a spill. Re-entry will be controlled to ensure personnel exposures are prevented.	
Isolate the area This is an immediate action and applies to both simple and complex spills. The **Involved Workers and Responders** shall isolate the area to prevent non-involved workers from being exposed to the spill area. For a simple spill this may be as simple as closing a door. For larger spills or a complex spill this may require use of barricade material and warning signs. Note: Barricade and other spill response materials are in the spill kit.	Involved Workers and Non-Involved Workers responding to assist
Reduce Exposure to Personnel: This is an immediate action and applies to both simple and complex spills. **Involved Workers that may have been exposed to spilled materials** or their by-products shall be taken to Occupational Medicine by their RLM. All **Non-involved Workers** and personnel in the adjacent areas shall move well away from the area to minimize potential exposure risks. For a small simple spill this may require minimal actions. For example, a small simple spill may be easily isolated to a room or section of a facility. **EO and Operations Manager**, with advice from ESH, has the key responsibility to ensure that all employees are moved to a safe area to prevent inadvertent exposure to airborne exposures, or other exposures from the spill or its vapors. In some cases, spills may require evacuation of all or part of a facility. The **Operations Manager** should evaluate the ventilation systems; drain systems, etc. to determine if any system alignment changes need to be made to reduce the spread of the spill and airborne concerns or other hazards from the spill. This could include securing unfiltered ventilation, redirecting a ventilation duct that is blowing on the spill area, securing a fan, increasing exhaust filtered ventilation flow from a spill area, isolating a drain system, and protecting the environment. The Operations Manager should consult with involved workers, ESH, ENG as needed. Facility **ESH** staff shall respond to all simple and complex spills as directed by the Operation Manager and/or EO. **IHS and RCT** staff (for complex spill EO) shall verify that the spill has not spread by appropriate observations and measurements. Particular attention should be on verifying that non-involved workers are not exposed to hazards resulting from the spill, such as liquids, vapors, gases, fumes, etc.	Exposed Workers, RLM All Workers EO, Operations Manager, IHS, Engineering IHS, RCT, ENV, WMC IHS, RCT, EO

Action	Responsible Person
Determine if the spill is simple or complex This is not an immediate action – in most cases. **If there is any doubt on the spill being potentially complex, or if workers are not comfortable performing spill cleanup – conservatively assume the spill is complex and seek assistance from EO.** While spill response should be timely, there are few situations when one must unduly rush to classify and cleanup a spill. Situations where speed is of the essence should have local IWDs and procedures to address that circumstance. The pace of response should be in a controlled fashion with emphasis on good decision-making. Involved Workers shall classify the spill. For most spills, the decision to classify the spill as simple vs. complex is clear. There are two types of spills. • Simple spills, which the authorized worker with an approved IWD or procedure can clean up (refer to definitions). • Complex spills, which require EO assistance (refer to definitions). When the classification decision is more difficult, **Involved Workers** should methodically evaluate the spill, consult their PIC and RLM, consult procedures, consult MSDS sheets, consult with ESH, and Operations as needed.	Involved Workers
Cleanup a Complex Spill **Involved Workers** contact HAZMAT for assistance at 667-6211. **Involved Workers** shall obtain the most up-to-date inventory of chemicals in the spill area and provide that to Emergency Responders **Operations Manager** meet with HAZMAT response and provide assistance as requested. IHS, RCT, WMC, ENV rallies at the Emergency Response staging area to provide advice and support assistance to HAZMAT	Involved Workers Involved Workers Operations Manager Operations Manager, ESH, WMC

Action	Responsible Person
Cleanup A Simple Spill **CAUTION 1** **UNLESS OTHERWISE APPROVED BY THE RLM, THE TWO-PERSON RULE APPLIES TO CLEANUP OF SIMPLE SPILLS. (NOT TO INCIDENTAL SPILLS.)** **CAUTION 2** **IF THE SPILL PRESENTS HAZARDS THAT ARE BEYOND THE LOCAL IWD OR APPROVD PROCEDURE, THEN THE SPILL IS COMPLEX.** **Involved Workers** follow the guidelines in the IWD or local procedure for cleaning up a simple spill. **IHS and RCT** staff shall monitor conditions in the spill area to measure the level of exposure that personnel are exposed to. Note: A general discussion of spill response is located in Appendix A.	Involved Workers RLM, Operations Manager, and ESH
Document the Process: The **Operations Manager** will document the spill cleanup process in the Operations Manager's logbook, if applicable	Operations Manager
Post Spill Cleanup and Follow-up Some spills leave residual conditions in the area that require further decontamination and/or ESH clearance to release the area to routine operations. **Operations Manager** will involve Waste Management personnel to manage spill cleanup materials. **IHS and RCT** staff may be asked to reconstruct exposures to workers in the spill area and should seek assistance from their Supervisors as needed.	Operations Manager, ESH, WMC IHS, RCT

Action	Responsible Person
Return to Normal Operations and Follow-up **CAUTION** **ONLY THE OPERATIONS MANAGER OR EO HAS THE AUTHORITY TO RELEASE A SPILL AREA FOR NORMAL OPERATIONS TO RESUME. (This does not apply to incidental spills.)** **Operations Manager** with advice from Involved Workers, the PIC, ESH, and WMC will determine when to transition from cleanup operations to normal operations. Normally, a fact-finding or critique may be needed following a spill. In some cases, normal operations should not be allowed until that is complete.	Operations Manager

9.0 SPILL KIT INSTRUCTIONS

- PICs shall prepare and maintain spill kits appropriate for the activity. Operations Managers shall oversee preparation and maintenance of spill its appropriate for the facility and to address major potential spill hazards in the facility. ESH/WS staff will prepare and maintain spill kits for facilities as directed by the ESH Manager and Operations Manager. For example, RP staff for radiological facilities should prepare spill kits appropriate for spill response to radiological materials.

- Spill Kit Owners shall regularly inspect all kits and equipment to ensure that they will function properly when needed.

- A tamper-indicating device may be used to ensure that the spill kit is always ready to use.

- Recommendations for Spill Kits are in Appendix C.

10.0 REFERENCES

Guide for Hazardous Material Spill Response Planning in Laboratories, ACS, 1995
P 101-13, Electrical Safety Program
P 101-14, Chemical Management
P 101-32, Worker Exposure Assessments
P 300, Integrated Work Management
P 313, Roles, Responsibilities, Authorities, and Accountability
P 322-4, Laboratory Performance Feedback and Improvement Process
P 405, National Environmental Policy Act (NEPA), Cultural Resources, and Biological Resources (NCB) Reviews
P 1201-4, LANL Emergency Procedures and Protective Actions

11.0 APPENDICES

Appendix A, Spill Prevention
Appendix B, Spill Response Guidelines
Appendix C, Spill Kits

Appendix A, Spill Prevention Methods

Page 1 of 2

Acknowledgement:

Portions of the following are excerpted from the American Chemical Society's pamphlet "Guide for Chemical Spill Response Planning in Laboratories. Prepared by the American Chemical Society's CEI/CCS Task Force on Laboratory Waste Management American Chemical Society, Washington, DC 1995

Common examples of spill causing incidents and associated prevention techniques are shown in Table 1. Laboratory spills can occur during a chemical's storage, transportation, or transfer, as well as in the actual experiment. A spill prevention program for storage areas should include the following:

- Sturdy shelves and properly designed storage areas to minimize breakage and tipping;
- Secondary containment for stored chemicals and materials;
- Containers stored by hazard class;
- Larger containers stored closer to the floor;
- Containers stored on shelves sufficiently away from the shelf edge to minimize the danger of falling;
- Storage shelves with lips to reduce the danger of falling;
- Regular inspection of the integrity of containers; and
- Seismic security in earthquake-prone areas

To minimize spills during transport, a laboratory should integrate the following:

- carts, where appropriate,
- safety containers,
- rubberized buckets,
- straps to secure containers, and
- properly trained and thoughtful workers.

For the transfer of liquids from one container to another, the risk of spills can be reduced by

- paying careful attention to the size of containers to avoid overfilling;
- using pumps or other mechanical devices rather than simply pouring directly into a container;
- providing spill containment to capture any leaks; and
- bonding and grounding containers when flammable liquids are involved.

In addition to chemical spills, water spills can be caused by loose connections or breaks in lines to water condensers or cooling systems. Such spills can cause damage and inconvenience, even if they do not present environmental or health risks. Appropriate planning, including use of security clamps or devices to prevent loosening of connections or automatic shut-off devices, can reduce the likelihood of flood damage. Occasionally, a laboratory may be affected by a leaking roof or a flood elsewhere in a building. Planning to prevent damage from incidents should include the protection of instruments that might be harmed by water. Similarly, storing chemicals and supplies so that they will not be touched by leaking water will minimize damage and inconvenience.

Appendix A, Spill Prevention Methods (continued)

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While considerable attention is given to potential spills or leaks of liquids, laboratories using gases should also develop spill prevention plans for these materials. Such plans should consider safety concerns related to securing tanks and other gas containers. Additionally, frequent checks of valves and tubing can be useful in spill and leak prevention. A laboratory should take care to prevent gas from escaping down a drain or up a fume hood.

Finally, pay attention to physical details in the laboratory, such as

- reducing clutter and unnecessary materials.
- Eliminating tripping hazards and other obstructions, and
- Having all needed equipment readily available before starting work.

In addition to prevention or spills, having an up-to-date list of chemicals in the laboratory is important to those responding to a spill or emergency responders.

Table 1: Spill Prevention:

Potential Cause of Spill	**Prevention Technique**
Container, such as a flask or beaker, tips over	Secure containers and equipment to minimize the possibility of tipping.
Container dropping	Keep containers and experimental equipment as low as possible.
Breaking a container or a piece of experimental apparatus	Protect containers from breakage by keeping other items from falling on them.
A runaway reaction	Plan experimental reactions to anticipate and to provide controls for undesired outcomes such as overheating.
Releases during transfer of materials from one container to another	Pay attention to what you are doing. Provide secondary containment in the event of spills.
Holes and other leaks in transfer equipment such as pipes, hose, or valves	Check for holes or leaks before use.
Placing material in an incompatible container	Check for compatible uses of chemicals, particularly solvents or aggressive solutions. Check the material and construction of containers and equipment with a goal of maintaining structural integrity.
Breakage of thermometers or similar experimental equipment	Select equipment that has reduced potential for breakage, e.g., replace mercury thermometers and electronic temperature devices.

Appendix B, Discussion of Spill Response

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Acknowledgement:

Portions of the following are excerpted from the American Chemical Society's pamphlet "Guide for Chemical Spill Response Planning in Laboratories. Prepared by the American Chemical Society's CEI/CCS Task Force on Laboratory Waste Management American Chemical Society, Washington, DC 1995.

Introduction to Spill Response and Planning

Evaluate the Risks

The first step in evaluating whether a spill is "simple" is to estimate the risks created by the spill. In spill response, the key risks of concern are human health effects, property damage, and environmental damage.

When evaluating potential impacts, a prompt response can minimize adverse consequences. On the other hand, an inappropriate response can turn a simple spill into a complex situation.

Human Health Effects

Potential health effects is the most important hazard category to consider when deciding whether or not to attempt a spill cleanup. Some hazardous material releases may result in health hazards such as fires or explosions. Other hazardous material releases may present health threats because of their ability to spread rapidly and enter the body readily. A spill is not "simple" if it presents these risks.

If the potential for fire or explosion exists, seek outside assistance from trained emergency responders. Releases of flammable hazardous materials (liquid or solid) can present significant fire and explosion risks when one or more of the following is present:

- volatile vapors,
- water reactive or air reactive hazardous materials,
- ignition sources,
- oxidizers, and
- significant quantities of combustible materials.

Toxic vapors and dust are also hazardous. Avoid direct contact with such hazards because they spread quickly, are easily absorbed through the skin, and may damage tissue.

A hazardous material spill is not a health risk if it has a low toxicity (especially if it is not volatile or a dust), is not highly corrosive, and is not a strong oxidizer. Such spills may be considered "simple" only if physical damage or environmental factors are absent. When a spilled chemical's toxicity is unknown, treat the spill like a potential human health hazard by avoiding exposure and seeking outside assistance.

Appendix B, Discussion of Spill Response (continued)

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Physical Damage to Property

The potential for physical damage to property (Equipment, building materials, structures, or cleanup materials) also is important when determining whether you have a simple spill. Remember a common first response to a spill is to try to protect equipment and property, but any real threat to such items will also threaten the persons cleaning up the spill. Do not attempt to protect property if there are any human health or fire/explosion hazards present.

In addition to potential fire and explosion hazards, strong corrosives and oxidizers typically fall under the property damage category. If any hazards are present that would damage property, treat the spill as complex and contact the appropriate authorities.

Environmental Threats

Some laboratory spills have the potential for escaping into the environment. Spills may release into the atmosphere, discharge into the sewer system, or leak directly into soils or surface water. While few laboratory spills present environmental threats, it is necessary to notify the appropriate authorities if a spill has the potential to cause environmental damage. If you can do so safely, it may be prudent to take interim measures before the hazardous materials response team arrives, such as blocking a Spreading spill with absorbents or covering a floor drain with a rubber mat.

Though small amounts of some hazardous materials pose environmental problems, most environmental risks are presented by large-quantity releases of materials. A large-quantity release that threatens the environment is not a simple spill, but requires the attention of trained responders.

Evaluate Quantities

The next step to take when determining whether a spill is "simple" is to evaluate the quantity of material released. If a spilled hazardous material is not hazardous, its cleanup (without the assistance of an emergency response team) is dependent on the ability to control the spill, as well as the availability of sufficient spill control materials (e.g., an absorbent for liquids). Factors that may complicate a cleanup effort (such as the unique characteristics of a spill's surroundings or the restricted access to a spill) must be determined on a case-by-case basis.

If the spilled hazardous material is hazardous, the threshold quantity for a simple spill cleanup depends on the spilled chemical's physical properties and hazards. This quantity depends on situational factors such as

1. the training and experience of laboratory personnel,
2. the availability of spill control materials,
3. the availability of personal protective equipment, and
4. the physical layout of the spill location.

The more toxic, corrosive, or flammable a material is, the less likely that the spill can be defined as "simple". Thresholds for flammable liquids and solids, as well as volatile toxics, should be relatively low.

Appendix B, Discussion of Spill Response (continued)

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Spills of reactive hazardous materials should only be managed by trained responders (who may be in-house). In general, simple spill thresholds for liquids will be lower than the thresholds for solids. Additionally, simple spill thresholds for volatiles will be lower than the thresholds for non-volatiles.

Evaluate Potential Impacts

The third step to take when deciding whether a spill can be managed as a simple spill is to evaluate the potential broader impacts of the spill. A hazardous material spill in an area where its potential risks are magnified by specific situations (such as physical situations or the presence of a large number of people) should not be managed as a simple spill. For instance, the presence of boxes, hazardous materials, and other ignition sources would magnify the impact of a one-gallon release of acetone. Since acetone is highly flammable and volatile, this situation would be immediately dangerous to both human health and property, cleanup should be handled by and emergency responder.

Other factors that may magnify a spill's impact and require emergency response are

- the possibility that hazardous vapors or dusts might enter the building's ventilation system (and be distributed to other areas);
- the possibility that spilled liquids might flow into other areas, this expanding the threat of harm (such as reaching ignition sources, exposing other people, damaging delicate equipment);
- the presence of incompatible hazardous materials;
- the proximity of classrooms or offices containing people who could be harmed by the spill's consequences; and
- spills in sinks that might be connected to other sinks through the plumbing system.

To determine whether a spill is simple or complex (which is often the hardest part of spill response), you need to know (1) the hazard(s) posed by the spilled hazardous material and d(2) the spill's potential impact. Both these factors are, in large part, determined by the spill's size. The following information will help you determine whether you have a simple spill:

- the type of chemical(s) spilled,
- the amount,
- the hazardous characteristics of the spilled chemical(s),
- the location,
- the proper method for cleaning up the spill,
- the personal protective equipment available, and
- the training of the laboratory's personnel.

Training and Authorization for Spill Response:

To remediate a simple spill, a worker must have all required site-specific training for the work location and work activity and be authorized under the IWD governing the work which produced the spill.

Appendix B, Discussion of Spill Response (continued)

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Spill Response Steps and Discussion:

The steps to follow in spill response are located in section 8 of this procedure. The following additional information is provided.

More Detail: SOLIDS & LIQUIDS

Make a decision on whether to evacuate immediate area of the spill. If the spill is outside your lab fume hood or other containment and ventilated areas, evacuation of the lab will often be necessary. If you are unsure about the need for lab evacuation, get out. For spills of solids or liquids, it will often not be necessary to evacuate other areas, since labs with hazardous materials are normally under negative pressure with respect to the surrounding areas. Take note of the identity and quantity of the spilled material upon leaving your lab.

Determine the need for evacuation of additional areas. If you are using a highly hazardous material and have reason to believe it can enter the hallway, please do not hesitate to pull a fire alarm if you feel the need for building-wide evacuation. If only lab evacuation is necessary, post a sign, or better yet a person, outside each lab entrance to assure others do not enter.

When you contact your RLM and Operations Manager, you should do it from a safe location. Unless you have persons to help you secure the lab, it is best to phone from a location where you can see the lab entrance to keep people away.

Cleanup A Simple Spill

Spills are a reasonable "what-if" hazard that should always be considered when developing IWDs and local procedures. Any non-routine controls should be established in these documents to allow involved workers to respond to simple spills in a pre-planned way that authorizes them to respond to simple spills and equips them with the equipment and materials needed to do so. If the spill presents hazards beyond those in the IWD or local procedure – then the involved worker, the First Line Manager, ESH and the Operations Manager should agree on a spill response. Involved workers must have the right personal protective equipment and exposure monitoring:

- including, at a minimum, appropriate eye protection, protective gloves, and a lab coat.
- additional protective equipment may be required for spills that present special hazards (such as corrosive or reactive spills or spills that have a splash potential).
- as a rule of thumb, if you need a respirator, you should request outside assistance because you do not have a simple spill unless specific planning is included in approved work control documents to address this case.

The following steps should be taken during simple spill cleanup. Most importantly, before cleaning up a simple spill, be sure that you can do so safely.

Appendix B, Discussion of Spill Response (continued)

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Prevent the spread of dusts and vapors

If the substance is volatile or can produce airborne dusts, close the laboratory door and, where possible, the facility Operations Manager can increase ventilation (through fume hoods, for example) to prevent the spread of dust and vapors to other areas. **Neutralize acids and bases, if possible.**

Spills of most liquid acids or bases, once neutralized, can be mopped up and rinsed down the drain (to the sanitary sewer). However, be careful because the neutralization process is often vigorous, causing splashes and yielding large amounts of heat. Neutralize acids with soda ash or sodium bicarbonate. Bases can be neutralized with citric acid or ascorbic acid. Use pH paper to determine when acid or base spills have been neutralized.

Control the spread of the liquid

Contain the spill. Make a dike around the outside edges of the spill. Use absorbent materials such as vermiculite, cat litter, or spill pillows.

Absorb the liquid

Add absorbents to the spill working from the spill's outer edges toward the center. Absorbent materials, such as cat litter or vermiculite, are relatively inexpensive and work well, although they are messy. Spill pillows are not as messy as other absorbents, but they are more expensive. Note that special absorbents are required for hazardous materials such as hydrofluoric and concentrated sulfuric acids.

Collect and contain the cleanup residues

The neutralized spill residue or the absorbent should be scooped, swept, or otherwise placed into a plastic bucket or other container. For dry powders or liquids absorbed to dryness, double bag the residue using plastic bags. Additional packaging may be required before the wastes can be transported from your laboratory. For spills of powders or solid materials, you may need to add a dust suppressant. Be sure to place descriptive labels on each container.

Dispose of the wastes

Keep cleanup materials separate from normal trash. Contact your environmental health and safety officer for guidance in packaging and labeling cleanup residues. Promptly place cleanup wastes in an appropriate hazardous waste receptacle.

Decontaminate the area and affected equipment

Ventilating the spill area may be necessary. Open windows or use a fan unless the area is under negative pressure. In some instances, your environmental health and safety officer can test the air to ensure that hazardous vapors are gone. For most spills, conventional cleaning products, applied with a mop or sponge, will provide adequate decontamination. If you have any question about the suitability of a decontaminating agent, seek expert advice.

Appendix B, Discussion of Spill Response (continued)

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Special Precautions

The following precautions apply to hazardous materials that have hazardous characteristics. Note that some hazardous materials may exhibit more than one characteristic.

Spill Mitigation for Nano Materials:

- Contact the Emergency Operations at 7-6211 in the event of a large spill (i.e., a spill that cannot be safely contained by the engineered nanoparticle worker).
- Contact the Sanitary Waste Water System office at 7-7711 if nanoparticle spills occur down sanitary drains.
- Engineered nanoparticle workers will determine the extent of the area affected, and demarcate it with barricade tape or use another reliable means to restrict entry into the area.
- Allow trained personnel to clean up smaller spills, following the approved cleanup procedures listed in the IWD.
- Refer personnel exposed to nanoparticles in the course of a spill to Occupational Medicine.
- Manage all debris and waste resulting from the cleanup of a spill as though it contains engineered nanoparticles.

Flammable Liquids

Remove all potential sources of ignition. Vapors are what actually burn, and they tend to accumulate near the ground.

Flammable liquids are best removed through the use of spill pillows or pads. Spill pads backed with a vapor barrier are available from most safety supply companies. Because flammable liquids will probably be incinerated, avoid using inert absorbents such as cat litter. All used absorbent materials should be placed in heavy-duty poly bags, which are then sealed, labeled, and disposed through your facility's hazardous waste management program. Before resuming work, make sure the spill area has been adequately ventilated to remove flammable vapors.

Volatile Toxic Compounds

Use appropriate absorbent material to control the extent of the spill. Spill pillows or similar absorbent material usually work best because they do not have the dust associated with cat litter, vermiculite, or corn cobs. Place all used absorbent materials in heavy-duty poly bags. Seal the bags, label them, and hand them over to your facility's hazardous waste management program. Again, make sure the spill area has been adequately ventilated before resuming work.

Direct Contact Hazards

Carefully select suitable personal protective equipment. Make sure all skin surfaces are covered and that the gloves you use protect against the hazards posed by the spilled chemical. Often it is a good idea to wear two sets of gloves: one as the primary barrier, the second as a thin inner liner in

Appendix B, Discussion of Spill Response (continued)

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the event the primary barrier fails. When the cleanup is completed, be sure to wash hands and other potentially affected skin surfaces.

Mercury Spills

Mercury spills rarely present an imminent hazard unless the spill occurs in an area with extremely poor ventilation. The main exposure route of mercury is via vapor inhalation. Consequently, if metallic mercury is not cleaned up adequately, the tiny droplets remaining in surface cracks and crevices may yield toxic vapors for years.

When a mercury spill occurs, first cordon off the spill area to prevent people from inadvertently tracking the contamination over a much larger area. Generally, a special mercury vacuum cleaner provides the best method of mercury spill cleanup. DO NOT use a regular vacuum cleaner because you will only disperse toxic vapors into the air and contaminate your vacuum cleaner. If a special mercury vacuum is not available, first use an appropriate suction device to collect the big droplets, then use a special absorbent (available from most laboratory supply vendors) to amalgamate smaller mercury droplets.

Ideally, mercury spills should be prevented in the first place. Examine all uses of mercury to see if substitutes are available. If substitutes are not available, use trays or other equipment to provide spill containment. Spilled mercury often accumulates in sink traps. Be prepared to contain the mercury when servicing such facilities.

THINGS TO REMEMBER

Don't walk through the spill.

Don't dilute the spill or disturb it in other ways without first diking around the perimeter of the spill with pillows or other spill absorbent materials.

If a spilled material has contacted any part of your body, start first aid measures immediately. Shout for help and move directly to the nearest eyewash or shower. Disrobe promptly if clothing is involved. Flush for a minimum of 15 minutes whether eyes or skin are involved. Other persons should assist (you will need help with eye flushing) and should contact 911 at the earliest possible time to obtain additional assistance and further treatment.

Decontamination

Decontamination is the process of physically removing or neutralizing contaminants that have accumulated on personnel and equipment; the last step of spill cleanup.

Appendix B, Discussion of Spill Response (continued)

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Evaluate the following. Are they contaminated?

- All cleanup supplies and equipment (brooms, dustpans, shovels, containers, pipettes, suction tubes, sponges, vacuum cleaners, monitoring equipment, etc.)
- Personal protective equipment (hazardous material suits, respirators, gloves, boots, aprons, etc.)
- Any additional equipment in the area may have been contaminated during the spill or release, but may not be obvious. Examples might include analytical and/or computer equipment (particularly for releases of dusts), glassware, bench tops, etc.
- The probability and extent of permeation is directly linked to the length of contact. The longer the contact, the more effort that will be required to decontaminate.
- Loose contaminants such as dust or vapors may be removed by scrubbing, washing, and rinsing.
- Adhering contaminants such as resins and muds may require physical removal by brushing and wiping.
- The effectiveness of this removal may be improved by solidifying, freezing, and absorption procedures.

Appendix C, Recommended Components of a Laboratory Hazardous Material Spill Kit

Instructions:

- PICs shall prepare and maintain spill kits appropriate for the activity. ESH/WS staff shall prepare and maintain spill kits appropriate for the facility and to address major potential spill hazards in the facility.
- The following is a sample of a spill kit inventory checklist.

Item	Requirement	Inventory Checked by Initials and Date
Kit Basic Requirements	• Tool Kit. Bucket etc. to hold necessary materials. • Kit should be stationed in accessible locations that are visible • Kit should be inventoried routinely and secured by a tamper indicating device to prevent pilfering of materials	
Barrier Materials	• Safety rope – 100' • Safety tapes / ribbon 100' • Warning signs – 5 • Tape - roll	
Absorbents	• Paper towels (two rolls) • Pillows and brooms • Sheets and pads • Loose bulk absorbents (e.g., cat litter)	
Residue Management	• Whisk broom or hand-held brush • Plastic dust pan • Metal dust pan • Large, sealable (e.g., Ziploc) plastic bags • 5-gallon plastic drum liners • 5-gallon waste disposal container with lid	

Personal Protective Equipment (PPE)	• Hazardous material splash goggles
	• Face shields
	• Gloves (proper elastomer for the material in the lab)
	• Appropriate body protection, such as
	  o Lab coat
	  o Elastomeric aprons
	  o Tyvek suits
	  o Shoe/foot coverings	

Emergency Equipment (should be close at hand and documented in the IWD)	• Respiratory Protection (if applicable) • Neutralizers (citric acid, sodium bicarbonate, etc.) • Special reactants (chelating agents, etc.) • Decontaminants and biostats (e.g., for blood-borne pathogen cleanup) • Specialized PPE • Mercury Spill Kit (unless it is known that there is no mercury in the laboratory)	

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STO Generator Waste Operations

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Approval Signatures

Approver Title, Organization			
Rob Bement, DSESH-STO	200362 (2)		3.11.14
Name	Z#	Signature	Date
Facility Operations Director, Organization			
Rick Alexander, STO-DO	114624		3-13-14
Name	Z#	Signature	Date
Responsible Manager, Organization			
Stephanie Griego, STO-DO	140832		3/13/14
Name	Z#	Signature	Date

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Ed Pitchkolan	199035		3/13/14
Name	Z#	Signature	Date

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1.0 INTRODUCTION

1.1 Purpose

This document defines the waste generator's responsibilities for the identification and management of waste within Science and Technology Facility Operations Division (STO)-supported facilities for the STO Facility Waste Certification Program (FWCP). The STO FWCP serves to protect the worker and to ensure the protection of the public and the environment as part of the Los Alamos National Laboratory (LANL) Environmental Management System (EMS).

Complying with the requirements in this document for chemical and radioactive waste assures compliance with the requirements in LANL Procedure P409, Waste Management; LANL Procedure P930-1, LANL Waste Acceptance Criteria (WAC); LANL institutional policies and procedures; Code of Federal Regulations (CFR) 40, Protection of Environment; Department of Energy (DOE) Orders; and LANL's "Green is Clean" program.

This document also addresses the criteria to be used for segregating LLW and "Green is Clean" waste in Radiological Controlled Areas (RCAs), controlled for surface or volume contamination.

1.2 Scope and Applicability

This procedure provides waste generators within STO-supported facilities with instructions for the characterization, management, and disposition of chemical and low-level radioactive waste (LLW). This procedure is part of the STO FWCP.

This procedure applies to all chemical and low-level radioactive (whether located in a RCA or not) waste and personnel performing waste operations within STO-supported facilities.

This document is divided into four instructions:

- Hazardous Waste
- Radioactive Waste
- Universal Waste
- Biological Waste

2.0 PRECAUTIONS AND LIMITATIONS

N/A

3.0 PREREQUISITE ACTIONS

N/A

4.0 ACCEPTANCE CRITERIA

N/A

5.0 WORK STEPS

This Instruction is a stand-alone sub-section and **may** be performed independently of, or in conjunction with, other Instruction sub-sections.

5.1 Requirements

NOTE *Failure to comply with all requirements in this document could result in serious disciplinary action.*

All hazardous waste **SHALL** be accumulated in a SAA or < 90 Day Area, properly labeled, and in closed containers. The LANL WAC is constantly changing but following the requirements in this document will assist in satisfying the requirements in the WAC. DSESH-STO Waste Management personnel keep up-to-date with WAC requirements, and will assist in complying with these requirements.

STO supports research and development organizations with a wide diversity of research operations and waste streams. It is difficult to provide specific guidance in this document for every possible waste stream. Most hazardous wastes generated are aqueous, solvents, metal powders, and laboratory trash contaminated with solvents and/or metals. Appendix 1, Hazardous Waste Disposal Process Flow Chart, illustrates the STO hazardous waste disposal process.

Notify waste management personnel of all anticipated waste streams and for assistance with waste determination and classification. If uncertain about the type of waste to be generated or being generated, immediately notify your WMC.

5.2 Waste with No Disposal Path

The only known non-radioactive waste stream with no disposal path at this time is:

- F027 waste containing chlorophenols or their derivatives (unused/unspent dioxin waste e.g., silvex or 2,4,5-trichlorophenol).

This waste stream is not to be generated. Special DOE approval is required before generating this waste stream. If you **MUST** generate this waste stream, contact your WMC for assistance.

Problematic Waste is waste that for some other reason cannot be accepted by the intended TSDF within one year of acceptance into storage or will be extremely expensive to ship, treat, and/or dispose.

5.3 Waste Handling Precautions

Individuals using and/or handling chemicals **MUST** know the chemicals used in each operation and the products of any reactions. Compliance with the LANL Chemical Safety Program requirements for handling the chemicals is required. Contact the DSESH-STO Industrial Hygiene and Safety (IHS) representative for assistance.

5.4 Generator Authorization

Only authorized SAA users are allowed to generate and store hazardous waste. Short-term visitors **may** generate waste but their sponsor is responsible for the waste. In order to become an authorized user, waste generators **MUST** complete the applicable training requirements, at a minimum Waste Generation Overview (WGO) Live training course number 23263 followed by WGO Refresher course number 21464 every three years and be assigned curriculum number 2810, Hazardous Waste Generator, in UTrain.

A list of all Authorized Users **MUST** be posted at every SAA within a STO-supported facility and reviewed and/or updated at least annually. Contact a WMC when waste is generated by an individual not on the SAA authorized user list.

5.5 Approved Users

Each SAA within a STO-supported facility has a custodian who has oversight of the SAA to help with ensuring that waste generators maintain the storage requirements for that SAA. The SAA custodian must post an Authorized Users list and keep it up-to-date.

When the WMC supplies an Authorized Users list for the SAA custodian, all Authorized Users are also Approved Users for each SAA unless the SAA custodian indicates otherwise. Custodians approve only specific users for their SAA by:

- Supplying an Authorized User List or
- Highlighting the authorized user's names on the WMC provided authorized user list in the SAA including themselves

Contact your WMC to get a non-authorized worker on the authorized/approved user list for a SAA.

5.6 Waste Minimization

Waste generators are required to make every effort to reduce the amount of hazardous waste generated as much as is technically and economically feasible. Waste can be minimized through the following methods:

- Material substitution
- Reducing waste at the source
- Surplus chemicals in ChemLog
- Good housekeeping
- Segregating non-hazardous materials
- Recycle
- Salvage
- Maximizing the packing efficiency of waste containers
- Decontaminating when appropriate
- Using disposal as the final option

Waste minimization practices are to be incorporated into waste-generating activities and included in procedures. Waste management **should** review documents (e.g., Integrated Work Documents and procedures) that generate a waste to provide waste minimization assistance.

5.7 Hazardous Waste Determination

Each waste stream **MUST** be classified before or at the time of generation in order to ensure that the waste is managed and disposed of properly. Your WMC can be contacted to obtain a waste classification and for assistance with completing a Waste Profile Form (WPF).

IF a material is determined to satisfy one of the following criteria,

- Cannot be reused
- Cannot be used for its intended purpose
- Has exceeded its shelf life
- Has no known owner or generator
- Is no longer wanted or needed
- Is an end product of a process or experiment that cannot be used as feedstock in an existing process

THEN the material is **WASTE**.

A waste stream is not allowed to be altered in any manner that could be considered treatment. RCRA does allow some treatment such as elementary neutralization or treatability studies but Water Quality And RCRA Group requires documentation prior to such treatment. Contact your WMC for assistance with waste treatment.

Examples of **illegal** waste treatment:

- Leaving solvent wetted wipes in a hood or on the bench top to air dry.
- Leaving a container open to allow the waste to evaporate.
- Pouring an unapproved waste into a drain.
- Diluting a waste to render it non-hazardous.
- Venting a pressurized aerosol can solely to remove the propellant.

5.7.1 Solvents

Most organic solvents and alcohols have a flash point of less than 140 °F, which means they are a hazardous waste while they are in liquid form. F-listed RCRA solvents are listed for two characteristics: toxicity and ignitability.

F001, F002, F004, and F005 solvents are listed for toxicity, which means they and anything they come in contact with, are always a hazardous waste. Wipes/rags used with these solvents **SHALL** be collected as a hazardous waste even if the wipes/rags dry during the process. The solvents are:

Tetrachloroethylene	1,1,2-Trichloro-1,2,2-trifluoroethane	Toluene
Trichloroethylene	Ortho-dichlorobenzene	Methyl ethyl ketone
Methylene chloride	Trichlorofluoromethane	Carbon disulfide
1,1,1-Trichloroethane	1,1,2-Trichloroethane	Isobutanol
Carbon tetrachloride	Cresols	Pyridine

5.7.1 Solvents (cont.)

Chlorinated fluorocarbons	Cresylic acid	Benzene
Chlorobenzene	Nitrobenzene	2-Ethoxyethanol
2-Nitropropane		

F003 solvents are listed solely for ignitability, which means that wipes/rags that are still soaked with the solvents **SHALL** be collected as a hazardous waste. Wipes/rags that dry during the process **may** be thrown into the trash. This includes other ignitable solvents not listed such as ethanol, isopropanol, propanol, kerosene, etc. The F003 solvents are:

Xylene	Ethyl benzene	n-Butyl alcohol
Acetone	Ethyl ether	Cyclohexanone
Ethyl acetate	Methyl isobutyl ketone	Methanol

Contact your WMC for further guidance on solvents and alcohols.

5.7.2 Ignitable Waste

Other types of waste that satisfy the ignitability characteristic and are a hazardous waste are:

- Liquids with a flash point of less than 140 °F
- Ignitable non-liquids: such as powders of metal and non-metal materials including aluminum, boron, bronze, cadmium, carbon, copper, chromium, hydrides, iron, manganese, rhenium, silicon, silver, stainless steel, tantalum, tin, titanium, titanium boride, titanium diboride, tungsten, zirconium, zirconium carbide, zinc
- Ignitable compressed gas: this includes some aerosol cans that still contain propellant and nonreturnable compressed gas cylinders
- Department of Transportation (DOT) oxidizers: chromium trioxide, hydrogen peroxide, lead oxide, magnesium peroxide, manganese dioxide, all nitrates

Contact your WMC for further guidance on powders and oxidizers.

5.7.3 Corrosive Water

Many acids and bases satisfy the corrosivity characteristic even when they are dilute.

A corrosive hazardous waste exists when:

- The pH is less than or equal to 2
- The pH is greater than or equal to 12.5
- A liquid that corrodes steel at a specific rate as defined in 40 CFR Part 261.22(a)(2)

Contact your WMC for further guidance on corrosive waste.

5.7.4 Reactive Waste

RCRA has a specific definition for reactive waste. A reactive waste exists when the material:

- Is normally unstable and readily undergoes violent change without detonating
- Reacts violently with water
- Forms potentially explosive mixtures with water
- Is cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or the environment
- Is pyrophoric (spontaneously ignites in air)
- Is shock sensitive
- Is an explosive

The EPA does not provide analytical methods for reactive waste therefore reactivity must be determined by the manufacturer and/or the waste generator. Contact your WMC for further guidance on reactive waste.

5.7.5 Toxic Waste

RCRA has 40 metals and chemicals listed for toxicity. If any of these materials contaminate the waste stream at a level greater than or equal to a few Parts Per Million (ppm) (indicated in parentheses) as determined through AK or the toxicity characteristic leaching procedure, then the waste stream is a hazardous waste. The most common of these materials used in STO-supported facilities are:

- Metals: arsenic (5.0), barium (100.0), cadmium (1.0), chromium (5.0), lead (5.0), mercury (0.2), selenium (1.0), silver (5.0)
- Chemicals: benzene (0.5), chloroform (6.0), cresol (200.0), methyl ethyl ketone (200.0), nitrobenzene (2.0), pyridine (5.0), trichloroethylene (0.5)

Fluorescent lamps contain 10 to 40 milligrams of mercury, and incandescent bulbs have a lead solder joint and a lead contact point, therefore they **MUST** be managed as a Universal Waste (see Instruction 7 of this document). If these types of lamps or bulbs are contaminated with radioactive material or chemicals (e.g., beryllium) that do not allow them to be recycled, then they **MUST** be managed and disposed of as a Hazardous Waste. Contact your WMC for further guidance on toxicity characteristic waste and for assistance with waste lamps and bulbs.

5.7.6 Electroplating Waste

There is one electroplating shop in STO-supported facilities, Sigma (TA-03-0066). In electroplating operations, a hazardous waste exists for any waste stream that satisfies one of the following F-listed waste streams:

- Wastewater treatment sludges from electroplating operations; because of this F-listed waste, **NO** electroplating waste (including rinse water) can be sent to the Radioactive Liquid Waste Treatment Facility (RLWTF)
- Spent cyanide plating bath solutions from electroplating operations
- Plating bath residues from the bottom of plating baths associated with electroplating operations where cyanides are used in the process
- Spent stripping and cleaning bath solutions associated with electroplating operations where cyanides are used in the process

Note *The F listings only apply to electroplating waste streams. It does not apply to electroless plating or nonelectroplating cleaning baths even though they are in an electrochemistry laboratory. Contact your WMC for assistance in determining if the F-codes apply to the waste and whether or not RLWTF acceptance is a possibility.*

5.7.7 Unused/Unspent Chemicals

RCRA has two classifications for specific unused/unspent chemicals that are hazardous wastes when they are discarded; these two classifications are U-list and P-list. Other discarded chemicals **may** be regulated under RCRA if they exhibit a characteristic. For unused/unspent (opened or sealed) chemicals that are no longer needed, attempt to find another home for the chemical. As a last option, contact your WMC for disposal of the unused/unspent chemicals.

Acute hazardous waste (P-list) exists when the unused/unspent chemical or the empty container that contained the P-listed material is discarded. The empty containers **SHALL** be managed as a hazardous waste. The most common of these materials used in STO-supported facilities are:

- Beryllium metal powder
- Cyanides
- Thallium oxide
- Vanadium pentoxide

Contact your WMC for further guidance on unused/unspent chemical waste.

5.7.8 Orphan Waste

No waste is to be left behind when moving out of a STO-supported facility. STO requires the Workspace Inspection Form 1669 be completed when moving out of a STO-supported facility. Complete the form at least two weeks in advance of moving out of a STO-supported facility.

IF an unknown/orphan waste is discovered, **THEN:**

- Do not open the container
- Do not move the container if it could potentially be shock sensitive
- Immediately contact your WMC who will assist with the handling of the orphan waste:
  - Store the waste in a SAA or <90 Day Area
  - Physically segregate it from other waste
  - Have it analyzed and keep a copy of the Request For Analysis form with the container
  - Dispose of the orphan waste

The full characterization analysis of orphan waste will cost a minimum of $1,500.

5.8 Characterization

The following are types of characterization used in STO-supported facilities:

- Acceptable Knowledge (AK): The Integrated Work Documents (IWDs), logbooks, and other work documents serve as AK documentation. Give the identifying number to your WMC when completing a WPF. If the waste is generated from a non-specific process with no documentation, your WMC will assist in writing the AK in the "Additional Information" section of the WPF.
- Chemical/Physical Analysis: When analysis is required, your WMC submits a "Request for Analysis" and will assist with the WPF when the results are received. The waste is to be labeled and properly managed until the results of the analysis are known.
- Material Safety Data Sheet (MSDS): MSDSs are almost always used because the information provided for contents and characteristics are necessary for completing the WPF and making a waste classification.

NOTE *Residues from treatability study experiments **MUST** be characterized by chemical/physical analysis.*

Your WMC **MUST** be notified of any changes that affect the characterization of a waste stream. Submit a STO Service Request when analysis of a waste stream is needed, and provide all the information requested on the Service Request, including the cost account information for costs associated with the analysis. A pdf file of the chemical/physical analysis results **MUST** be attached to the WPF in WCATS when it is submitted. The only MSDSs that must be attached to WPFs are those for trade name materials (e.g., WD-40).

5.8.1 Waste Profile Form (WPF)

The WPF serves as the characterization documentation for a waste stream. Contact your WMC for assistance in completing a WPF. The individual completing a WPF is responsible for ensuring that:

- The information on the WPF is accurate and best describes the waste stream
- Each waste stream is on a separate WPF

NOTE *Classified waste is not exempt from these requirements and requires a WPF. Do not put classified information in the WPF.*

Each WPF is active for one year. An email will be sent to the WPF owner from WCATS notifying the owner that the WPF **MUST** be reviewed to determine whether the WPF still satisfies the waste stream. If the WPF is still applicable, the owner extends the WPF for a year through WCATS.

5.8.2 Empty Containers

Containers less than or equal to 110 gallons in size are considered empty if the following requirements are satisfied:

- All of the material has been removed that can be removed using the practices commonly employed to remove the material from that type of container (e.g. pouring or pumping)
- No more than one inch of residue remains in a drum or no more than three percent by weight of the total capacity remains in the container

NOTE *Empty nonreturnable compressed gas cylinders (except those that contained a P-listed material) can be sent to metals recycle when the cylinder has been punctured, had the valve removed, or had a wire placed through the open valve.*

Empty containers less than 30 gallons in size can be disposed of as municipal refuse waste (in the trash) unless they contained a P-listed material as discussed previously in Section 5.7.7. Aerosol cans must be empty of both the liquid and propellant but cannot be thrown in the trash. An empty container 30 gallon in size or greater **MUST** have an MSDS for the material it contained for disposal.

Contact your WMC for assistance in disposing of empty containers that are greater than or equal to 30 gallons and empty aerosol cans.

5.9 Storage

All hazardous and mixed waste **MUST** be accumulated and/or stored in a Hazardous Waste Satellite Accumulation Area (SAA) or a Hazardous Waste Less Than 90 Day Storage Area (< 90 Day Area). Always keep the SAA or < 90 Day Area free of obstacles or deterioration that could cause a spill, accident, or prevent access by emergency personnel and equipment.

For a large volume (55 gallons or greater) generation of hazardous waste that cannot be stored in a SAA, immediately contact your WMC.

NOTE *Non-hazardous waste is not required to be stored in a SAA or < 90 Day Area.*

LANL requirements allow the storage of flammable materials without fire protection (e.g., cabinet or fire safe can) up to 5 gallons per 100 square feet of floor space. If a generation will exceed this limit a fire safe cabinet or other means of fire protection for the SAA is required. Also, Appendix 2, NFPA Flammable Material Volume Limits, is the National Fire Protection Agency (NFPA) flammable material volume limits for different container types.

5.9.1 Segregation

Waste streams **SHALL** be segregated. Keep:

- Liquids and solids in separate containers
- Hazardous and non-hazardous waste in separate containers
- Hazardous and radioactive waste in separate containers

Hazardous waste **MUST** be physically segregated (e.g., separate spill trays or cabinets) from the following while in storage:

- Non-hazardous waste
- Incompatible waste
- Mixed waste
- Radioactive waste
- Product chemicals

DSESH-STO waste management **may** have some containers and spill trays available for waste. Contact your WMC for further guidance on segregation.

5.9.2 Compatibility

Hazardous waste streams **MUST** be compatible with the:

- Container
- Spill containment
- Other waste in the same spill containment

Take every precaution to ensure incompatible materials (such as oxidizing acid and organic solvents or cyanides and acids) CANNOT be placed in the same waste container.

Contact your WMC or DSESH-STO IHS representative for further guidance on compatibility.

NOTE ***NEVER*** *shall reactive cyanides and acids be stored or packaged together.*

5.9.3 Containers

NOTE *EPA explained that the purpose of the closed container requirement is "to minimize emissions of volatile wastes, to help protect ignitable or reactive wastes from sources of ignition or reaction, to help prevent spills, and to reduce the potential for mixing of incompatible wastes and direct contact of facility personnel with waste."*

Outer hazardous waste containers **MUST** be:

- Sealed/closed to the EPA's intent
  - the only time a hazardous waste container can be open is when waste is actively being put into the waste container
- Compatible with the waste
- In good condition
  - immediately replace deteriorated or damaged containers

Examples of <u>noncompliant open containers</u>:

- Step-on cans that do not close properly
- Zip lock bags <u>not</u> completely sealed
- Wipe caught in the seal of a zip lock bag
- Lid completely off the container
- Lid loose on the container
- Wrong lid on a container
- Container leaks from the lid when sealed properly
- Funnel type lids that do not seal/close to meet the EPA's intent
- Cracked container
- Tear or a pinhole in a bag

DSESH-STO waste management can assist with the purchase of DOT rated shipping containers and **may** have containers available. Contact your WMC for further assistance with containers.

5.9.4 Hazardous Waste Satellite Accumulation Area (SAA)

A SAA is allowed to accumulate up to 55 gallons of hazardous waste or one quart of acutely hazardous waste. The SAA **MUST** be located as close to the point of generation as possible. A SAA **may** not serve waste generators on different floors unless approved by the Water Quality And RCRA Group.

To use an existing SAA, contact the SAA custodian listed on the posting and ask permission to accumulate/store waste in the SAA. Ensure your name is on the Authorized Users list.

To establish a new SAA, contact your WMC who will:

- Review the site
- Complete the applicable LANL registration
- Post the appropriate signage
- Provide labels
- Determine whether a secondary containment is needed (secondary containment **MUST** hold 110% of the volume of the largest container)
- Check the area for possible ignition sources
- Ensure that the egress is not blocked
- Ensure that segregation of incompatible wastes is possible
- Ensure the acceptable storage for flammable waste
- Brief the SAA custodian and generators on the postings and requirements for the SAA

Once a SAA has been established, do not move the SAA without first contacting your WMC. If a SAA or the postings need to be moved, contact your WMC for assistance.

5.9.5 SAA Volume Limit Exceeded

IF the volume limit in a SAA is exceeded, **THEN:**

- Date each container that causes the volume limit to be exceeded
- Remove the waste within three calendar days

Immediately contact your WMC to move the waste to a < 90 Day Area or TSDF.

5.9.6 Daily Accumulation

While accumulating waste during the work day, the requirements of this document **MUST** be satisfied. Waste **MUST** be collected in a closed and labeled container.

The only time a container is allowed to be open is when waste is being physically added to the container. The best way to satisfy the requirements for laboratory trash (e.g., wipes and gloves) is to use labeled wide mouth poly bottles on bench tops, in gloveboxes, and in hoods

5.9.7 Hazardous Waste <90 Day Storage Area (<90 Day Area)

All Hazardous Waste < 90 Day Storage Areas under the control of the waste generator must be reviewed and assessed by your WMC. All <90 Day Area workers must be assigned curriculum number 293, Less-Than-90-Day Storage Area Worker, in UTrain and maintain their RCRA Personnel Training course number 7488 or RCRA Refresher Self-Study number 28582 complete. It is a **RCRA violation** to work in a <90 Day Area unsupervised when this training is expired or incomplete.

< 90 Day Areas are limited by time, not by volume. Waste placed in < 90 Day Areas **MUST** be characterized and transferred to a TSDF within 90 calendar days. The 90 day period starts once waste accumulation begins in a container but a disposal request must be submitted by day 30. If waste is added to that same container at a later date, do not change the date.

In a < 90 Day Area, each container **MUST** be:

- Closed
- Labeled or clearly marked with the words “Hazardous Waste”
- Marked with the accumulation start date

The following items **MUST** be available in < 90 Day Areas:

- Copy of the most recent LANL Contingency Plan
- The < 90 Day Accumulation Area-Emergency and Site Specific Plan
- Spill control for the types of waste stored
- Personnel decontamination equipment (if the type of waste managed does not require decontamination equipment, a justification memo must be supplied by an industrial hygienist or safety professional)
- Fire emergency equipment
- Communication equipment (in < 90 Day Areas where a cellular phone is carried onsite to satisfy this requirement, never open the < 90 Day Area without the phone and a charged battery)
- Secondary containment for liquids

It is highly recommended to organize all of the documents and forms in a binder and place the binder in the < 90 Day Area and also to post a copy of the < 90 Day Accumulation Area-Emergency and Site Specific Plan.

5.9.8 Hazardous Waste <90 Day Storage Area (<90 Day Area) (cont.)

The following requirements **MUST** be satisfied for < 90 Day Areas:

- Test and maintain the spill control, decontamination, emergency, and communication equipment:
  - Inspect or test portable decontamination equipment weekly, and change the solution as required for the portable unit used
  - Maintain the spill control supplies and replenish, as necessary
  - Take care of the cellular phone and keep the battery charged
  - Maintenance of the fire emergency equipment is ensured by STO
- Do not handle, open, or store containers in a manner, which **may** cause them to rupture or leak
- Do not mix incompatible wastes and/or materials in the same container
- Do not place hazardous waste in an unwashed container that previously held an incompatible waste or material
- Maintain a minimum aisle space of two feet
- Inspect equipment and containers using the LANL Hazardous/Mixed Waste Facility Inspection Record Form For <90 (IRF) at least weekly and when there is waste activity
  - File the original IRFs in your waste management files

NOTE ***NEVER*** *shall reactive cyanides and acids be stored or packaged together.*

5.10 Labeling

Each outer container holding hazardous waste **MUST** be labeled with the appropriate labels or marked clearly as specified below:

- Labeled or clearly marked with the words "Hazardous Waste"
  - Do not use words such as used, dispose, no good, or waste
- Generator's name
  - Do not use initials
- Generator's telephone number
- Waste Profile Form (WPF) or Waste Stream Identification (WSID) number
- Major hazardous constituents
  - Spell out the name of each chemical that causes the waste to be a hazardous waste
- For waste contaminated with beryllium "Danger Contaminated With/Contains Beryllium"
- For a mixed waste "Caution Radioactive Material – Radioactive Waste" or "Caution Radioactive Waste"
  - If the waste is a mixed waste, then ensure that the requirements of Section 6, Instructions-Low Level Radioactive Waste, are also followed.

NOTE *Do not date any hazardous waste containers in a SAA when the volume limit has not been exceeded. The date would falsely indicate that the volume limit has been exceeded.*

5.10 Labeling (cont.)

Ensure that all written information is legible. If necessary, cover the label with clear packing tape to protect the ink. Signs of waste spillage can lead to a RCRA violation. For used chemicals, such as a solvent, that is not a waste because it can be reused, mark the container with the words "For Reuse." Do not mark the container "used" as this indicates it is a waste.

DSESH-STO waste management supplies the appropriate labels for use in SAAs. Appendix 3, Hazardous Waste Labels, illustrates the two labels supplied by waste management for hazardous waste. Contact your WMC for labels.

5.11 Controls

NOTE *SAAs where the administrative control requirements are not satisfied **MUST** be physically controlled. Using physical controls, the SAA **MUST** be locked when no waste generator is present. Outdoor SAAs and containers **MUST** be physically controlled.*

SAAs **MUST** be under the control of the operator using either physical or administrative controls. STO uses administrative controls and they are partially maintained by the DSESH-STO waste management organization. The following are required to satisfy the administrative control requirements:

- Post the SAA contact (custodian)
- Post the authorized users list
- Write the WPF or WSID number on the container
- Write the generator's name on the container

Contact your WMC for further assistance with administrative and physical controls.

The following are required to satisfy the control requirements of <90 Day Areas:

- Physically control all outdoor < 90 Day Areas
- Post the emergency contacts
  - It is highly recommended to post the site safety plan

5.12 Postings

SAAs **MUST** have the following postings:

- Sign with the words "Hazardous Waste Satellite Storage Area" or "Hazardous Waste Satellite Accumulation Area"
- SAA contact (SAA custodian)
- SAA site identification number
- Authorized users list
- Radiological postings as determined by DSESH-STO RP, Health Physics Operations, if there is mixed waste

< 90 Day Areas **MUST** have the following postings:

- Sign with the words "Hazardous Waste < 90 Day Storage Area" or "Hazardous Waste <90 Day Accumulation Area"
  - It is highly recommended to post the < 90 Day Accumulation Area-Emergency and Site Specific Plan
- Radiological postings as determined by DSESH-STO RP if storing a mixed waste

Postings **MUST** remain highly visible at all times. Postings are never to be covered, blocked, or removed without DSESH-STO waste management approval. Contact your WMC for assistance with postings.

5.13 Disposal

To dispose of hazardous waste:

- Ensure that the WPF accurately describes the waste stream
- Assign a cost string to the WPF in WCATS
- Complete the Waste Acceptance Form or the Waste Item Inventory form
- Submit a STO Service Request to the STO waste management organization
  - Provide all of the information requested on the STO Service Request including the cost account information for charging the disposal, packaging, and transportation costs

5.14 Nonconformance

Noncompliance with the requirements of this document **may** result in <u>not</u> satisfying the WAC for the destination TSDF. The TSDFs conduct Quality Assurance checks and if the waste does <u>not</u> satisfy the applicable WAC requirements, the originator will be issued a Nonconformance Report (NCR).

NCRs are issued for, but <u>not</u> limited to:

- Improperly characterized waste
- Improperly completed or missing forms
- Improperly segregated waste
- Improperly packaged waste
- Improperly labeled waste
- Failure to schedule a waste transfer before it arrives at the TSDF
- Failure to satisfy the WAC requirements

5.14 Nonconformance (cont.)

If a discrepancy with a waste is discovered at a TSDF, the TSDF will either accept the waste after remediation or return the waste to the originator. The originator is responsible for all costs associated with remediation. DSESH-STO waste management will assist the waste generator with the initiated corrective actions, remediation of the waste discrepancy, and response to the nonconformance report within 30 calendar days.

5.15 Forecasts

Waste generators are responsible for providing waste volume projections in a timely manner to each TSDF as requested. The volume projection **MUST** be updated during the year when a significant change in the volume is anticipated. The TSDF requesting the information should provide a questionnaire and allow 30 days for a response.

Contact your WMC for assistance with volume projections.

5.16 Leaks/Spills/Discharges

The STO On-Call Duty Officer at pager 664-4444 or 664-4491 **MUST** be immediately notified of any waste leaks, releases, spills, or unusual or accidental discharges through drains to a wastewater facility or outfall, or any accident or emergency situation. Also, you must contact your Operations Manger immediately during business hours.

All hazardous waste leaks, spills, releases, and discharges **MUST** be cleaned up immediately. The clean-up materials **MUST** be managed as a hazardous waste unless is it a characteristic waste and the characteristic no longer exists. Contact your WMC for assistance.

6.0 INSTRUCTIONS – LOW LEVEL RADIOACTIVE WASTE

This Instruction is a stand-alone sub-section and may be performed independently of, or in conjunction with, other Instruction sub-sections.

6.1 Requirements

All low-level radioactive waste (LLW) **SHALL** be accumulated in compactible LLW collection containers, LLW burial boxes, or in sealable containers within the area where the waste is generated. If a container is not full and sealed for disposal but must be moved from the accumulation area, move it to a Radioactive Waste Staging Area. Once a waste container is full and has been sealed for disposal, the container **MUST** be stored in a Radioactive Waste Staging Area or Radioactive Waste Storage Area. All outer waste containers **SHALL** be properly labeled while collecting or containing LLW. The LANL WAC is constantly changing but following the requirements in this document assist in satisfying the requirements in the WAC. DSESH-STO Waste Management personnel keep up-to-date on WAC requirements and will assist with satisfying the WAC requirements.

STO supports research and development organizations with a wide diversity of research operations and waste streams. It is difficult to provide specific guidance in this document for every possible waste stream. Most LLW generated is radioactive contaminated laboratory trash, equipment, oil, and radioactive material itself.

Notify DSESH-STO waste management personnel of all anticipated waste streams and for assistance with waste determination.

6.2 Waste With No Disposal Path

The only radioactive waste streams with no disposal path at this time are:

- Some non-defense transuranic waste
- Some non-defense mixed transuranic waste

Do not generate these waste streams if possible. Special DOE approval is required before generating these waste streams. If you **MUST** generate one of these waste streams, contact your WMC for assistance.

Problematic Waste is waste that for some other reason cannot be accepted by the intended TSDF within one year of acceptance into storage or will be extremely expensive to ship, treat, and/or dispose.

6.3 Radioactive Waste Management Basis (RWMB)

The RWMB identifies each area where radioactive waste is generated, what types of waste are generated there, what management activities are performed, and the TSDF proposed for final disposition of the waste.

The RWMB includes:

- Generating process owner identification
- Documents supplied to Waste Certification Program (WCP) to support the RWMB
- Waste Authorization Basis documents pertinent to the generating facility
- Types of waste management processes within the facility and their locations
- Waste matrix (solid or liquid)
- Waste categories generated: Low-Level Radioactive Waste (LLW), Mixed Low-Level Radioactive Waste (MLLW), Transuranic (TRU), Mixed Transuranic (MTRU),
- The destination for each waste stream
- The final destination for each waste stream (reported under "Life-Cycle Waste Management")
- The 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

Provide the information required for the RWMB every two years and when facility operations or waste status changes. Contact your WMC for assistance with RWMB information submittal.

6.4 Waste Handling Precautions

Individuals using or handling radioactive materials MUST know those materials used in each operation. Compliance with the LANL Radioactive Materials Safety Program requirements for handling the material is required. Take care when handling radioactive waste to prevent contamination. Contact the DSESH-STO IHS representative for assistance.

6.5 Employee Authorizations

Only authorized individuals are allowed to generate LLW in STO-supported facilities. In order to obtain employee authorization:

- Complete the applicable training requirements, at a minimum Waste Generation Overview (WGO) Live training course number 23263 followed by WGO Refresher course number 21464 every three years and be assigned curriculum number 2810, Hazardous Waste Generator, in UTrain
- Obtain Worker Authorization to perform activities which generate LLW from line management

6.6 Operation Authorization

Only authorized operations are allowed to generate LLW in STO-supported facilities.

In order to obtain operation authorization:

- Contact an ES&H representative when starting and/or modifying a radioactive material operation, generating or potentially generating any waste in a RCA, or generating LLW outside an RCA
- Assist the ES&H representative in completing all necessary paperwork, including an IWD
- Obtain Work Authorization for the operation from line management

6.7 Waste Minimization

Waste generators are required to make every effort to reduce the amount of LLW generated as much as is technically and economically feasible. Waste can be minimized through:

- Material substitution
- Reducing waste at the source
- Good housekeeping
- Segregating from hazardous materials
- Recycle
- Salvage
- Maximizing the packing efficiency of waste containers (LLW containers **MUST** be at least 90% full.)
- Decontaminating when appropriate
- Unwrapping equipment and supplies outside of the RCA
- Using chemicals which are not regulated as hazardous waste by RCRA whenever possible
- Having operations reviewed by an ES&H representative for minimization opportunities
- Using disposal as the final option

Incorporate waste minimization practices into waste-generating activities and include them in procedures. Have your DSESH-STO WMC review documents (e.g., IWD) to provide waste minimization assistance.

6.8 Green is Clean

NOTE *Suspect radioactive waste **MUST** be stored as radioactive until surveyed and released.*

In a RCA, which has an approved "Green is Clean" designation, determine whether the waste is clean waste, compactable LLW, or noncompactable LLW before or when the waste is generated. If clean waste, then:

- Segregate the clean waste generated by using acceptable knowledge (AK) or survey
- Immediately place the segregated clean waste in the clean waste for disposal container

6.8 Green is Clean (cont.)

The "Green is Clean" containers are located in the Clean Waste Collection Point and are green, have green lids, or clearly designated for clean waste.
Contact the area Radiological Control Technician (RCT) for surveys. Contact your WMC for assistance with "Green is Clean" waste.

6.9 Characterization

There are different types of characterization used in STO-supported facilities. They are:

- Acceptable Knowledge (AK): The IWD or lab notebook for each process serves as the AK documentation. Give the identifying number to your WMC when completing a WPF. If the waste is generated from a non-specific process with no documentation, the WMC will assist with writing the AK in the "Additional Information" section of the WPF. Waste destined for the Nevada National Security Site must have more extensive AK that must be uploaded into the WPF on WCATS.
  - For **"**Green is Clean", enough knowledge of the item's use and history **MUST** be possessed to accurately make a determination of the following requirements:
    - No spill or airborne release has occurred in the area since the most recent radiological survey
    - No direct contact between item and radioactive contamination has occurred
    - No tag or label that indicates radioactive or potentially radioactive contamination
    - Not connected to a contaminated or activated system
    - No potential for activation
    - Not used or located so that contamination is suspected
    - No other reason to suspect the item is contaminated

    If the any of these requirements are true or unknown, assume the item is LLW unless a survey of the item indicates that it is clean.

- Chemical/Physical Analysis: When analysis is required, your WMC submits a "Request for Analysis" and will assist with the WPF when results are received. Your WMC will also request gamma spec analysis or liquid scintillation analysis of waste to assist with the classification of the waste for shipment and disposal.
- Material Safety Data Sheet (MSDS): MSDSs are almost always used because the information provided for contents and characteristics are necessary for completing the WPF and making a waste classification.

Your WMC **MUST** be notified of any changes that affect the characterization of a waste stream. Submit a STO Service Request when analysis of a waste stream is

needed and provide all the information requested on the STO Service Request, including the cost account information for cots associated with the analysis.

6.9.1 Waste Profile Form (WPF)

Waste Profile Forms (WPFs) serve as the characterization documentation for each waste stream. The individual completing a WPF **MUST** know the waste stream and anticipate any changes. The individual completing a WPF is responsible for ensuring that:

- The information on the WPF is accurate and best describes the waste stream
- Each waste stream is on a separate WPF

NOTE *Classified waste is not exempt from these requirements and requires a WPF. Do not put classified information in the WPF.*

Each WPF is active for one year. An email will be sent to the WPF owner from WCATS notifying the owner that the WPF **MUST** be reviewed to determine whether the WPF still satisfies the waste stream. If the WPF is still applicable, the owner extends the WPF for a year through the database.

Contact your WMC for assistance in completing or extending a WPF.

6.9.2 Photographic Documentation

Photographing containers greater than 85 gallons in size in layers is highly recommended to verify that the contents satisfy the WAC requirements. The photographs can then be used for the waste container's permanent record. Contact your WMC to discuss the packaging requirements.

6.9.3 Empty Containers

Containers less than or equal to 110 gallons in size are considered RCRA empty (see Section 5, Instructions-Hazardous Waste, for more guidance) if all of the following requirements are satisfied:

- All of the material has been removed that can be removed using the practices commonly employed to remove the material from that type of container (e.g. pouring or pumping)
- No more than one inch of residue remains in a drum or no more than three percent by weight of the total capacity remains in the container
- Aerosol cans **ARE** empty of both the propellant and the liquid, and then punctured

NOTE *Empty nonreturnable compressed gas cylinders (except those that contained a P-listed material) can be disposed of as noncompactible LLW if it is punctured or if the valve is open and has a wire inserted through it.*

Empty containers may be disposed of as LLW. Contact your WMC for assistance in disposing of empty containers.

6.9.4 Orphan Waste

No waste is to be left behind when moving out of a STO-supported facility. STO requires the Workspace Inspection Form 1669 be completed when moving out of a STO-supported facility. Complete the form and contact your WMC at least two weeks in advance of moving out of a STO-supported facility.

When an unknown/orphan radioactive waste is discovered**:**

- Do not open the container
- Do not move the container as it could potentially be shock sensitive
- Have an RCT survey the container for radioactivity
- Immediately contact your WMC who will assist with the handling of the orphan waste in terms of:
  - Storing the waste
  - Physically segregating it from other waste
  - Having it analyzed and surveyed
  - Disposing of the orphan waste
- Meet the requirements of Section 5, Instructions-Hazardous Waste, if the waste is also unknown for hazardous characteristics

The full characterization analysis of orphan waste will cost a minimum of $1,500.

6.9.5 Solidification and Immobilization

LLW **MUST** be in solid form for disposal unless it is approved for discharge to the Radioactive Liquid Waste Treatment Facility (RLWTF). Solid LLW containers **MUST**:

- Have no free liquids
- Have as little residual liquid as reasonably achievable
  - Total residual liquids are not to exceed 1% of the volume of the container
  - Complexing and chelating agents (EDTA, DTPA, citric acid, and acetic acid) **MUST** be less than 1% of the waste form.

6.9.5 Solidification and Immobilization (cont.)

Free liquids that do not satisfy the above requirements and that cannot be discharged to the RLWTF **MUST** be immobilized. Absorbent media approved for NNSS disposal include:

- Speedi Dri, Chemsil 50, Celetom, Chemsil3030, Floor Dry/Superfine, Dicaperl HP200, HiDri, Dicaperl HP500, Safe N Dry, Zonolite Gd4, Florco, Florco X, Petroset, Petroset II, Solid A Sorb, Chemsil 30, Aquaset, Aquaset II, Quicksolid

NOTE *Follow the NNSS approved procedure for immobilization of LLW if the waste is destined for the NNSS.*

Powders **MUST** be packaged in a way they do not present a hazard if the outer container is breached. Powders can be placed in a 30-gallon steel drum then overpacked in 55-gallon steel drum. In a bench top glove bag, some methods to immobilize small amounts of powders are:

- Mixing them in epoxy and allowing the epoxy to cure
- Mixing them in cement and allowing the cement to cure

Contact your WMC for assistance with all LLW liquids.

6.9.6 Compaction

MST-6 has a compactor in Room B100 of the Sigma Building for compacting all of the compactable LLW generated in the Sigma Complex. MST-6 personnel operate the compactor. For compactable LLW generated in the Sigma Complex:

- Place the waste in the plastic bag lined can or box in the RCA
- Seal the bag with tape when full (except bags in B100 of Sigma), and replace the bag
- Request an RCT survey the bag for free release (except bags in B100 of Sigma)
- Transfer the bag to B100 for compaction
- Contact your WMC for assistance with this service

6.9.7 Treatment

NOTE *Uranium chips and turnings are not accepted for burial at TSDFs unless they are treated by solidification or oxidation. LANL ships this waste stream to an off-site TSDF for treatment. See section 6.11.8 for packaging of uranium chips and turnings.*

Appropriate methods and techniques to reduce the volume or provide more stable forms **may** be used to treat LLW. RCRA does allow some treatment such as elementary neutralization or treatability studies but the Water Quality And RCRA

6.9.7 Treatment (cont.)

Group requires documentation prior to such treatment. Contact your WMC for assistance with waste treatment.

Example of LLW treatment:

- Neutralize a hydrochloric acid solution used for radioactive material with sodium hydroxide to produce a more stable form of sodium chloride and water

Examples of illegal waste treatment:

- Leaving solvent wetted wipes in a hood or on the bench top to air dry
- Leaving a container open to allow a hazardous waste to evaporate
- Pouring an unapproved waste into a drain
- Diluting a waste to render it non-hazardous
- Venting a pressurized aerosol can solely to remove the propellant

6.10 Waste Classification

Waste that contains radioactivity and that is not classified as a high-level radioactive waste, transuranic waste, or spent nuclear fuel is a LLW. Test specimens of fissionable material irradiated for research and development only, and not for the production of power or plutonium, is classified as LLW when the concentration of transuranics is less than 100 nanocuries per gram of waste.

There are no operations within STO-supported facilities that routinely generate TRU waste. DSESH-STO waste management is to be contacted before generating any TRU waste. Your WMC will assist with the storage, packaging, and disposal of the TRU waste in accordance with LANL requirements and WAC. A STO owned TRU waste program will not be developed until TRU waste is routinely generated.

6.10.1 Depleted Uranium Waste

Depleted uranium waste is always a LLW. Report the radionuclide to DSESH-STO waste management and on forms as U(DEP). Depleted uranium is in equilibrium with its daughter products and concentrations are known.

6.10.2 Tritium Waste

Tritium waste is classified in four package concentration levels:

- Low Activity – less than or equal to 20 milliCuries per cubic meter
  - No special packaging requirements (general requirements in this document for LLW apply)
  - **MUST** satisfy DOT requirements for shipping
- Low Activity – greater than 20 milliCuries and less than or equal to 40 Curies per cubic meter
  - Special requirements apply as indicated in other sections of this document
- Moderate Activity – greater than 40 Curies per cubic meter and less than 500 Curies per package
  - Special requirements apply and are not addressed in this document
- High Activity – greater than 500 Curies per package and less than 100,000 Curies per package
  - Special requirements apply and are not addressed in this document

Most tritium operations in STO-supported facilities generate low-activity tritium contaminated waste for which all the special requirements are addressed in this document. It is important to know the activity level of tritium waste that is to possibly be generated. Contact your WMC for further assistance with tritium waste.

6.10.3 Radioactive Sources

Radioactive sources have a known beginning activity of radioactive material. Depending on the age of a source, the daughter products could result in the source being a TRU waste. For the disposal of a radioactive source, contact your WMC for assistance.

6.10.4 Naturally Occurring Radioactive Material (NORM)

10 CFR and 40 CFR do not regulate wastes that contain NORM as a radioactive waste provided that it hasn't been concentrated. Nonradioactive waste can be released to an appropriate facility that is not licensed to accept radioactive material, such as a hazardous waste landfill.

For material containing NORM, where no radioactive material has been added to the original material and the original material has not been concentrated, contact your WMC for assistance with disposing of the material as nonradioactive waste.

6.10.5 Other Radionuclide Waste

The radionuclides to be used in an operation **MUST** be identified. For assistance with the WAC limits and requirements of radionuclides other than U(DEP), contact your WMC.

6.10.6 Fissile Radionuclides

Normally there are minimal fissile radionuclides used in STO-supported facilities. Contact your WMC if a waste generator **MUST** use fissile radionuclides to verify the requirements in the WAC. There are limits for fissile gram equivalents to protect from criticality and heat generation through radiolysis.

6.10.7 Scintillation Cocktails

Ultima gold is a nonhazardous aqueous/organic solution therefore is not a mixed waste when contaminated with radioactive material. Immobilize these waste solutions using an approved method for Nevada National Security Site (NNSS) disposal (also see section 6.9.5). Request a RCT provide the tritium contamination level for the absorbed material so that the level can be calculated for the disposal request. Gamma spec analyze the container of waste for other radionuclides. The empty containers can then be disposed of in a compactable LLW container.

6.10.8 LLW With Beryllium and/or Carbon

Processed beryllium is not a RCRA hazardous waste therefore it is not a mixed waste when containing a radioactive component. LLW with beryllium is acceptable for burial at TSDFs. This waste **MUST** be double bagged or double wrapped in plastic and packaged in approved DOT containers. The waste must not have beryllium and/or carbon totaling greater than 20% by weight in the waste matrix. Contact your WMC for further assistance.

6.11 Staging, Storage, and Accumulation

NOTE *Hazardous Waste is not to be placed in Radioactive Waste Staging or Storage Areas. Mixed waste **MUST** be accumulated in a Hazardous Waste Satellite Accumulation Area (SAA) or a Hazardous Waste <90 Day Storage Area (<90 Day Area), which **MUST** also be posted as a RCA if required.*

All LLW **SHALL** be accumulated in compactible LLW collection containers, LLW burial boxes, or in sealable containers within the area where the waste is generated. If a container is not full and sealed for disposal but must be moved from the accumulation area, move it to a Radioactive Waste Staging Area. LLW in closed containers that are not sealed for shipment **SHALL** be in compactable LLW collection containers, LLW burial boxes, or in sealable containers in a LLW Radioactive Waste Staging Area. LLW in closed containers that are sealed for shipment **SHALL** be in compactable LLW collection containers, LLW burial boxes, or in sealed containers in a Radioactive Waste Staging Area or Radioactive Waste Storage Area. LLW waste accumulated at generation sites does not require accumulation in a Staging or Storage Area. For LLW accumulated in a room without an RCA, keep LLW containers away from clean waste

6.11 Staging, Storage, and Accumulation (cont.)

containers at all times. Contact your WMC for LLW staging, storage, and accumulation assistance.

LLW in closed containers that are sealed for shipment **MUST** be marked with the closed date and placed in a Radioactive Waste Staging Area or Radioactive Waste Storage Area. LLW must be disposed from these areas within a specific timeframe:

- 90 days for a Staging Area
- One year for a Storage Area

6.11.1 Segregation

Waste streams **MUST** be segregated to meet the LANL WAC:

- Liquids and solids in separate containers
- Hazardous and radioactive wastes are to be kept separate
  - Do not take hazardous materials into RCAs unless absolutely necessary
- Chemical and radioactive waste in accordance with the waste profile:
  - Asbestos
  - PCB waste
  - Beryllium
  - Explosives
  - Pyrophorics
  - Infectious/medical/biological waste

Contact your WMC for further guidance on segregation.

6.11.2 Compactable LLW

Compactable LLW is material capable of undergoing a volume reduction (e.g., paper, plastic, cardboard, cloth, small wood splints, rubber, or glass). A small amount of noncompactable waste (except empty aerosol cans) is allowed in a container of compactable waste. Place compactable LLW in following containers:

- Yellow metal container provided with a plastic bag
- Labeled 1’ x 1’ x 2’ cardboard box with a plastic bag
- Labeled steel drum

LLW for compaction **MUST** not contain:

- Beryllium
- Irradiation sources
- Absorbed liquids
- Immobilized powders
- Aerosol cans
- Gas cylinders
- Tritium greater than 20 milliCuries per cubic meter

NOTE *Tritium LLW greater than 20 milliCuries but less than 40 Curies per cubic meter **MUST** be packaged in steel drums or steel LLW burial boxes. LLW with beryllium **MUST** be double bagged or double wrapped in plastic and placed in steel drums or steel LLW burial boxes.*

6.11.3 Noncompactable LLW

Noncompactable LLW is material not capable of being compacted or of undergoing volume reduction (e.g., metal materials with minimum void space, dense materials, and metal bricks). Place noncompactable LLW in the following containers:

- Labeled 1' x 1' x 2' cardboard box lined with a plastic bag
- Labeled steel drum
- Labeled metal LLW burial box

NOTE *High efficiency particulate air (HEPA) filters and empty aerosol cans are noncompactable waste.*

6.11.4 Compatibility

LLW streams **MUST** be compatible with the:

- Container
- Spill containment (for liquids)
- Other waste in the same spill containment

Contact your WMC or DSESH-STO IHS representative for further guidance on compatibility.

6.11.5 Containers

LLW containers **MUST** satisfy the following criteria:

- In good condition (outer packaging containers) with no structural defects that could impair the integrity of the container such as:
  - Holes
  - Rusting
  - Dents
  - Bulges
- Sufficient thickness that any deformation is within the design parameters; outer packaging containers are purchased to satisfy this requirement
- Filled to minimize the void space (10% or less)

Replace deteriorated or damaged containers immediately. Contact your WMC for assistance with the purchase of the proper containers for the waste being generated.

6.11.6 Weight Limits

The gross weight limits for packaged LLW are:

- 35 pounds for LLW plastic-lined cardboard boxes
- 850 pounds for steel drums
- 10,000 pounds for LLW burial boxes (unless otherwise marked)
- Rated capacity of other types of containers

Verify the rated capacity of all containers whether or not they are listed here. A means to off-load LLW at the LANL TSDF **MUST** be provided for individual packages exceeding 30,000 pounds.

6.11.7 Special Packaging

LLW containing respirable size particulates (e.g., powders or ashes) **MUST** be packaged in a way it will not be a hazard if the container is breached. LLW with respirable particulates such as:

- Powders **MUST** be packaged in a strong inner container and overpacked in a steel drum
- HEPA filters **MUST** be double bagged and placed in the original box of the new filter and overpacked

LLW containing gases **MUST** be packaged at a pressure not exceeding 1.5 atmospheres.

Contact your WMC for further assistance with packaging.

6.11.8 Depleted Uranium Machined Chips And Turnings

U(DEP) machined chips and turnings are pyrophoric and **MUST** be packaged in a way that it will not be a hazard if the outer container is breached. U(DEP) chips and turnings **MUST**:

- Be accumulated and packaged in mineral oil in a metal inner container
- Have an activated charcoal filter (e.g. NucFil filter) on the lid of the inner container to allow generated gases to vent
- Be overpacked in a steel drum with the void space filled with an absorbent material such as vermiculite
- Have an activated charcoal filter (e.g. NucFil filter) on the lid of the outer container to allow generated gases to vent
- NOT be compacted by mechanical or other means

Contact your WMC for further assistance with packaging.

6.12 Labeling

Label each outer container holding LLW with:

- Low-Level Radioactive Waste label or clearly marked:
  - Waste Profile Form (WPF) or Waste Stream Identification (WSID) number
  - Location where waste is generated
  - Waste generator's name
  - Waste generator's group
  - Major radionuclides
  - Package contents
  - Date sealed
  - Weight (when sealed)
  - NRC class
- "Caution Radioactive Material – Radioactive Waste" or "Caution Radioactive Waste"
- For waste contaminated with tritium "Caution Radioactive Material – Tritium Contamination"
- For waste contaminated with beryllium "Danger Contaminated With/Contains Beryllium"

Ensure that all written information is legible. If necessary, cover the label with clear packing tape to protect the ink.

For a mixed waste the requirements of Section 5, Instructions-Hazardous Waste **MUST** also be satisfied.

DSESH-STO waste management supplies the appropriate labels for LLW. Appendix 4, Radioactive Waste Label, illustrates a label supplied by DSESH-STO waste management for LLW. Contact your WMC for assistance with labels.

6.13 Controls

STO uses administrative controls at Clean Waste Collection Points. They are partially maintained by DSESH-STO waste management. To satisfy the administrative control requirements in a Clean Waste Collection Point, the following requirements **MUST** be satisfied:

- Keep postings highly visible
- Use AK or surveys to determine whether the waste is clean
- Keep radioactive materials and contamination away from the containers

Contact your WMC for further assistance with administrative controls.

6.14 Postings

Radioactive Waste Staging Areas **MUST** be posted with a sign with the words "Caution Radioactive Waste – Waste Staging Area."

Radioactive Waste Storage Areas **MUST** be posted with a sign with the words "Caution Radioactive Waste – Waste Storage Area."

Clean Waste Collection Points do not have posting requirements but it is highly recommended to clearly post the area to help prevent contamination of clean waste:

- Sign with the words "Clean Waste Collection Point"
- A list of approved operations in the area

Ensure the postings for storage areas or collection points remain highly visible at all times. Never cover, block, or remove the postings without DSESH-STO waste management approval. Contact your WMC for assistance with postings.

6.15 LLW Disposal

To dispose of radioactive waste:

- Ensure that the WPF accurately describes the waste stream
- Assign a cost string to the WPF in WCATS
- Complete the Waste Acceptance Form or the Waste Item Inventory form
- Submit a STO Service Request to the STO waste management

organization; provide all of the information requested on the STO Service Request including the cost account information for charging the disposal, packaging, and transportation costs

6.16 Nonconformance

Noncompliance with the requirements of this document **may** result in not satisfying the WAC for the destination TSDF. The TSDFs conduct Quality Assurance checks and if the waste does not satisfy the applicable WAC requirements, the originator will be issued a Nonconformance Report (NCR). NCRs are issued for, but not limited to:

- Improperly characterized waste
- Improperly completed or missing forms
- Improperly segregated waste
- Improperly packaged waste
- Improperly labeled waste
- Failure to schedule a waste transfer before it arrives at the TSDF
- Failure to satisfy the WAC requirements

If a discrepancy with a waste is discovered at a TSDF, the TSDF will either accept the waste after remediation or return the waste to the originator. The originator is responsible for all costs associated with remediation. DSESH-STO waste management will assist the waste generator with the initiated corrective actions, remediation of the waste discrepancy, and response to the nonconformance report within 30 calendar days.

6.17 Forecasts

Waste generators are responsible for providing waste volume projections in a timely manner to each TSDF as requested. The volume projection **MUST** be updated during the year when a significant change in the volume is anticipated. The TSDF requesting the information should provide a questionnaire and allow 30 days for a response.

Contact your WMC for assistance with volume projections.

6.18 Leaks/Spills/Discharges

The STO On-Call Duty Officer at pager 664-4444 or 664-4491 **MUST** be immediately notified of any waste leaks, releases, spills, or unusual or accidental discharges through drains to a wastewater facility or outfall, or any accident or emergency situation. Also, you must contact your Operations Manager immediately during business hours.

All LLW leaks, spills, releases, and discharges **MUST** be cleaned up immediately. The clean-up materials **MUST** be managed as the same type of LLW generated from the radioactive material involved. Contact your WMC for assistance.

7. INSTRUCTIONS—UNIVERSAL WASTE

This Instruction is a stand-alone sub-section and **may** be performed independently of, or in conjunction with, other Instruction sub-sections.

7.1 Requirements

NOTE *Failure to comply with all requirements in this document could result in serious disciplinary action.*

All Universal Waste (UW) **SHALL** be accumulated in a Universal Waste Area (UWA), properly labeled, and in closed containers. The LANL WAC is constantly changing but following the requirements in this document will assist in satisfying the requirements in the WAC. DSESH-STO Waste Management personnel keep up-to-date with WAC requirements, and will assist in complying with these requirements.

STO supports Research and Development Organizations with a wide diversity of research operations and waste streams. It is difficult to provide specific guidance in this document for every possible waste stream. Most Universal Wastes generated are lamps, bulbs, batteries, aerosol cans, and mercury ampules.

7.2 Waste Handling Precautions

Use care to ensure the integrity of fluorescent lamps and mercury ampules is not compromised. Breakage of the glass will result in a mercury spill and must be cleaned up immediately.

7.3 Generator Authorization

The Universal Waste requirements in 40 CFR are a sub-set of the hazardous waste requirements promulgated to provide regulatory relief for commonly generated hazardous waste. Therefore there are no authorization requirements for personnel who generate Universal Waste.

7.4 Waste Minimization

Waste generators are required to make every effort to reduce the amount of UW generated as much as is technically and economically feasible. Use disposal as the final option. UW can be minimized through the following methods:

- Material substitution
- Good housekeeping
- Recycle
- Reuse of good items

7.5 Hazardous Waste Determination

Each waste stream **MUST** be classified before or at the time of waste generation in order to properly manage and dispose of the waste. If UW is contaminated with chemicals (e.g., beryllium) that does not allow it to be recycled, then it **MUST** be managed and disposed of as a Hazardous Waste. Your WMC can be contacted to obtain a waste classification and for assistance with completing a Waste Profile Form (WPF).

IF a material is determined to satisfy one of the following criteria:

- Cannot be reused
- Cannot be used for its intended purpose
- Has exceeded its shelf life
- Has no known owner or generator
- Is no longer wanted or needed

THEN the material is **WASTE**.

7.6 UNIVERSAL WASTE

The Universal Waste requirements in 40 CFR are a sub-set of the hazardous waste requirements promulgated to provide regulatory relief for hazardous waste commonly generated throughout facilities. The UW requirements apply to fluorescent lamps, incandescent bulbs, all batteries except alkaline and carbon, unused/unspent pesticides, mercury containing ampules and equipment, and aerosol cans.

7.6.1 Lamp

The bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infrared regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to fluorescent, high-intensity discharge, neon, mercury-vapor, high-pressure sodium, metal-halide, and incandescent.

Fluorescent lamps contain 10 to 40 milligrams of mercury and incandescent bulbs have a lead solder joint and a lead contact point. These types of lamps **MUST** be managed as Universal Waste.

7.6.2 Battery

A device consisting of one or more electrically connected electrochemical cells that is designed to receive, store, and deliver electrical energy. An electrochemical cell is a system consisting on an anode, cathode, and an electrolyte, plus such connections (electrical and mechanical) as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

Batteries often contain toxic metals and electrolytes that are regulated as hazardous waste therefore must be managed as Universal Waste. Examples of common UW batteries are silver oxide, nickel cadmium, lithium ion, mercury, and nickel metal hydride.

Alkaline and carbon batteries are **not** hazardous waste and can be thrown in the trash. Wet lead acid and gel cell batteries **may** be managed for recycle and sent to LANL Salvage.

7.6.3 Pesticide

Any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant. Pesticides must be recalled or unused/unspent to be regulated as a Universal Waste.

7.6.4 Mercury

Mercury-Containing Equipment (MCE) includes devices, items, or articles that are hazardous waste due to the presence of elemental mercury. The mercury must be "integral" to the function of the equipment. Integral means that the mercury must be part of the function of the device. Some commonly recognized MCE are thermostats, barometers, manometers, flow meters, thermometers, pressure gauges, relays, and switches.

There is no requirement to remove ampules from equipment but doing so reduces the amount of waste that must be managed and disposed of as Universal Waste.

7.6.5 Aerosol Can

A container in which gas under pressure is used to aerate and dispense any material through a valve in the form of a spray or foam. Aerosol cans that are classified as hazardous waste should be managed as Universal Waste. Such cans will contain propellant, liquid, or both.

Aerosol cans usually contain ignitable propellants and solvents. Some paints may contain toxic metals such as lead and cadmium. Examples of common UW aerosol cans are WD-40, spray paint, spray lubricant, air deodorizers, 3M adhesive, and dust chaser.

7.7 Characterization

Due to the Universal Waste definitions and requirements that must be met in order to be classified as UW, there is not much need for characterization. The most common type of characterization used in STO for UW is:

- Material Safety Data Sheet (MSDS): MSDSs are almost always used because of the information provided for contents and characteristics are necessary for completing the disposal request form.

7.7.1 Waste Profile Form (WPF)

LANL-wide WPFs for UW are in place to be used for disposal. A WPF must be generated if the waste cannot be classified as UW therefore requiring the waste generator to meet the hazardous waste requirements. The WPF serves as the characterization documentation for a waste stream. The individual completing a WPF is responsible for ensuring that:

- The information on the WPF is accurate and best describes the waste stream
- Each waste stream is on a separate WPF

If the waste cannot be managed and disposed of as Universal Waste, use Section 5, Instructions – Hazardous Waste, of this document as it must be managed as hazardous or mixed waste.

7.7.2 Empty Containers

Aerosol cans **MUST** be empty of both the propellant and the liquid to be classified as nonhazardous waste. STO allows WMCs to use a proper puncturing device for empty dust chaser and compressed air cans. STO requires all other empty aerosol cans be managed as Universal Waste. **DO NOT PUNCTURE** any aerosol cans and contact your WMC for assistance in proper disposal.

7.8 Storage

All UW **MUST** be stored in a Universal Waste Area (UWA). Always keep the UWA free of obstacles or deterioration that could cause a spill, accident, or prevent access by emergency personnel and equipment.

7.8.1 Segregation

Universal waste streams **SHALL** be segregated. Keep:

- waste types in separate containers
- fluorescent and mercury-vapor lamps in separate containers from high-intensity discharge, neon, high-pressure sodium, metal-halide, and incandescent lamps

Batteries can be accumulated together in a single container but must be segregated for submitting the disposal request form.

7.8.2 Compatibility

Universal Waste streams **MUST** be compatible with the:

- Container
- Spill containment
- Other waste in the same spill containment

7.8.3 Containers

NOTE *EPA explained that the purpose of the closed container requirement is "to minimize emissions of volatile wastes, to help protect ignitable or reactive wastes from sources of ignition or reaction, to help prevent spills, and to reduce the potential for mixing of incompatible wastes and direct contact of facility personnel with waste."*

Universal Waste containers **MUST** be:

- Sealed/closed to the EPA's intent
  - — the only time a universal waste container can be open is when waste is actively being put into the waste container
  - — boxes used for fluorescent lamps **MUST** have no holes that glass shards could be released through
- In good condition
  - — replace deteriorated or damaged containers immediately
- Compatible with the waste
  - — use containers suitable for the type of waste

Package MCE in a manner to prevent breakage of glass ampules.

Examples of noncompliant open containers are:

- Handle hole on a lamp box open
- Zip lock bags not completely sealed
- Lid completely off the container
- Leaking battery not in a closed container

7.8.4 Universal Waste Area (UWA)

UWAs are limited by time, not by volume. Waste placed in UWAs **MUST** be characterized and transferred to a TSDF or recycling facility within one year. The one year period starts once waste accumulation begins in a container but a disposal request must be submitted by the end of six months. If waste is added to that same container at a later date, do not change the date.

In a UWA, each container **MUST** be:

- Closed
- Labeled or clearly marked with the words "Universal Waste"
- Marked with the accumulation start date

7.9 Labeling

Each outer container holding UW **MUST** satisfy the following:

- Be labeled or clearly marked with the words "Universal Waste"
- List the contents
- Be clearly marked with the accumulation start date

Use pens or markers to write on labels with ink resistant to fading and smudging. If any other ink is used, cover it with clear packing tape in order to protect the ink. Ensure that all written information is legible.

7.10 Postings

UWAs **MUST** have the following postings:

- Sign with the words "Universal Waste Area"
- UWA contact (UWA custodian)
- UWA site identification number

Postings **MUST** remain highly visible at all times. Postings are never to be covered, blocked, or removed without DSESH-STO waste management approval. Contact your WMC for assistance with postings.

7.11 UW Disposal

To dispose of UW:

- Ensure that the LANL wide WPF accurately describes the waste stream
- Complete the Waste Acceptance Form or the Waste Item Inventory form
- Submit a STO Service Request online for your DSESH-STO WMC.

Provide all of the information requested on the STO Service Request including the cost account information for charging the disposal, packaging, and transportation costs.

7.12 Nonconformance

Noncompliance with the requirements of this document **may** result in not satisfying the LANL WAC for the destination TSDF or recycling facility. The TSDFs conduct Quality Assurance checks and if the waste does not satisfy the applicable WAC requirements, the originator will be issued a Nonconformance Report (NCR).

NCRs are issued for, but not limited to, the following:

- Improperly characterized waste
- Improperly completed or missing forms
- Improperly segregated waste
- Improperly packaged waste
- Improperly labeled waste
- Failure to schedule a waste transfer before it arrives at the TSDF
- Failure to satisfy the WAC requirements

Waste that is discovered at the TSDF to have discrepancies is either accepted after remediation or returned. The waste generator is responsible for all costs associated with remediation. DSESH-STO waste management will assist the waste generator with the initiated corrective actions, remediation of the waste discrepancy, and response to the nonconformance report within 30 calendar days.

7.13 Forecasts

Waste generators are responsible for providing waste volume projections in a timely manner to each TSDF as requested. The volume projection **MUST** be updated during the year when a significant change in the volume is anticipated. The TSDF requesting the information should provide a questionnaire and allow 30 days for a response. Universal Waste is reported to the requesting official as chemical waste.

Contact your WMC for assistance with volume projections.

7.14 Leaks/Spills/Discharges

The STO On-Call Duty Officer at pager 664-4444 or 664-4491 **MUST** be immediately notified of any waste leaks, releases, spills, or unusual or accidental discharges through drains to a wastewater facility or outfall, or any accident or emergency situation. Also, you must contact your Operations Manger immediately during business hours.

All UW leaks, spills, releases, and discharges **MUST** be cleaned up immediately. The clean-up materials **MUST** be managed as a **hazardous waste** in most cases. Contact your WMC for assistance.

8.0 INSTRUCTIONS—BIOLAGICAL WASTE

This Instruction is a stand-alone sub-section and **may** be performed independently of, or in conjunction with, other Instruction sub-sections.

8.1 Requirements

NOTE *Failure to comply with all requirements in this document could result in serious disciplinary action.*

Biological waste that is classified as Regulated Infectious Waste and not treated on-site **SHALL** be accumulated in a Special Waste Area (SWA) properly labeled and in closed containers. The LANL WAC is constantly changing but following the requirements in this document will assist in satisfying the requirements in the WAC. DSESH-STO Waste Management personnel keep up-to-date with WAC requirements, and will assist in complying with these requirements.

Biological Division (B Division) has requirements for biological waste management in B-DOC-100 titled Biosafety User's Manual that are not addressed in this instruction. B Division personnel are required to follow the added division requirements in B division operations.

STO supports Research and Development Organizations with a wide diversity of research operations and waste streams. It is difficult to provide specific guidance in this document for every possible waste stream. Most biological wastes in STO-supported facilities are treated on-site using an approved autoclave method.

8.2 Waste Handling Precautions

Individuals using or handling chemicals and biological agents **MUST** know those materials used in each operation and the products of any reactions. Use care to ensure the integrity of waste containers is not compromised. Use proper PPE for the level of biological waste being handled.

8.3 Generator Authorization

There are no regulatory authorization requirements for personnel who generate biological waste but the waste generator **MUST** complete Waste Generation Overview training to own Waste Profile Forms (WPF). Personnel handling biological materials are Authorized Workers through the LANL Integrated Management System for their IWDs therefore are authorized to generate biological waste.

8.4 Waste Minimization

Waste generators are required to make every effort to reduce the amount of biological waste generated as much as is technically and economically feasible. Biological waste can be minimized through the following methods:

- Material substitution
- Good housekeeping
- Disinfection, decontamination, sterilization

8.5 Hazardous Waste Determination

Each waste stream **MUST** be classified before or at the time of generation in order to ensure that the waste is managed and disposed of properly. Biological waste that is contaminated with or contains a material that is classified as a hazardous waste must be managed and disposed of as hazardous waste. Your WMC can be contacted to obtain a waste classification and for assistance with completing a WPF.

IF a material is determined to satisfy one of the following criteria:

- Cannot be reused
- Cannot be used for its intended purpose
- Has exceeded its shelf life
- Has no known owner or generator
- Is no longer wanted or needed
- Is an end product of a process or experiment that cannot be used as feedstock in an existing process

THEN the material is **WASTE**.

8.6 Autoclave (Wet Heat)

Decontamination of cultures and items contaminated by biohazardous agents is a vital step toward protection of workers from infectious disease and prevents release of such agents into the community. Sterilization of media and equipment is a critical component of standard quality control.

All solid biological waste generated in a BSL-2 laboratory **must** be decontaminated before leaving the laboratory, or must be monitored by the generator until autoclaved. BSL-1 waste generated in a BSL-2 laboratory is not required to be autoclaved before leaving the laboratory.

You **must** meet the autoclave requirements in chapter 16 of OST 402-530-00 titled Biosafety Manual to ensure your waste has been effectively sterilized for Municipal Refuse (regular trash) disposal.

8.6 Autoclave (Wet Heat) (continued)

Autoclave requirements include:

- For BSL-1 waste, the autoclave may be on the same floor
- For BSL-2 waste, the laboratory shall either have an autoclave within the laboratory, or the waste shall be placed in a durable, leakproof container and closed for transport from the laboratory
- For BSL-3 waste, the autoclave shall be located within the laboratory
- Complete the autoclave log for each autoclave cycle
- Use a chemical indicator (e.g. autoclave tape) with each load
- Monitor sterility at least every 40 hours of autoclave operation using appropriate biological indicators (Bacillus stearothermophilus spore strips) placed at locations throughout the autoclave
- Re-autoclave if the autoclave does not attain the minimum time and/or temperature or the autoclave tape does not change color
- FAX form 4002-530-00-16.2 "Noninfectious Waste Transfer" to Los Alamos County Solid Waste Division at least annually or upon any change affecting the sterilization process for autoclaved waste

Caution: Dry hypochlorites, or any other strong oxidizing material, shall not be autoclaved with organic materials such as paper, cloth or oil as a violent reaction may occur.

8.7 Biological Waste

Waste that contains or is a Biohazardous Material which includes a biohazardous agent (bacteria, chlamydia, fungi, parasites, prions, rickettsias, and viruses); recombinant DNA; human or primate tissues, fluids, cells, or cell culture; biological select agents and toxins; transgenic plants or animals; human gene therapy; animals known to be reservoirs of zoonotic diseases, and toxins and allergens of biological origin.

8.7.1 Regulated Infectious Waste

New Mexico Special Waste (NMSW) Infectious Waste is a solid waste (not a hazardous, radioactive, or regulated PCB waste) that carries a probable risk of transmitting disease to humans or animals. The definition is complex and includes wastes such as:

- cultures and stocks of infectious agents and associated biologicals
- human pathological wastes, including tissues, organs, and body parts, but not including hair, or nails
- human and body fluid waste (except body excretions such as feces and secretions such as nasal discharges, saliva, sputum, sweat, tears, urine, and vomitus unless visibly contaminated with blood or other regulated waste from a person or animal)

8.7.1 Regulated Infectious Waste (continued)

- contaminated animal carcasses, body parts, blood, blood products, secretions, excretions, and bedding of animals that were known to have been exposed to zoonotic infectious agents or non-zoonotic human pathogens, including during research
- biological wastes and waste contaminated with bloody excretions, exudates, or secretions
- discarded sharps, used or unused (unless in original packaging), generated at a facility, that have, or are likely to have, come in contact with infectious agents while involved in human or animal patient care, treatment, or research, including hypodermic needles, syringes (with the attached needle), Pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, culture dishes, suture needles, slides, cover slips, and other broken or unbroken glass or plasticware, unless properly treated or otherwise specifically exempted

8.7.2 BSL-1

A level that includes bioagents that are not known to cause disease in healthy adults.

8.7.3 BSL-2

A level that includes bioagents associated with human disease and hazards from autoinoculation, ingestion, and mucous membrane exposures.

8.7.4 BSL-3

A level that includes indigenous or exotic bioagents communicated through aerosols and that produce diseases with serious or lethal consequences.

8.8 Characterization

Due to the biological waste definitions and requirements that must be met in order to be classified as biological waste, there is not much need for characterization. The most common types of characterization used in STO for biological waste are:

- Acceptable Knowledge (AK): The Integrated Work Document (IWD) or lab notebook for each process serves as the AK documentation. Give the identifying number to your WMC when completing a WPF. If the waste is generated from a non-specific process with no documentation, the WMC will assist in writing the AK in the "Additional Information" section of the WPF.
- Material Safety Data Sheet (MSDS): MSDSs are almost always used because of the information provided for contents and characteristics are necessary for completing the disposal request form.

8.8.1 Waste Profile Form (WPF)

The WPF serves as the characterization documentation for a waste stream. The individual completing a WPF is responsible for ensuring that:

- The information on the WPF is accurate and best describes the waste stream
- Each waste stream is on a separate WPF

Each WPF is active for one year. An email will be sent to the WPF owner from WCATS notifying the owner that the WPF **MUST** be reviewed to determine whether the WPF still satisfies the waste stream. If the WPF is still applicable, the owner extends the WPF for a year through the database.

If the waste cannot be managed and disposed of as Municipal Refuse or New Mexico Special Waste, use Section 5, Instructions – Hazardous Waste, of this document as it must be managed as hazardous or mixed waste.

8.8.2 Empty Containers

Containers that contained a Biohazardous Material **must** be autoclaved even when empty. Package the empty container with waste to be autoclaved.

8.9 Storage

Biological waste that is classified as Regulated Infectious Waste and not treated on-site **SHALL** be accumulated in a Special Waste Area (SWA), properly labeled, and in closed containers. Contact your WMC for further guidance.

8.9.1 Segregation

Waste streams **SHALL** be segregated. Keep:

- liquids and solids in separate containers
- biological, hazardous, and non-hazardous waste in separate containers

Biological waste **MUST** be physically segregated (e.g., separate spill trays or cabinets) from the following while in storage:

- Non-hazardous waste
- Incompatible waste
- Mixed waste
- Radioactive waste
- Product chemicals

8.9.2 Compatibility

Biological waste streams **MUST** be compatible with the:

- Container
- Spill containment
- Other waste in the same spill containment

8.9.3 Containers

NOTE *EPA explained that the purpose of the closed container requirement is "to minimize emissions of volatile wastes, to help protect ignitable or reactive wastes from sources of ignition or reaction, to help prevent spills, and to reduce the potential for mixing of incompatible wastes and direct contact of facility personnel with waste."*

Regulated infectious waste containers **MUST** be:

- Sealed/closed to the EPA's intent
- In good condition
  - constructed to prevent leaks
  - replace deteriorated or damaged containers immediately
- Compatible with the waste
  - use containers suitable for the type of waste
- Labeled
  - with a biohazard label
  - as "New Mexico Special Waste"

Biological waste for autoclave **MUST** be:

- Sealed/closed in a manner suitable for the autoclave
- In good condition
  - constructed to prevent leaks
  - replace deteriorated or damaged containers immediately
- Compatible with the waste
  - use containers suitable for the type of waste
- Approved for autoclave
  - use autoclave bags that avoid melting, leaking, or the release of toxic gases

8.9.4 Special Waste Area (SWA)

SWAs are limited by time, not by volume. Waste placed in SWAs **MUST** be characterized and transferred to a disposal facility within 90 days after the date the container is filled and ready for transport. The 90 day period starts once the container is sealed but a disposal request must be submitted by the end of 30 days.

In a SWA, each container **MUST** be:

- Tightly closed
- Labeled or clearly marked with the words "New Mexico Special Waste"
- Marked with the accumulation start date
- Marked with a list of container contents and their hazards (e.g., inhalation, ingestion, dermal)
- Marked with the generator's name and address

8.10 Labeling

Each outer container holding Regulated Infectious Waste **MUST** satisfy the following:

- Bags must be labeled with the words **Biohazard, Biological Hazard** or have the **Biohazard Symbol**
- Rigid containers must be labeled **Biomedical Waste** or **Infectious Waste** or they may be labeled in the same manner as bags
- List the contents
- Be clearly marked with the accumulation start date

Best Management Practice: Biohazard bags and sharps containers for autoclave should be labeled or marked with the Group name, building number, and room number. All containers at LANL must be labeled with at a minimum, it's contents to avoid a RCRA violation as an abandoned waste.

Use pens or markers to write on labels with ink resistant to fading and smudging. If any other ink is used, cover it with clear packing tape in order to protect the ink. Ensure that all written information is legible.

8.11 Postings

SWAs **MUST** have the following postings:

- Sign with the words "Special Waste Area"
- SWA contact (SWA custodian)
- SWA site identification number

Postings **MUST** remain highly visible at all times. Postings are never to be covered, blocked, or removed without DSESH-STO waste management approval. Contact your WMC for assistance with postings.

8.12 Disposal

After autoclave bags have cooled sufficiently to handle, they shall be disposed in a solid waste container. The waste generator disposes of autoclaved waste.

To dispose of Regulated Infectious Waste:

- Ensure that the WPF accurately describes the waste stream
- Complete the Waste Acceptance Form or the Waste Item Inventory form
- Submit a STO Service Request online for your STO WMC. Provide all of the information requested on the STO Service Request including the cost account information for charging the disposal, packaging, and transportation costs.

8.13 Nonconformance

Noncompliance with the requirements of this document **may** result in not satisfying the LANL WAC for the destination TSDF or recycling facility. The TSDFs conduct Quality Assurance checks and if the waste does not satisfy the applicable WAC requirements, the originator will be issued a Nonconformance Report (NCR).

NCRs are issued for, but not limited to, the following:

- Improperly characterized waste
- Improperly completed or missing forms
- Improperly segregated waste
- Improperly packaged waste
- Improperly labeled waste
- Failure to schedule a waste transfer before it arrives at the TSDF
- Failure to satisfy the WAC requirements

Waste that is discovered at the TSDF to have discrepancies is either accepted after remediation or returned. The originator is responsible for all costs associated with remediation. DSESH-STO waste management will assist the waste generator with the initiated corrective actions, remediation of the waste discrepancy, and response to the nonconformance report within 30 calendar days.

8.14 Forecasts

Waste generators are responsible for providing waste volume projections in a timely manner to each TSDF as requested. The volume projection **MUST** be updated during the year when a significant change in the volume is anticipated. The TSDF requesting the information should provide a questionnaire and allow 30 days for a response. Regulated Infectious Waste is reported to the requesting official as chemical waste.

Contact your WMC for assistance with volume projections.

8.15 Leaks/Spills/Discharges

The STO On-Call Duty Officer at pager 664-4444 or 664-4491 **MUST** be immediately notified of any waste leaks, releases, spills, or unusual or accidental discharges through drains to a wastewater facility or outfall, or any accident or emergency situation. Also, you must contact your Operations Manager immediately during business hours.

All biological waste leaks, spills, releases, and discharges **MUST** be cleaned up immediately. The cleanup materials **MUST** be autoclaved or managed as a **Regulated Infectious Waste**. Contact your WMC for assistance.

9.0 DEFINITIONS AND ACRONYMS

NOTE *Use LANL document Definition Of Terms found at https://policy.lanl.gov/pods/policies.nsf/MainFrameset?ReadForm&DocNum=definitions&FileName=definitions.pdf for more definitions.*

9.1 Definitions

Acceptable Knowledge (AK).

Includes process knowledge, supplemental waste analysis data, and facility records or analysis as applied to waste characterization.

To utilize process knowledge for "Green is Clean," the generator **MUST** possess enough knowledge of the item's use and history to accurately make a determination of the following requirements:

- no spill or airborne release has occurred in the area since the most recent radiological survey;
- no direct contact between item and radioactive contamination has occurred;
- no tag or label which indicates radioactive or potentially radioactive contamination;
- not connected to a contaminated or activated system;
- no potential for activation;
- not used or located so that contamination is suspected; and
- no other reason to suspect the item is contaminated.

If the answer to any of these questions is yes or unknown, assume the item is LLW unless a survey of the item indicates that it is clean.

Appropriate Release Criteria (ARC).

Radiological criteria used to release equipment, material, and waste from RCAs and/or radiological areas as clean. ARC are defined for both surface contamination and volume contamination, specific to the media and radionuclides.

Approved Users.

Authorized users identified by the Hazardous Waste Satellite Accumulation Area (SAA) custodians, who have approval to use a specific SAA. SAA custodians **may** select all authorized users or a subset of the authorized user list.

Authorized Employees.

Workers who generate waste and have completed the required training and been authorized by their line management to perform these activities.

Authorized Operation.

Operation with an up-to-date Integrated Work Document (IWD) that has been authorized by line management.

Authorized Users.

Waste generators who have completed required training as specified by the STO training staff and documented in their UTrain Curricula.

Bioagent/Biohazard.

9.1 Definitions (cont.)

An organism or product of an organism that presents a risk to humans i.e., infectious microorganisms, biological allergens, and toxins, such as c. botulinum and legionella pneumophila).

Bioagent/Biohazard Toxin.

Any substance produced from a microorganism (e.g., bacterium, virus, fungus, or protozoan), that has the potential to cause injury or illness in humans.

Biosafety Level 1 (BSL-1).

A level that includes bioagents that are not known to cause disease in healthy adults.

Biosafety Level 2 (BSL-2).

A level that includes bioagents associated with human disease and hazards from autoinoculation, ingestion, and mucous membrane exposures.

Biosafety Level 3 (BSL-3).

A level that includes indigenous or exotic bioagents communicated through aerosols and that produce diseases with serious or lethal consequences.

Clean Waste.

Waste that is not radioactively contaminated as determined through use of AK or survey.

Compactible Waste.

Materials that are capable of undergoing volume reduction (e.g., paper, plastic, cardboard, cloth, small wood splints, rubber, and glass).

Green Is Clean.

The LANL LLW minimization program which specifies the requirements that allow for waste segregation within RCAs established for contamination control purposes.

Hazardous Waste.

As defined by the Resource Conservation and Recovery Act (RCRA), a Solid Waste is a hazardous waste if it is not excluded from regulation as a hazardous waste, exhibits any of the characteristics of hazardous waste (ignitability, corrosivity, reactivity, or toxicity), is listed in the regulations as a hazardous waste and has not been excluded, or is a mixture of a Solid Waste and a hazardous waste.

Hazardous Waste < 90 Day Storage Area (< 90 day area).

An area where hazardous or mixed waste **may** be stored for up to 90 days.

Hazardous Waste Satellite Accumulation Area (SAA).

A designated space located to serve a process, a room, or a suite of rooms for accumulating hazardous and mixed waste where the volume of hazardous waste **may** not exceed 55 gallons or the volume of acutely hazardous waste **may** not exceed one quart. The accumulation area **MUST** be located at or near the point of generation and be under the control of the generator/operator of the process generating the waste.

9.1 Definitions (cont.)

Low-Level Radioactive Waste (LLW).

Waste that contains radioactivity and is not classified as high-level waste, transuranic waste, or spent nuclear fuel as defined in DOE Order 5820.2A, "Radioactive Waste Management." Test specimens of fissionable material irradiated for research and development only, and not for the production of power or plutonium, **may** be classified as LLW, provided the concentration of transuranics is less than 100 nanocuries per gram of waste.

Mixed Waste.

Any material that is a hazardous waste that also contains a radioactive component.

Noncompactible Waste.

Materials not capable of being compacted or of undergoing volume reduction (e.g., metal materials with minimum void space and metal bricks). Note: HEPA filters and empty aerosol cans are noncompactible waste.

Nonradioactive Waste.

Waste that is known to contain no added (or concentrated Naturally Occurring Radioactive Material [NORM]) radioactive material by either monitoring and analysis, acceptable knowledge or both. Nonradioactive waste can be released to an appropriate facility that is not licensed to accept radioactive material, such as a sanitary or hazardous waste landfill.

Orphaned or Unknown Waste.

Any material or waste with an unknown origin, generator, constituent, or process; or any material or waste that was abandoned or does not have a defined owner.

Packaging.

The waste container; the term refers to the devices, including liners and closures, used in the packaging of waste. The waste package is the final configuration of the waste in its container ready for transport to the disposal site.

Radioactive Waste.

Solid, liquid, or containerized gaseous material that contains radionuclides regulated under the Atomic Energy Act of 1954, as amended, and is of negligible economic value considering costs of recovery. Radioactive waste has radioactive surface contamination present in excess of the unrestricted release levels in DOE 5400.5, or has volume contamination at statistically measurable levels above background.

Radioactive Waste Management Basis (RWMB).

Identifies physical and administrative controls for radioactive waste facilities, operations, and activities to ensure the protection of workers, the public, and the environment. The RWMB shall reference or define the conditions under which the facility may operate.

9.1 Definitions (cont.)

Radiological Controlled Area (RCA).

Any area to which access is managed to protect individuals from exposure to radiation or radioactive materials. In an RCA controlled for contamination, a reasonable potential exists for contamination to occur at levels in excess of those specified in DOE Order 5400.5, Table 1, or a reasonable potential exists for an individual to receive more than 0.1 rem committed effective dose equivalent (CEDE) during a year from intakes. In an RCA controlled for volume contamination, a reasonable potential exists for the presence of volume-contaminated materials that are not individually labeled. In an RCA controlled for external radiation, a reasonable potential exists for an individual to receive more than 0.1 rem during a year from external radiation fields.

Regulated Infectious Waste.

Liquid or semiliquid human blood or other potentially infectious material; contaminated items that release human blood or other potentially infectious materials in a liquid or semiliquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing human blood or other potentially infectious materials. Guidance Note: These wastes, as well as contaminated animal carcasses and bedding are regulated in the State of New Mexico as “infectious wastes,” which is a subcategory of New Mexico Special Waste.

SAA Custodian.

Person who has oversight of the SAA to help STO waste management ensure waste generators maintain the storage requirements for that SAA.

Solid Waste.

As defined by regulation promulgated under the Resource Conservation and Recovery Act (RCRA) and the New Mexico Hazardous Waste Act, unless otherwise excluded, any discarded material, either abandoned, recycled, or inherently waste-like which includes liquids, solids, semisolids, and/or contained gases. Solid Waste can be simply solid or special, hazardous, nonhazardous, radioactive (including transuranic), or mixed waste. Waste consisting solely of source, special nuclear, or byproduct material, as defined by the Atomic Energy Act, is exempt from the Solid Waste regulations as defined by RCRA. Environmental media (e.g., soil or water) is not Solid Waste unless it is destined for disposal.

9.1 Definitions (cont.)

Survey.

In the context of this document, monitoring of waste by an appropriate method (i.e., direct frisk or smear) for loose or fixed radioactive surface contamination to determine the proper waste characterization. To be released as clean, the item **MUST** satisfy the following conditions:

- Detection limits for survey instrumentation are appropriate for the Acceptable Release Criteria (ARC)
- Survey results indicate that the ARC is satisfied
- Interior surfaces or volumes are determined to be free of contamination based on documentation.

Suspect Radioactive Waste.

Waste that is generated in an area where radioactive materials are present but that cannot be verified as being radioactive or nonradioactive.

Transuranic (TRU) Waste.

Without regard to source or form, waste that is contaminated with alpha-emitting transuranic radionuclides with half-lives greater than 20 years and concentrations greater than 100 nanocuries per gram at the time of assay and that have atomic numbers greater than 92.

Treatment/Storage/Disposal Facility (TSDF).

All contiguous land, and structures, other appurtenances, and improvements on the land used to treat, store, or dispose of waste.

Waste Characterization.

The determination of a waste's physical, radiological, and chemical characteristics with sufficient accuracy to permit proper segregation, treatment, storage, and disposal according to the permitted TSDF's waste acceptance criteria.

Waste Generator.

Any individual, and his or her line management, having direct line responsibility for operations that generate waste (for example, a research scientist or project manager). A waste generator **may** or **may not** be a member of an organization responsible for the facility or site where the waste is generated.

Waste Management Coordinator (WMC).

The individual responsible for coordinating waste management activities on behalf of the waste generators, line managers, facility managers, field project leaders, the waste management groups and other Laboratory organizations. The WMC also coordinates resolution of waste management issues on behalf of the waste-generating organization and reviews documents pertaining to waste management.

9.1 Definitions (cont.)

Waste Stream.

A waste or group of wastes from one or more processes or facility with similar physical, chemical, and/or radiological characteristics. These characteristics are usually grouped according to WAC treatment, storage, or disposal requirements.

Worker.

A Los Alamos National Security (LANS) employee, contract worker, or anyone who works at LANL.

9.2 Acronyms

AK	Acceptable Knowledge
DOE	Department Of Energy
DOT	Department Of Transportation
EMS	Environmental Management System
EPA	Environmental Protection Agency
FWCP	Facility Waste Certification Program
IWD	Integrated Work Document
LANL	Los Alamos National Laboratory
LANS	Los Alamos National Security, LLC.
LLW	Low-Level Radioactive Waste
NFPA	National Fire Protection Agency
NMED	New Mexico Environment Department
NNSS	Nevada National Security Site
NORM	Naturally Occurring Radioactive Material
PCB	Polychlorinated Biphenyl
PPM	Parts Per Million
RCA	Radiological Control Area
RCRA	Resource Conservation and Recovery Act
RCT	Radiological Control Technician
RLWTF	Radioactive Liquid Waste Treatment Facility
RWMB	Radioactive Waste Management Basis
SAA	Hazardous Waste Satellite Accumulation Area
STO	Science and Technology Operations
SWA	Special Waste Area
TRU	Transuranic
TSDF	Treatment/Storage/Disposal Facility
U(DEP)	Depleted Uranium
UWA	Universal Waste Area
WAC	Waste Acceptance Criteria

9.3 Acronyms (cont.)

WMC	Waste Management Coordinator
WPF	Waste Profile Form

10.0 RESPONSIBILITIES

10.1 STO Facility Operations Director

- Ensure that the facility complies with Laboratory, DOE, and governmental orders and requirements, and institutional safety management programs.
- Establish and maintain the safety, security, and environmental compliance envelope.
- Approve and issue procedures that accurately establish administrative, technical, and response guidance for the overall safe, secure, and environmentally compliant operation of the assigned facilities.
- Request and ensure that FOD personnel (operations, maintenance, engineering, ESH&Q, waste management, technical support, and administrative personnel) have appropriate training and qualifications to support facility and programmatic activities.
- Perform field observations and assessments to ensure that activities are safely and correctly conducted.
- Maintain a proactive preventative maintenance program to ensure that biological laboratory engineering controls and emergency equipment (e.g., ventilation systems, detectors, shutoff devices, and emergency eyewash and safety showers) are in proper operating condition.
- Inform on-site subcontractors of the presence and identity of biological hazards in their immediate work areas.

10.2 DSESH-STO Environment, Safety and Health Manager

- Support and enable work execution to promote safety and compliance in accordance with applicable ESH requirements.
- Manage deployed resources to support facility operations and ESH program implementation.
- Perform periodic walk downs to identify noncompliant storage and or uncontrolled excess materials.
- Work with line management to ensure the deployed workers' safety.
- Review facility- and programmatic-specific ESH data for trends, and involve Subject Matter Experts (SMEs) to make recommendations for improvement including waste reduction and pollution prevention.
- Work with institutional support organizations to coordinate customer involvement in regulatory inspections and audits.

10.3 STO Operations Manager

- Maintain safety, environmental compliance envelope, and facility physical security.
- Prepare and issue or recommend procedures that accurately establish administrative, technical, and response guidance for the overall safe, secure, and environmentally compliant operation of the assigned facilities.
- Ensure that the facilities comply with Laboratory, DOE, and governmental orders and requirements, and institutional safety and environmental management programs.
- Perform field observations and assessments to ensure that activities are safely and correctly conducted.

10.4 Facility Responsible Associate Director (RAD)

- Own the facility safety, security, and environmental compliance envelope.
- Set and communicate expectations for the safe, secure, and environmentally compliant operation of the facility.
- Establish the environmental improvement strategy for the directorate, including an ISO 14001 compliance Environmental Action Plan according to DOE O 450.1A, *Environmental Protection Program*.
- Before vacating any facility, ensure that all excess materials, property, wastes, and equipment are vacated and that all requirements in Form 1669, *Workspace Inspection Form*, are completed.

10.5 Responsible Line Manager (Group and Center Leaders)

- Define the work in sufficient detail to assess the safety, security, and environmental compliance risks.
- Identify and analyze work and environmental hazards and grade these hazards to determine IWM and environmental control requirements.
- Ensure all new and modified work is evaluated for environmental risks and controls using the PR-ID according to PD400, *Environmental Protection*.
- Ensure that all workers are trained, qualified, and authorized to perform their assigned work in accordance with P781-1, *Conduct of Training Manual*.
- Establish effective controls to reduce risks to an acceptable level and document them in IWDs so that the workers can understand when and how they are to be used.
- Ensure that work proceeds in a safe, secure, and environmentally responsible manner in accordance with the IWD and PR-ID requirements.
- Determine the competence and commitment of workers to perform specific work assignments in a safe, secure, and environmentally responsible manner and authorize them as appropriate.
- Monitor work to ensure that it is executed in a safe, secure, and environmentally responsible manner in accordance with the IWD.
- In emergencies, ensure that personnel know who to call and what to do. For medical emergencies, life-threatening situations such as a fire, explosion, bomb threat, or terrorist attack, call 911. Callers using mobile phones should be prepared to state the location of the emergency as precisely as possible. For all other situations requiring immediate response or dispatch, to include abnormal/unusual events, unattended packages, spills, leaks, and contamination, contact Emergency Management by calling the EOSC at 667-6211.
- Institute biosafety measures in accordance with P101-15.

10.6 DSESH-STO Waste Management Coordinator (WMC)

- Act as the primary Point Of Contact (POC) on waste-related issues and provide guidance and assistance to maintain compliant operations support.
- Coordinate waste management activities on behalf of waste generators, line managers, facility managers, field project leaders, waste management groups, and other Laboratory organizations.
- Coordinate the resolution of waste management issues on behalf of the waste generating organization.

- Oversee waste generators in the implementation of cradle-to-grave controls for generation, handling, storage, and disposal of facility and process waste.
- Maintain familiarity with waste-generating processes, review scopes of work to ensure that waste management is properly addressed, and review and approve work orders for work that generates regulated wastes.
- Provide guidance to generators in characterizing waste, developing Acceptable Knowledge documentation and preparing Waste Profile Forms.

10.6 DSESH-STO Waste Management Coordinator (WMC) (cont.)

- Walkdown Waste Profile Form extensions with generators.
- Disseminate waste management information to generators in their facilities.
- Support storage, packaging, and labeling of waste.
- Coordinate waste shipments as needed.
- Conduct periodic inspections and monitoring to maintain compliant and efficient waste management operations, support the completion and implementation of waste certification plans, and assist with pollution prevention and waste minimization opportunities.
- Manage facility-owned regulated storage (i.e., Treatment, Storage, and/or Disposal [TSD], less-than-ninety day, or Satellite Accumulation Areas [SAAs]) in accordance with Laboratory requirements.
- Support management of generator-owned regulated storage (i.e., TSD, less-than-ninety day, SAA) by providing surveillance and regulatory guidance in accordance with service agreement and Laboratory requirements.
- Assist operating groups and property custodians in minimizing accumulation or storage of excess materials and recommend reuse, recycle, or disposition of expired materials.
- Participate in the Departure Process by validating waste disposal requirements on Form 1669, Workplace Inspection Form.
- Serve as POC during waste management audits and assessments.
- Assist the Waste Services Manager (WSM) with facility and programmatic Waste Certification Program Plans.
- Provide guidance to waste generators in identifying disposal paths for waste, and support requests for DOE approval of No Disposal Pathway waste.
- Report events related to the improper generation, handling, storage, and disposal of waste, including spills, releases, leaks, or discharges to the WSM and the FOD.
- Stop any work activity thought to be in violation of approved waste generation, handling, storage, or shipping procedures and standards.

10.7 Generators (Authorized/Approves Users)

- Responsible for waste management from cradle to grave.
- Make waste determinations.
- If the WMC and management agree a “no path” waste stream must be generated, work with the WMC to prepare a “Waste with No Disposal Path” approval package.
- Assist in preparing and reviewing waste management sections of Integrated Work Documents (IWDs), waste minimization plans, waste management plans, and project documentation.
- Minimize waste generation and/or segregate waste streams to reduce the costs of waste management and meet the Treatment, Storage, and/or Disposal Facility (TSDF) waste acceptance criteria.
- Generators who own less-than-90--day waste accumulation areas: ensure inspections are performed weekly and/or when waste is actively managed.
- Manage waste in accordance with LANL P409 and its associated tools and maintain waste management records.
- Provide the TSDF accurate and complete documented waste characterization information ensuring that regulated constituents in waste streams are identified.
- Notify the Facility Operations Directors (FODs) or designees—or, if unavailable, notify Emergency Management and Response (EM&R)—and responsible WMCs of a release of waste or wastewater into the environment or of an accidental discharge to a wastewater treatment facility.
- Complete and sign *Waste Profile Form*s (Form 1346, *Waste Profile Form*), and transmit them, along with any necessary supporting information, to the WMC for review and signature.
- Submit a STO Service Request for each service requested involving waste.

11.0 RECORDS

Ensure that documents generated by the performance of this procedure are processed as follows:

Record Identification	Record Type Determination	Protection/Storage Methods	Processing Instructions
Original Inspection Record Forms for each <90 day area Copies of the results of the internal and ENV-RCRA waste area inspection reports FWCP	QA Record	WMC **SHALL** store in the DSESH-STO Waste Management Files for three years, and implement a reasonable level of protection to prevent loss and degradation.	When the records are ready for final disposition, the record is transferred to Records Management in accordance with SR-0011-PRO-ALL-REC MGMT, STO Document Development And Maintenance.
Copies of training records FWCP Training	Non-record	Training Specialist **SHALL** store for three years and implement a reasonable level of protection to prevent loss and degradation.	Destroy when no longer needed.
Copies of WPFs Copies of waste characterization documentation Copies of acceptable knowledge documentation for waste not covered by an IWD Copies of Disposal Request Forms Copies of the waste manifest packages Original Waste Manifests Copies of Non Conformance Reports	Non-record	WMC **SHALL** store in the DSESH-STO Waste Management Files for an indefinite period of time.	Never to be destroyed.
Autoclave logs Autoclave calibration results Geobacillus stearothermophilus tests	QA Record	Waste generating organization **SHALL** store for three years and implement a reasonable level of protection to prevent loss and degradation.	Destroy when no longer needed.

12.0 REFERENCES

CFR 40, Protection of Environment
LANL Procedure P930-1 LANL Waste Acceptance Criteria (WAC)
LANL Procedure P409 Waste Management
LANL Procedure P330-6 Nonconformance Reporting
LANL Procedure P313 Roles, Responsibilities, Authorities, and Accountability
LANL Procedure P101-15, Biological Safety
OST 402-530-00 Biosafety Manual
B-DOC-100 Biosafety User's Manual
SR-0011-PRO-ALL-REC MGMT, Records Management Procedure

13.0 APPENDICES

APPENDIX 1, HAZARDOUS WASTE DISPOSAL PROCESS FLOW CHART
APPENDIX 2, NFPA FLAMMABLE MATERIAL VOLUME LIMITS
APPENDIX 3, HAZARDOUS WASTE LABELS
APPENDIX 4, RADIOACTIVE WASTE LABEL

APPENDIX 1
Page 1 of 1

HAZARDOUS WASTE DISPOSAL PROCESS FLOW CHART

STO Service Request submitted to DSESH-STO Waste Management

▼

Meeting scheduled between the WMC and the Waste Generator

▼

Waste generated and accumulated in a SAA/analysis requested/WPF completed in WCATS

▼

Approved WPF QA checked by DSESH-STO Waste Management

▼

Waste packaged for shipment

▼

Waste Generator completes the Waste Acceptance Form or the Waste Item Inventory form

▼

STO Service Request submitted to DSESH-STO Waste Management requesting disposal

▼

DSESH-STO WMC completes the Waste Item in WCATS

▼

DSESH-STO WMC completes and submits the Disposal Request in WCATS

▼

Shipping Container labeled for shipment

▼

Waste Manifest completed and signed

▼

Waste transported to TSDF by LANL or approved contractor

▼

WMC awaits original Waste Manifest

▼

Original Waste Manifest received within 30 days

▼

Process completed and disposal package filed

APPENDIX 2
Page 1 of 1

NFPA FLAMMABLE MATERIAL VOLUME LIMITS

Flammable waste **MUST** satisfy NFPA requirements:

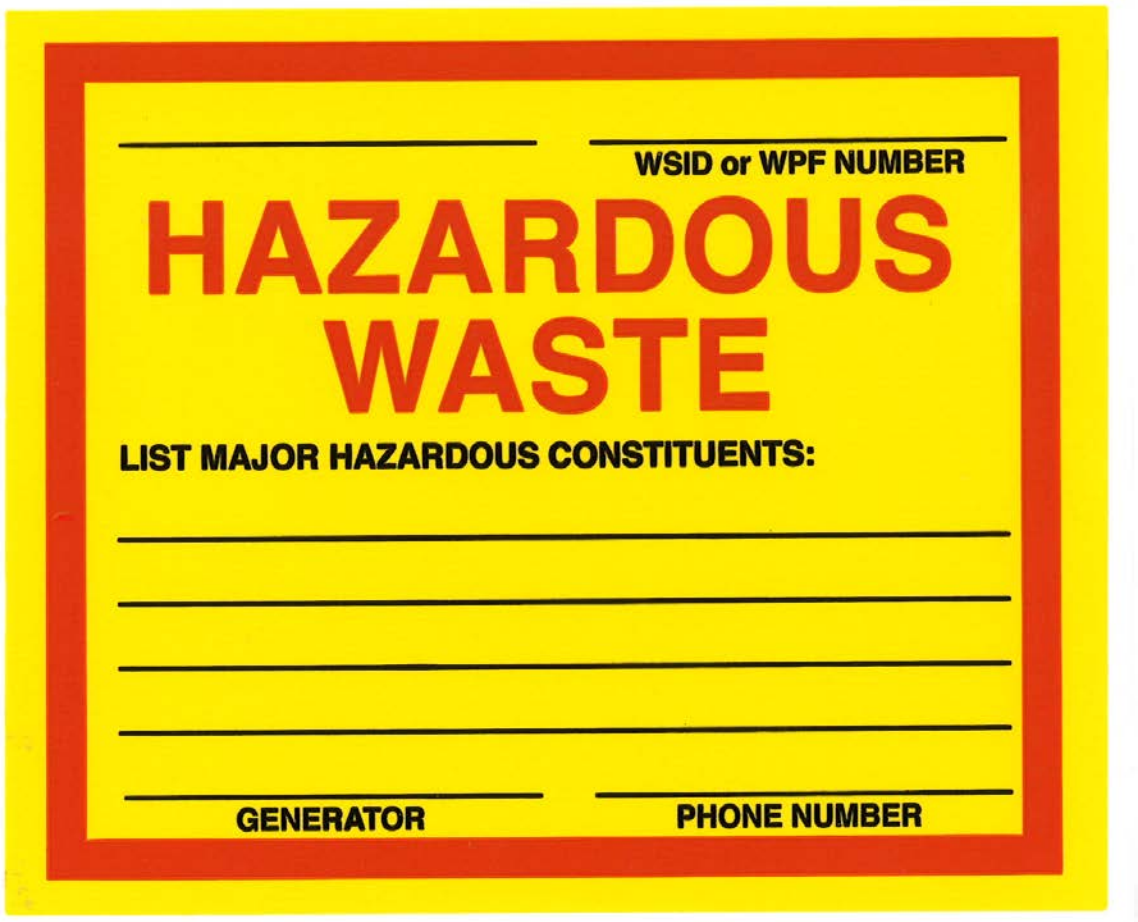
Ensure that there are no ignition sources near the SAA.

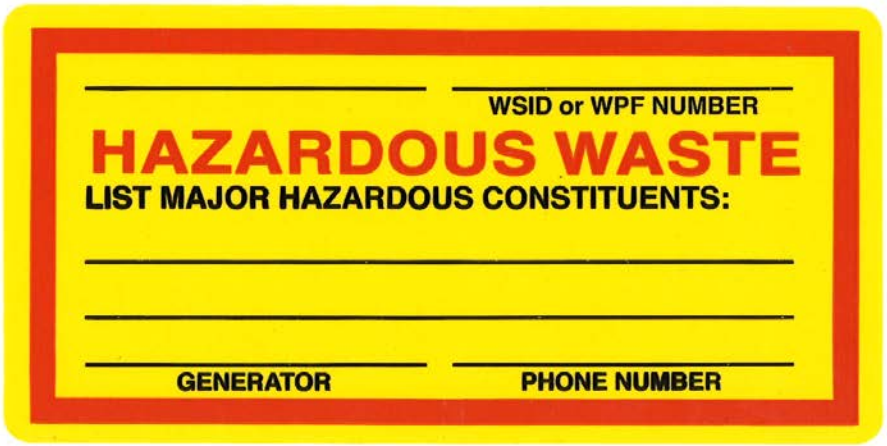
Ensure that non-DOT rated flammable waste containers do not exceed the following volumes:

Flash Point	Boiling Point	Volume	Container Type
< 73 °F	< 100 °F	1 pt	Glass
< 73 °F	< 100 °F	1 gal	Metal or Plastic
< 73 °F	≥ 100 °F	1 qt	Glass
< 73 °F	≥ 100 °F	5 gal	Metal or Plastic
≥ 73 °F and < 100 °F	-	1 gal	Glass
≥ 73 °F and < 100 °F	-	5 gal	Metal or Plastic
100 °F to 140 °F	-	1 gal	Glass
100 °F to 140 °F	-	5 gal	Metal or Plastic
140 °F to 200 °F	-	1 gal	Glass
140 °F to 200 °F	-	5 gal	Metal or Plastic

APPENDIX 3
Page 1 of 1

HAZARDOUS WASTE LABELS





APPENDIX 4
Page 1 of 1

RADIOACTIVE WASTE LABEL



(Black on yellow background)

STO-DO Change Sheet

Document Number: STO-PLAN-010,R1-EXT2
Effective Date: 11/24/15
Next Review Date: 2/22/16

Title: STO Division Building Emergency Plan for SIGMA and BTF Complex

Change Type:	☒ Extension/Valid Until 2/22/16
☐ Minor Revision ☐ Periodic Review, No Revision ☐ Periodic Review, Minor Revision ☐ Classification Review	

Derivative Classifier		Date	
Signature:	Signature on file	8/20/12	☒ Unclassified ☐ UCNI
Printed Name:	Ed Pitchkolan, ADC RO		

Justification/Change or Review Information: *(Place Change Sheets on top of Cover Sheets)*

Page	Change Description
	This BEP is being extended in order to allow SME/Preparer additional time to incorporate additional changes to STO-BEP-001, R0 which had been posted PROVISIONAL pending training and was intended to supersede all STO Division Building Emergency Plans.

Approval:	Organization	Date	Signature
Rich Norman Document Owner	STO-DO	11-16-15	RA Norman
Stephanie Griego Responsible Line Manager	STO-DO	11/20/15	
Cliff Kirkland Facility Operation Director	STO-DO	11/24/15	

STO-DO Change Sheet

Document Number: STO-PLAN-010,R2.1-EXT1
Effective Date: 8/11/15
Next Review Date: 11/9/15

Title: STO Division Building Emergency Plan for Sigma and BTF Complexes

Change Type:	☒ Extension/Valid Until 11/9/15
☐ Minor Revision	
☐ Periodic Review, No Revision	
☐ Periodic Review, Minor Revision	
☐ Classification Review	

Derivative Classifier		**Date**	
Signature:	Signature on file	8/20/12	☒ Unclassified
Printed Name:	Ed Pitchkolan		☐ UCNI

Justification/Change or Review Information: *(Place Change Sheets on top of Cover Sheets)*	
Page	**Change Description**
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Approval:	**Organization**	**Date**	**Signature**
Rich Norman Document Preparer	SEO-4	8-10-15	R a Norman
Stephanie Griego Facility Operation Deputy Director	STO-DO	8/10/15	
Cliff Kirkland Facility Operation Director	STO-DO	8/11/15	

STO-DO
Change Sheet

Document Number: STO-PLAN-010, R2.1
Effective Date: 6/4/14
Next Review Date: 6/4/15

Title:	STO Division Building Emergency Plan for SIGMA and BTF Complexes

Change Type:
- ☐ Minor Revision
- ☒ Periodic Review, No Revision
- ☐ Periodic Review, Minor Revision
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Approval:			
Rich Norman Document Owner/Preparer	SEO-4	6-3-14	RA Norman
Terry Morrison Responsible Line Manager	STO-DO	6/3/14	T Morrison
Rick Alexander Facility Operations Director	STO-DO	6/8/14	For Rick Alexander

STO-DO Change Sheet

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Approval:	**Organization**	**Date**	**Signature**
Terry Morrison Document Owner	STO-DO	6/3/13	
Terry Morrison Responsible Line Manager	STO-DO	6/3/13	
Rick Alexander Facility Operation Director	STO-DO	6-4-13	

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Approval:			
Rico Cambise Document Preparer	EO-EPP	3/7/2013	
Kerry Smith Facility Operation Director	STO-DO	3/7/2013	

STO-DO PLAN

Review and Approval Cover Sheet

Document number: STO-PLAN-010, R2.1

Effective date: 8/22/12

Next review date: 3/6/13

Supersedes: STO-PLAN-010, R2

Title: STO Division Building Emergency Plan for SIGMA and BTF Complexes

Status:	Hazard:	Reference Documents:
☐ New	☒ Low-hazard	
RC ☒ Major revision	☐ Moderate-hazard	Type of Training:
☒ Minor revision	☐ High-hazard/complex	☒ Required Reading
☐ Review, no change		☐ Activity-Level/OJT
	Use Type:	☐ Briefing/Classroom Instruction
	☒ Reference ☐ Use every Time	☐ Self paced Instruction (e.g., webpage or instruction manual)

	Name	Organization	Date	Signature
Prepared By:				
	Ricardo G. Cambise	EO-EPP	8/21/2012	
Concurrence:				
Approval:				
	Terry Morrison	STO-DO	8/21/12	
	Document Owner			
	Terry Morrison	STO-DO	8/21/12	
	Responsible Line Manager			
	Rick Alexander	STO-DO	8-22-12	
	Facility Operations Director			

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		☐ Confidential
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HISTORY OF REVISIONS

Document Number	Effective Date	Action	Description
STO-PLAN-010, R0	6/14/10	New	This document supersedes MAN-0021-SIGMA-BTF-EMG PREP, *Chapter 12: SIGMA & Beryllium Technology Facility (BTF) Complexes Building Emergency Plan.*
STO-PLAN-010, R1	12/08/2010	Major	Assembly areas need a better explanation of current locations. Also Assembly Area maps need to be replaced to properly identify Assembly Areas. Add verbiage to identify what needs to be done if there is a discovery of an abnormal event or condition 5.3
STO-PLAN-010, R2	3/6/12	Major	Add procedure to the BEP for room P-100. Add additional notifications to 5.3 for LANL Emergency Operations Division. Update the BEP to include the tie to P1201-4 that indicates accountability steps. Add SIP and Stay Put definitions, Assembly Area Leader responsibilities, and reason and purpose for Accountability Add SAFE-4 notification
STO-PLAN-010, R2.1	8/22/12	Minor	Update the instructions for SIP in the BEP with the verbiage that can be found in P1201-4 Replace Duty Officer Pager 664-3865 with 664-4444
STO-PLAN-010, R2.1-EXT1	3/7/13	Extension	Allow preparer time to review and update.
STO-PLAN-010, R2.1	6/4/13	Annual Review, No Change	Annual Review, No Change

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1.0 PURPOSE

This facility-specific Building Emergency Plan, (BEP), in addition to P1201-4, *LANL Emergency Procedures and Protective Actions,* describes the steps for accountability, the emergency response actions for responding to abnormal conditions and emergency situations in the SIGMA and Beryllium Technology Facility (BTF) Complexes, which includes the following buildings:

TA-03-0035, Press Building; **TA-03-0066,** Sigma Building; **TA-03-0067,** Guard Station;
TA-03-0159, Thorium Storage Building; **TA-03-0169,** Warehouse; **TA-03-0451,** Office Building;
TA-03-0541, Unoccupied Structure;
TA-03-2132, Unoccupied Structure, **TA-03-0141**, BTF and **TA-03-0317**, BTF Storage.

2.0 SCOPE

This document applies to personnel, tenants, temporary occupants, visitors, and facility emergency workers responding to emergencies and other abnormal event within STO-Supported Facilities.

3.0 OVERVIEW

3.1 Fire Alarms

SIGMA

Buildings 0035, 0159, and 0169 do **not** have alarms or lights. Buildings 0035, 0159 and 0169 are not routinely occupied. A runner notifies tenants in these buildings to evacuate.

BTF

Workers in the beryllium areas of the BTF must

1. Discontinue operations and ***if safe to do so***, place operations in a safe configuration.
2. ***If safe to do so***, evacuate across the barrier bench.

If directed to do so

1. Doff outer layer of Personal Protective Equipment (PPE) and air sampling pump at the downdraft.
2. Proceed to the Assembly Area and remain separated from others in the area designated for potentially contaminated until released by an Industrial Hygiene representative.

If **not** directed to doff PPE

1. Go directly to the Assembly Area and remain separated from others in the area designated for potentially contaminated until released by an Industrial Hygiene representative.
3. Report any operation left in a hazardous mode.
4. Do **not** re-enter the building or your work area once you have exited.
5. Remain at the designated assembly/muster area for further instructions or until the "All Clear" (return to normal operations) signal is given by the Incident Commander or designee.

3.2 Ventilation Light Indicators P-100

SIGMA

The Ventilation Light Indicators located in building 0066, Room P-100 monitors the ventilation system **ONLY**, using light indicators. Before entering the room, check the status of the ventilation system. There is a sign next to the door way that provides the following information:

1. Two red lights lit:
   a. Indicates it is safe to enter and perform work
2. One red light lit;
   a. Indicates it is safe to enter, but no work can be done
3. If no red lights are lit, it is not safe to enter
   a. Notify your RLM **AND** the STO Duty Officer at **664-4444** (pager).

(Please be aware the red lights indicate that the fans are energized; the green lights indicate that the fans are de-energized.)(This system was put in place from a Maintenance point of view.)

NOTE: The room has 3 red lights and 3 green lights at the entrance. If all green lights are lit **DO NOT** enter the room. Follow step 3.

3.3 Oxygen Alarm

SIGMA
The Oxygen Monitor Alarm in building 0066, Room G105B is an audible (beeping tone). When the Oxygen Monitor Alarm activates, workers must

1. Evacuate the room.
2. Notify your RLM **AND** the STO Duty Officer at **664-4444** (pager).

3.4 Hydrogen Monitor Alarm

SIGMA
Hydrogen Monitor Alarms located in various areas of Building **0066** are low-level alarm and high-level alarms.

- The low-level alarm emits a pulsating beep and is set for 30% of the hydrogen lower explosive limit.
- The high-level alarm emits a continuous beep and is set for 60% of the lower explosive limit.

In the event a hydrogen alarm is activated, qualified workers in the vicinity must

1. Secure any torches in use, and discontinue the use of any ignition source (e.g., open flames, electrical switches, welding, grinding, spark producing operations).
2. Turn off the main gas line (oxygen and hydrogen).
3. Call your RLM **AND** the STO Duty Officer at **664-4444** (pager).

IF the condition persists or **NO** qualified workers are in the vicinity:

1. Evacuate the area and notify others in the area,

2. Close the doors and secure the area to prevent others to enter,
3. Call your RLM **AND** the STO Duty Officer at **664-4444** (pager).

3.5 Hydrogen Fluoride Sensors

SIGMA

In Building **0066** RM D106 there is a Hydrogen Fluoride sensor and (HF/F_2) alarm. The HF/F_2 sensors and alarm are inside the room and are both audible and visual. They are set to alarm as follows:

2ppm – Caution (Yellow light)

3ppm – Warning (Orange light)

4ppm – Alarm (Red light and horn)

Should the Hydrogen Fluoride Alarm activates, workers in the vicinity must

1. Evacuate the room.
2. Close the door.
3. Notify others in the vicinity.
4. Call the point of contact on the Hazardous Communications form posted on the door, your RLM **AND** the STO Duty Officer at **664-4444** (pager).
5. Alarm rest button is located on wall to left of door and should be pushed to see if Alarm sounds.
6. Do not enter the room until the alarm is no longer audible.

3.6 Ventilation Alarm

BTF

The Loss of Ventilation alarm at the BTF is a blue strobe light and a continuous ringing of an alarm bell. This alarm is activated if both of the main exhaust fans fail or if there is a loss of 50% or more of the supply air. Unless deactivated, the alarm will sound for 10 minutes.

When the Loss of Ventilation alarm is activated, personnel **must**:

1. Bring operations to a safe state as listed in the Integrated Work Document.
2. Evacuate all beryllium areas.
3. Assemble in the support zone at the barrier bench and await for further instructions
4. Notify your RLM **AND** the STO Duty Officer at **664-4444** (pager).
5. Await further instructions.

The Partial Loss of Ventilation Alarm at the BTF is indicated by a yellow strobe light (no siren). A planned partial shutdown of the ventilation system is **not** considered an emergency and an evacuation is **not** necessary. When a Partial Loss of Ventilation Alarm is indicated, workers in a yellow strobe area must

1. Bring beryllium operations to a safe state as listed in the IWD. All non-beryllium activities may continue.
2. Limit Be activities to areas where there is **not** a yellow strobe light.
3. Consult with the IH prior to entering an area with a yellow strobe light where Be operations were not secured.
4. Notify your RLM **AND** the STO Duty Officer at **664-4444** (pager).

3.7 Equipment-specific Ventilation Alarm

The Equipment-specific Ventilation Alarm at the BTF is a small red light with a horn placed at specific piece of equipment. When the Equipment-specific Ventilation Alarm activates, workers must

1. Immediately discontinue affected operations that generate airborne beryllium.
2. Place affected operations/equipment in a safe configuration. All other operations may continue.
3. Notify your RLM **AND** the STO Duty Officer at or **664-4444** (pager).
4. Await further instructions.

4.0 ACRONYMS

BEP	Building Emergency Plan
BTF	Beryllium Technology Facility
PPE	Personal Protective Equipment
RLM	Responsible Line Manager
STO	Science & Technology Operations
VTR	Vault Type Room

5.0 INSTRUCTIONS

5.1 Shelter-in-Place (SIP)

Some kinds of chemical/radiological accidents or violent terrorism events may make going outdoors dangerous. Leaving the area might take too long or put those trying to evacuate in harm's way. In such a case it may be safer to stay indoors than to go outside.

- If the ventilation system has a simple wall-mounted thermostat-controlled heat/cool system: turn off ventilation
- If there is a trained energized worker present with appropriate personal protective equipment: have him or her turn off the ventilation, otherwise workers must do the following:
    1. Cover vents with plastic sheeting and/or duct tape

Note: The ability to cover the ventilation with plastic and/or duct tape is dependent on facilities providing SIP Kits.

5.2 Shelter-in-Place Location

SIGMA

Assemble in the following location for each building:

- Buildings 0066 and 0451 proceed to the first floor hallway (S100), and
- Buildings 0035, 0067, 0159, and 0169 remain inside the building you are in and (if possible) congregate in an interior room, such as a building conference room or main hallway, in order to better account for personnel.

BTF

Assemble in the following location for each building:

- Bldg. **TA-03-0141**, BTF
    - Room 127, report to the conference room without going outside if possible.
    - Room 120, report to the break room

- Bldg. **TA-03-0317**, this building is considered outside, personnel **should** go to the nearest building (BTF) for shelter.

NOTE: Workers in Rooms 126 and 137 must go through a stand-alone door to get from Room 120 without going outside.

5.3 Stay-Put

Stay-put, is the protective action used during non-hazardous material abnormal events. Examples of these events are wild land fire, a terrorism event, or inclement weather. This protective action calls for personnel to move or remain indoors but not confined to a specific area or room.

5.4 Assembly Areas

The Assembly Area for the SIGMA is listed here and shown on Figure 1.

TA-3-66 Assembly Area is located North-West of the Building and North of the field inside the security fence. The Assembly Area is organized by team and is designated by signs. Assemble in the appropriate location as designated by the signs.

The Assembly Area for BTF is listed here and shown on Figure 2.

The TA-3 141 Assembly Area is located East side of the building

5.5 Assembly Area Leader

1. Identify oneself upon arrival to assembly area.
2. Performs an informal headcount of evacuees present at assembly area.
3. Question all persons gathered at assembly area about personnel accountability and if anyone is missing.
4. Gather information (such as – smoke, pool of water, person down, medical emergencies, strange odors, etc.) obtained during a sweep of the building or buildings from everyone present at the assembly area.
5. Report information gathered to the Facility Leader or Incident Command.
6. Make notifications to SAFE-4 of Vault/Vault Type Room (VTR) that could potentially have remained open and unsecure.
    - For normal working hours contact SAFE-4: 667-5886
    - For non-working hours contact Associate Director Security and Safeguards (ADSS) on-call
        - (cell) 699-4094
        - (pager) 949-0156

5.6 Accountability

Accounting for all persons after emergency evacuation is essential. Anyone who has knowledge of any worker(s) inside a building needs to inform the emergency responders (e.g., fire department, EO-EM).

The object of accountability is to ensure that search, rescue, and assistance efforts can be initiated promptly to help provide for the safety of facility personnel who may be injured, trapped, or unaware of the emergency condition.

5.7 Primary Response to Discovery of an Abnormal Event or Condition

Before all else, a worker who discovers an abnormal condition or event must ensure his own safety and then the safety of others. If the worker thinks a building evacuation is necessary, the individual should pull the Fire Alarm to alert others to exit the building. Upon leaving the building, the worker should call 911 to

report the type of emergency (for example, chemical spill) to the 911 operator before they arrive on-scene and make notifications to 667-6211 for Emergency Management. If it is not possible to use a telephone, the worker should communicate to the Assembly Area Leader why the Fire Alarm was activated before the Emergency Responders arrives on scene.

Remember, activate the Fire Alarm whenever you need an immediate evacuation from a building, whether there is a fire or not.

6.0 REFERENCE

P1201-4, *LANL Emergency Procedures and Protective Actions*

Figure 1

SIGMA Assembly Area

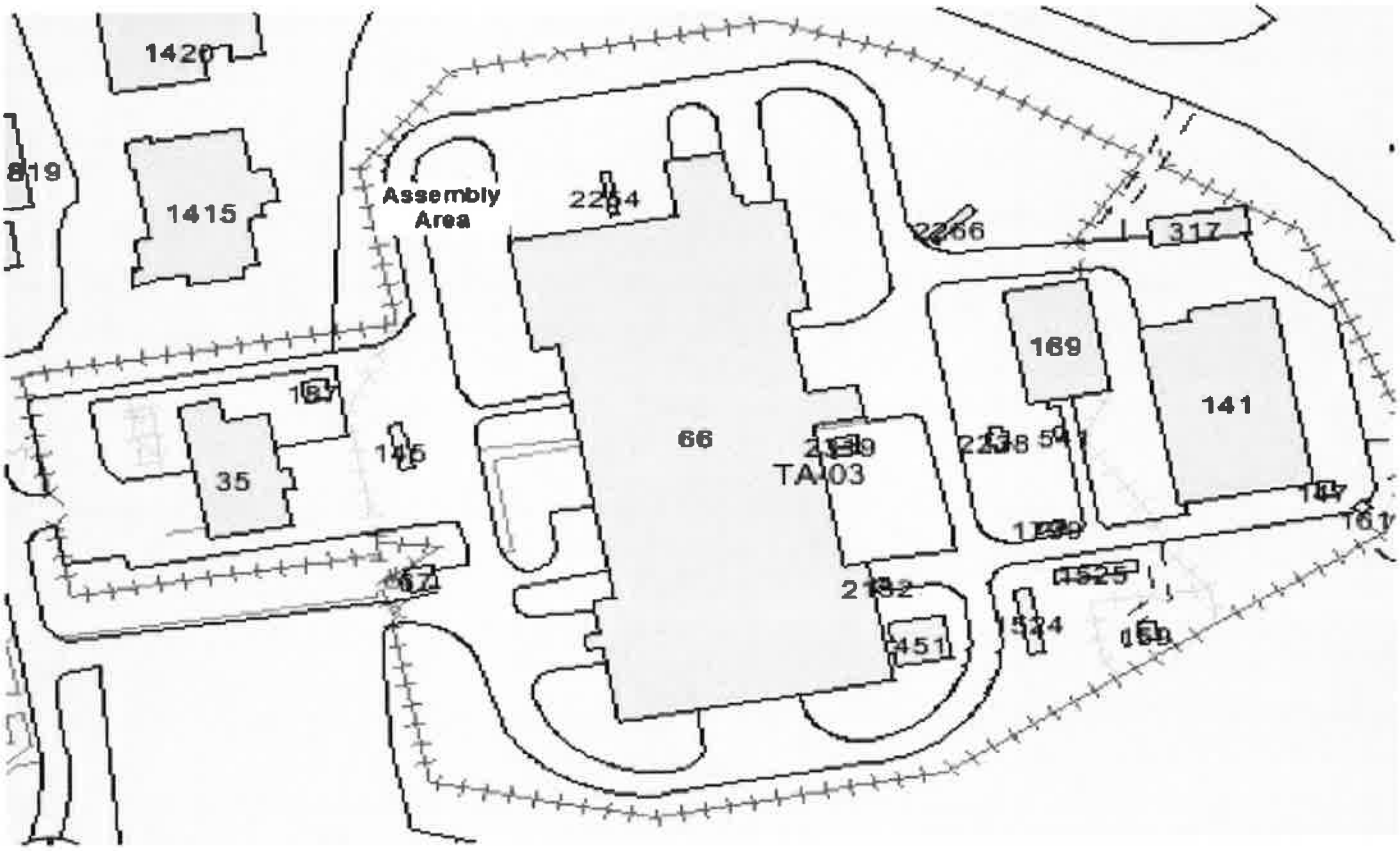


Figure 2

BTF Assembly Area

