

# LA-UR-22-20529

Approved for public release; distribution is unlimited.

**Title:** MSGP Stormwater Pollution Prevention Plan TA-60-01 Heavy Equipment Shop

**Author(s):** Wheeler, Holly Lynn  
Knight, Jacob Lamar

**Intended for:** Environmental Regulatory Document  
**Issued:** 2022-01-21



Los Alamos National Laboratory, an affirmative action/equal opportunity employer, is operated by Triad National Security, LLC for the National Nuclear Security Administration of U.S. Department of Energy under contract 89233218CNA000001. By approving this article, the publisher recognizes that the U.S. Government retains nonexclusive, royalty-free license to publish or reproduce the published form of this contribution, or to allow others to do so, for U.S. Government purposes. Los Alamos National Laboratory requests that the publisher identify this article as work performed under the auspices of the U.S. Department of Energy. Los Alamos National Laboratory strongly supports academic freedom and a researcher's right to publish; as an institution, however, the Laboratory does not endorse the viewpoint of a publication or guarantee its technical correctness.



# **MSGP Stormwater Pollution Prevention Plan**

## **TA-60-01 Heavy Equipment Shop**

Triad National Security, LLC  
Los Alamos National Laboratory

**January 2022**

**Revision 3**

---

Page intentionally blank

## TABLE OF CONTENTS

<b>PREFACE .....</b>	<b>6</b>
<b>1.0 FACILITY DESCRIPTION .....</b>	<b>7</b>
1.1 Facility Information .....	7
1.2 Stormwater Pollution Prevention Team (PPT).....	7
1.3 Site Description .....	9
1.4 General Location Map .....	10
<b>2.0 POTENTIAL POLLUTANT SOURCES .....</b>	<b>12</b>
2.1 Potential Pollutants Associated with Industrial Activity .....	12
2.2 Spills and Leaks.....	14
2.3 Unauthorized Non-Stormwater Discharges .....	16
2.4 Salt Storage .....	16
2.5 Historical Data Summary .....	16
<b>3.0 STORMWATER CONTROL MEASURES .....</b>	<b>17</b>
3.1 Non-Numeric Technology-Based Effluent Limits.....	17
3.1.1 Minimize Exposure.....	18
3.1.2 Good Housekeeping.....	19
3.1.3 Maintenance .....	20
3.1.4 Spill Prevention and Response.....	21
3.1.5 Erosion and Sediment Control .....	21
3.1.6 Management of Runoff.....	22
3.1.7 Salt Storage Piles or Piles Containing Salt.....	23
3.1.8 Dust Generation and Vehicle Tracking of Industrial Materials .....	23
3.2 Numeric Effluent Limitations Based on Effluent Limitations Guidelines.....	23
3.3 Water Quality-Based Effluent Limitations and Water Quality Standards .....	23
<b>4.0 SCHEDULES AND PROCEDURES.....</b>	<b>24</b>
4.1 Good Housekeeping .....	24
4.2 Maintenance .....	24
4.3 Spill Prevention and Response .....	24
4.4 Erosion and Sediment Control .....	24
4.5 Employee Training .....	24
4.6 Routine Facility Inspections and Quarterly Visual Assessments .....	25
4.6.1 Routine Facility Inspections .....	25

4.6.2	Quarterly Visual Assessments .....	26
<b>4.7</b>	<b>Monitoring .....</b>	<b>26</b>
<b>5.0</b>	<b>DOCUMENTATION FOR ELIGIBILITY CONSIDERATIONS UNDER OTHER FEDERAL LAWS</b>	<b>30</b>
<b>5.1</b>	<b>Endangered Species .....</b>	<b>30</b>
<b>5.2</b>	<b>Historic Properties .....</b>	<b>30</b>
<b>6.0</b>	<b>CORRECTIVE ACTIONS AND DEADLINES.....</b>	<b>31</b>
<b>6.1</b>	<b>Immediate Actions .....</b>	<b>32</b>
<b>6.2</b>	<b>Subsequent Actions .....</b>	<b>32</b>
<b>6.3</b>	<b>AIM Baseline Status and Triggering Events.....</b>	<b>32</b>
6.3.1	AIM Level 1 .....	32
6.3.2	AIM Level 2 .....	33
6.3.3	AIM Level 3 .....	33
6.3.4	AIM Exceptions .....	34
<b>6.4</b>	<b>Corrective Action and AIM Documentation.....</b>	<b>34</b>
<b>7.0</b>	<b>ACRONYMS .....</b>	<b>34</b>
<b>8.0</b>	<b>SWPPP CERTIFICATION.....</b>	<b>36</b>
<b>FIGURE A: GENERAL LOCATION MAP .....</b>		<b>37</b>
<b>FIGURE B-1: FACILITY SITE MAP .....</b>		<b>38</b>
<b>FIGURE B-2: RECEIVING WATERS MAP .....</b>		<b>39</b>
<b>FIGURE B-3: LANL ENDANGERED SPECIES MAP .....</b>		<b>40</b>
Attachment 1:	<b>NOTICE OF INTENT, SUPPORTING DOCUMENTATION, AND UPDATES .....</b>	<b>41</b>
Attachment 2:	<b>SWPPP AMENDMENTS.....</b>	<b>42</b>
Attachment 3:	<b>CERTIFICATION OF NO UNAUTHORIZED STORMWATER DISCHARGES .....</b>	<b>43</b>
Attachment 4:	<b>DULY AUTHORIZED SIGNATORY MEMORANDUM .....</b>	<b>44</b>
Attachment 5:	<b>DISCHARGE MONITORING REPORTS .....</b>	<b>45</b>
Attachment 6:	<b>ANNUAL REPORTS .....</b>	<b>46</b>
Attachment 7:	<b>ROUTINE FACILITY INSPECTIONS .....</b>	<b>47</b>
Attachment 8:	<b>QUARTERLY VISUAL ASSESSMENTS.....</b>	<b>48</b>

Attachment 9:	<b>CORRECTIVE ACTION DOCUMENTATION AND CERTIFICATION .....</b>	<b>49</b>
Attachment 10:	<b>SCHEDULED MAINTENANCE LOG .....</b>	<b>50</b>
Attachment 11:	<b>TRAINING DOCUMENTATION.....</b>	<b>52</b>
Attachment 12:	<b>MSGP (OR ACTIVE URL).....</b>	<b>53</b>
Attachment 13:	<b>THREATENED AND ENDANGERED SPECIES HABITAT MANAGEMENT PLAN FOR LOS ALAMOS NATIONAL LABORATORY .....</b>	<b>54</b>
Attachment 14:	<b>MSGP IPAC TRUST RESOURCES REPORT .....</b>	<b>55</b>
Attachment 15:	<b>EPC-CP-PIP-2101, NPDES MULTI-SECTOR GENERAL PERMIT .....</b>	<b>56</b>
Attachment 16:	<b>EPC-CP-QP-2108, MSGP ROUTINE FACILITY INSPECTIONS .....</b>	<b>57</b>
Attachment 17:	<b>EPC-CP-QP-022, MSGP CORRECTIVE ACTIONS .....</b>	<b>58</b>
Attachment 18:	<b>EPC-CP-QP-2105, MSGP STORMWATER VISUAL ASSESSMENTS .....</b>	<b>59</b>
Attachment 19:	<b>EPC-CP-TP-2103, INSPECTING ISCO STORMWATER RUNOFF SAMPLERS AND RETRIEVING SAMPLES .....</b>	<b>60</b>
Attachment 20:	<b>EPC-CP-QP-2106, PROCESSING MSGP STORMWATER SAMPLES .....</b>	<b>61</b>
Attachment 21:	<b>EPC-CP-QP-0903, ENVIRONMENTAL REPORTING REQUIREMENTS FOR RELEASES OR EVENTS .....</b>	<b>62</b>
Attachment 22:	<b>EPC-CP-QP-1007, SPILL INVESTIGATIONS .....</b>	<b>63</b>
Attachment 23:	<b>EPC-CP-QP-2110, MSGP STORMWATER POLLUTION PREVENTION PLAN PREPARATION AND MAINTENANCE .....</b>	<b>64</b>
Attachment 24:	<b>TA60-01 HEAVY EQUIPMENT SHOP OIL/WATER SEPARATOR (TA60-313) OPERATIONS AND MAINTENANE MANUAL .....</b>	<b>65</b>
Attachment 25:	<b>SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN FOR THE LOG- HERG REFUELING TRUCKS .....</b>	<b>66</b>

## TA-60-01 Heavy Equipment Shop STORMWATER POLLUTION PREVENTION PLAN

### PREFACE

This Stormwater Pollution Prevention Plan (SWPPP) was developed in accordance with the provisions of the Clean Water Act (33 U.S.C. §§1251 et seq., as amended), and the *United States Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP)* (U.S. EPA, January 2021) issued by EPA. The SWPPP uses the industry specific permit requirements for *Sector P – Land Transportation & Warehousing, and Sector AA Fabricated Metal Products* as a guide. The applicable stormwater discharge permit is EPA General Permit Tracing Number NMR050013 MSGP 2021 [Triad National Security, LLC (Triad)]. Click here to view contents of the [2021 Multi-Sector General Permit](#).

This SWPPP applies to discharges of stormwater from the operational areas of the TA-60-01 Heavy Equipment Shop at Los Alamos National Laboratory. Los Alamos National Laboratory (also referred to as LANL or the “Laboratory”) is owned by the Department of Energy (DOE), and is operated by Triad. Throughout this document, the term “facility” refers to the TA-60-01 Heavy Equipment Yard (HEY). The current MSGP expires at midnight on February 28, 2026.

## 1.0 FACILITY DESCRIPTION

### 1.1 Facility Information

Name of Facility: TA-60-01 Heavy Equipment Shop		
Street: Intersection of Eniwetok Drive and Maniac Road		
City: Los Alamos	State: NM	ZIP Code: 87545
County: Los Alamos		
NPDES ID (i.e., permit tracking number): NMR050013 MSGP 2021		
Primary Industrial Activity SIC code, and Sector and Subsector (2021 MSGP, Appendix D and Part 8); SIC Code 4212, Sector P, Subsector P1; and SIC Code 3499; Sector AA, Subsector AA1		
Estimated area of industrial activity at site exposed to stormwater: 7.3 acres		
<b>Discharge Information</b>		
Name(s) of surface water(s)/segment that receives stormwater from your facility: Sandia Canyon (Sigma Canyon to NPDES outfall 001)		
Does this facility discharge industrial stormwater directly into any segment of an "impaired water" (see definition in 2021 MSGP, Appendix A)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Pollutants causing the impairment: Total recoverable Aluminum, PCB (Aroclors), and dissolved Copper.		
Pollutants causing the impairment (see above) that may be present in industrial stormwater discharges from this Facility: Aluminum and Copper		
Are any of your stormwater discharges subject to effluent limitation guidelines (ELGs) (2021 MSGP Table 1-1)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If Yes, which guidelines apply? Not applicable.		

### 1.2 Stormwater Pollution Prevention Team (PPT)

The Stormwater PPT for the TA-60-01 HEY consists of operations and management personnel from the Utilities and Institutional Facilities (UI) Facilities Operations Division (FOD), operations and management personnel from the Logistics Division (LOG-DIV), the facility, a representative from Environmental Protection and Compliance-Compliance Program (EPC-CP), and a DEP. The EPC-CP representative is responsible for subject matter expertise to ensure Laboratory compliance under the NPDES permit regulations. The team members are selected on the basis of their familiarity with the activities at the facility and the potential impacts of those activities on stormwater runoff. The specific duties of individual team members of the PPT are listed in the table below.

Personnel Titles	Individual Responsibilities
<b>Deployed Environmental Professionals (Primary and Backup)</b>	Responsible for the support and oversight of all environmental programs and issues for the yards, buildings and facilities listed within this Plan. The DEP is responsible for training, recordkeeping, and SWPPP revision. The DEP ensures documentation of inspections and other required MSGP records relative to the SWPPP are managed in

EPC-CP, Environmental Professional	accordance with the Permit and established document control procedures and that the SWPPP is kept current. The DEP provides technical and regulatory support and regularly communicates with facility and operations personnel and the PPT regarding implementation of the MSGP and this SWPPP. Lastly, the DEP conducts routine facility inspections and if necessary, visual assessments, in accordance with the Permit. Identified conditions requiring corrective actions from routine facility inspections are entered into the EPC-CP Corrective Action Report (CAR) database. The DEP is responsible for tracking and updating the status of corrective actions that cannot be implemented immediately. The DEP is also responsible for immediately and timely communication to appropriate facility and operations management personnel to ensure that they are aware of non-compliant issues within the MSGP boundary of the facility and that they understand immediate action is required to correct the non-compliance.
<b>FOD Manager/Representative:</b>  IF-Operations, Operations Managers (or designees)	Responsible for managing the maintenance and operation of all aspects of the yards, buildings and facilities listed within this Plan. These managers/representatives shall provide review and ensure coordination with core personnel and the PPT, as appropriate, when tenants within the IF FOD propose a new process, or new site or operation that may be subject to the MSGP. These managers/representatives are key to ensuring adequate communication and coordination of issues regarding implementation of the MSGP and this SWPPP.
<b>LOG-DIV Manager/Representative:</b>  Operations Managers (or designees)	Responsible for managing the maintenance and operation of all aspects of the yards, buildings and facilities listed within this Plan. The Operations Manager shall provide review and ensure coordination with core personnel and the PPT, as appropriate, when tenants within the UI FOD propose a new process, or new site or operation that may be subject to the MSGP. The Operations Manager is key to ensuring adequate communication and coordination of issues regarding implementation of the MSGP and this Plan.
<b>EPC-CP Core:</b>  MSGP Program Lead, Environmental Professional	The MSGP Program Lead is responsible for managing and administering the MSGP Program for all industrial facilities operated by Triad within Los Alamos National Laboratory. The MSGP Program Lead advises and provides guidance to facility or operations personnel on NPDES MSGP regulations/requirements. The Program Lead also acts as the institutional point of contact for all interactions with the regulatory authority (EPA) and supervises personnel implementing stormwater monitoring requirements for the facility.



<b>Managers/Superintendents:</b>  Heavy Equipment Shop Superintendent, LOG-HERG  Fleet Manager, LOG-HERG  Heavy Equipment Laborer Foreman, LOG-HERG	Responsible for day-to-day operations at the facility. The superintendent/manager/foreman, assist the DEP and EPC with inspections; spill reporting; implementing, installing and maintaining storm water controls (also known as Best Management Practices) (BMPs); and providing documentation as requested by other team members. The superintendent/manager/foreman are key to ensuring adequate communication and coordination of issues regarding implementation of the MSGP and this Plan. The superintendent/manager/foreman are also assist the DEP/EPC with SWPPP training and/or briefings, as requested. Responsible for ensuring corrective actions are implemented and completed.
---	---

### 1.3 Site Description

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

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

Vehicle maintenance is performed inside the repair bays. Outdoor activities consist of material handling, vehicle and equipment staging, the transfer and storage of oil/used oil and other chemical products for vehicle maintenance and refueling. The upper lot of the facility contains various storage buildings, parking for vehicles and equipment awaiting repairs, ATVs, air compressors, containers, material racks, secondary containment units for oils, antifreeze, cleaners and a waste accumulation area. There are several satellite accumulation areas within and two used oil storage areas outside TA-60-1. One used oil storage area and one New Mexico special waste storage area are outside. The refueling trucks for the laboratory are staged in the upper lot and are covered by a Spill Prevention Control and Countermeasure (SPCC) Plan (see Attachment 25).

There is a vehicle steam cleaning pad located east of the north bay that discharges directly to a trench drain. The trench drain is connected to an oil/water separator (OWS) that discharges to the Sanitary Wastewater System (SWWS).

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

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

### Outfalls

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

#### **Outfalls 021 & 22**

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

#### **Outfall 023**

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

#### **Outfall 024**

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

#### **Outfall 025**

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

### **1.4 General Location Map**

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

#### **Site Map**

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

- **Site boundaries and acreage.** The site covers approximately 7.3 acres.
- **Significant structures and impervious surfaces.** The site is 75% impervious, primarily due to structures and paved lots.
- **Direction of stormwater flow and site drainage.** Direction of flow is indicated with arrows.
- **Locations of structural stormwater control measures.**

- **Locations of all receiving waters.** Stormwater from this facility discharges to Sandia Canyon impaired waters. There is not TMDL for Sandia Canyon. A map of nearby receiving waters is provided as Figure B-2.
- **Locations of all stormwater conveyances.** This includes all ditches, pipes, and swales.
- **Locations of potential pollutant sources.**
- **Locations of significant spills or leaks.**
- **Locations of all stormwater monitoring points.**
- **Locations of stormwater inlets and outfalls.**
- This facility is not currently associated with a municipal separate storm sewer system (MS4).
- **Areas of designated critical habitat for endangered or threatened species.** There are no areas in the direct vicinity of the facility. However, a map for threatened and endangered species within LANL property is included as Figure B-3.
- There are no non-stormwater discharges at the facility (see certification in Attachment 3)
- Locations of the following activities where such activities are exposed to precipitation:
  - fueling stations (none, however, refueling trucks are kept on site);
  - vehicle and equipment maintenance and/or cleaning areas;
  - loading/unloading areas;
  - locations used for the treatment, storage, or disposal of wastes;
  - liquid storage tanks;
  - processing and storage areas;
  - immediate access roads used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility;
  - transfer areas for substances in bulk;
  - machinery; and
  - locations and sources of run-on to the site.

## 2.0 POTENTIAL POLLUTANT SOURCES

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

In general, materials stored in outside locations at the TA-60-01 HEY have secondary containment units, are stored in enclosed sheds or structures, or are covered with tarps. The trench drain on the east side of the lower shops discharges to an oil/water separator (OWS) which prevents oil discharge to the environment. Micro-Blaze® and oil absorbent materials are kept on hand to clean up spills immediately should they occur. The primary industrial activities that could be exposed to stormwater (and associated pollutants) are provided below and in the site map listed in Figure B-1.

### 2.1 Potential Pollutants Associated with Industrial Activity

#### Upper Lot

##### **Covered Bulk Transfer Area with Secondary Containment**

This area is outdoors adjacent to the bottom (north) shop. The area contains four polyethylene (poly) secondary containment basins that hold drums of antifreeze, diesel exhaust fluid, diesel fuel, and window washing fluid. The poly basins are contained within a concrete secondary containment unit, which has the capability to discharge to the trench drain and oil/water separator.

*Potential pollutants include antifreeze, diesel exhaust fluid/fuel, window washing fluid, oil, and heavy metals.*

##### **Product Oil Storage Area**

This area is located next to the oil fill transformer (southeast corner of the building). *Potential pollutants include product oil and heavy metals.*

##### **NM Special Waste Storage Area (Site ID# 2266)**

The New Mexico special waste storage area is located outdoors in the mid-section of the upper east lot. This area consists of several 55-gallon steel drums sitting on wooden pallets. The drums are used to store waste oil mixed with soil or oil-dry product used during cleanup of oil leaks in or around the shop. *Potential pollutants include used oil/mixed oil, petroleum contaminated media and heavy metals.*

##### **Oil Filled Transformer**

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

##### **Empty 55-gallon drum storage area**

This drum storage area is located adjacent to the NM special waste storage area. The drums previously contained fluids for vehicle maintenance and are eventually recycled.

*Potential pollutants include petroleum product residues, oils, hydraulic fluid, diesel exhaust fluid, antifreeze, window washing fluid and heavy metals.*

##### **Used Oil Storage Areas**

There are two used oil storage areas at the TA-60 HEY. These include a 500-gallon poly tank at the northeast side of the building, which serves the bottom shops; and a 500-gallon metal tank at the southeast side of the building, which serves the upper shops. Used oil is pumped from the shops into the tanks. The poly tank is contained within a concrete secondary containment unit and the metal tank has built in secondary containment. *Potential pollutants include used oil/oily water and heavy metals.*

### **Drum Storage at Upper Shop**

There is a drum storage area located southeast of the building outside of upper shops. This storage area contains 55-gallon steel/poly product drums of new motor oil, hydraulic fluid, and window washing fluid. The area is on asphalt and protected by a secondary containment berm, which contains a locked discharge valve. *Potential pollutants include petroleum products, oils, hydraulic fluid, diesel exhaust fluid, antifreeze, window washing fluid and heavy metals.*

### **Refueling Trucks, Heavy and Small Equipment**

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

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

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

### **Filter Crusher**

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

### **Oil/Water Separator**

The oil/water separator is located northeast of the building and is used to separate oil from water prior to discharge to SWWS. *Potential pollutant sources include sediment/solids, oil and heavy metals.*

**Note:** This system is not designed to treat or separate fuel from water.

### **Vehicle and Small Equipment Parking**

Vehicle and small equipment parking occurs in the upper west lot. This area consists of parking for personally owned vehicles, government vehicles and small equipment such as portable lighting units, compressors and generators. General parking is located directly west of Building 60-01 and parking for the Taxi service is located to the southwest of the building. *Potential pollutants include leaks of petroleum products, oils, hydraulic fluid, antifreeze, gasoline/fuels and heavy metals.*

### **Heavy Equipment Parking and Lower Repair Bay**

The lower repair bay is located on the northwest section of the building and heavy equipment parking/staging is directly west of the bay on an unpaved area. *Potential pollutants include leaks of petroleum products, oils, hydraulic fluid, antifreeze, gasoline/fuels and heavy metals.*

### **Metal Fabrication Area and Parts Rack**

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

### **Roll-Off Bin for Tires**

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

#### **Lower Lot**

##### **Miscellaneous Heavy Equipment Parts and Metal Storage**

Miscellaneous heavy equipment parts and raw metal for fabrication is stored throughout the lower east lot. Storage consists of heavy equipment buckets, blades, sheet metal, metal associated with crane operations, and various other parts. *Potential pollutants include heavy metals, hydraulic oil, and machine oil residuals.*

##### **TA-60-117 Paint Storage Shed**

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

##### **Metal and Wood Roll-Off Bins for Recycle**

The metal and wood roll off bins for recycle are located in the northwest corner of the lower east lot. 30 cubic yard recycle bins are used to store scrap metal and wood until the bins are picked up by the LANL Material Recycling Facility (MRF). The bins are typically emptied on a weekly basis. *Potential pollutants include heavy metals, machine oil residuals, wood shavings, wood treatment chemicals/residues.*

##### **Miscellaneous Craft Storage Sheds**

Several storage sheds are in the lower east lot and are used to store a variety of materials for craft workers. TA-60-129 is used to store spill clean-up material and small equipment parts. *Potential pollutants include roofing material, debris, heavy metals, etc.*

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

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

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

## **2.2 Spills and Leaks**

Spills and leaks that occurred after March 1, 2021, the issuance date of the 2021 MSGP, are summarized below. Future Spills and leaks will be documented as corrective actions and tracked.

Date	Description	Corrective Action Description	Outfall(s) Affected
8/23/21	While refueling a LANL truck in the designated refueling area approx. 1 cup of fuel splashed onto the asphalt (this has occurred previously as well).	Absorbent was disposed of and micro-blaze was applied. Crews will utilize spill pads or other controls more pro-actively instead of responding to fuel spillage on asphalt.	None
9/17/21	During efforts to calibrate deicer sprayers on ATVs an abnormal amount drained onto pavement and soil in the lower east yard at the heavy equipment shop.	Sweep the pavement and when calibrating the deicer sprayers take efforts to minimize spills of the material. The material was swept with the sweeper truck at 2:30 pm 9/17/2021	None
12/9/21	At the NE corner of TA-60-1, there is an area on the concrete apron that has deteriorated and has formed a depression. Water was present in the depression that had an oil sheen on it.	Oil absorbent pads were applied to the sheen at 2:40 pm. Sheen was verified removed morning of 12/10/2021. An existing FSR is in place to fix the concrete and install a new berm.	None
12/9/21	On the east side of TA-60-1, outside of the battery shed, three batteries were being stored outside of the shed and were leaking.	The batteries were placed in the shed, materials used to absorb the spill were disposed of and the acid was neutralized.	None

#### Areas on Site Where Potential Spills/Leaks Could Occur

LOCATION	OUTFALLS (see site map)
Upper Lot (See Section 2.1 for specific industrial activity areas)	021, 022, 024, 025
Lower Lot (See Section 2.1 for specific industrial activity areas)	023

In the event of any future spill or leak at any of the facility areas, a spill report, documenting the occurrence and the nature of the spill or leak, will be completed. The spill report will be filed promptly upon completion and documentation of the spill clean-up, and will be summarized in this section of the SWPPP. In addition, spills within MSGP facility boundaries will be entered as conditions requiring corrective action in the MSGP CAR database and will be updated as corrective action occurs, in accordance with EPC-CP-QP-022, *MSGP Corrective Actions*.

The probability of spills or releases at the facility is minimized by the application of good housekeeping procedures and appropriate operational methods. As this facility performs maintenance and repairs on heavy equipment and vehicles, there are spill protection clean-up materials readily available on site. Appropriate response measures for a spill or release of hazardous materials are followed when addressing spills. The specific spill response and cleanup procedures depend on the nature and amount

of the spilled material. Specific spill response and reporting procedures for LANL are listed in Section 3.1.4 of this SWPPP.

## 2.3 Unauthorized Non-Stormwater Discharges

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

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

## 2.4 Salt Storage

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

## 2.5 Historical Data Summary

### Permitted Facility: TA-60-01 Heavy Equipment Shop

Calendar Year 2021

Monitored Outfall	Discontinue Monitoring		Continue Monitoring						
			Benchmark Monitoring Status				Indicator parameter monitoring required annually for entirety of permit.	Impaired water constituent was detected. Continue monitoring annually.	Impaired water constituent monitoring required in year 4.
	Average of four monitoring values did not exceed benchmark; quarterly monitoring discontinued until year 4 per Section 4.2.2.3.	Impaired water constituent was not detected in storm water discharge; annual monitoring discontinued until year 4 per Section 4.2.5.1.	Baseline	AIM Level 1	AIM Level 2	AIM Level 3			
022	—	Total Aroclors	Al, Zn	NO <sub>3</sub> +NO <sub>2</sub> -N	—	—	COD, TSS, pH	Al, Cu	—

AIM=Additional Implementation Measures

Al=Aluminum

Zn=Zinc

NO<sub>3</sub>+NO<sub>2</sub>-N=Nitrate plus Nitrite Nitrogen

COD=Chemical Oxygen Demand

TSS=Total Suspended Solids

pH=Potential Hydrogen

Cu=Copper



### 3.0 STORMWATER CONTROL MEASURES

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

Proper material management and storage minimizes exposure of potential pollutants at the facility to precipitation. Containers that could be susceptible to spillage or leakage are plainly labeled (e.g., “Used Oil,” “Spent Solvents,” etc.). Vehicles or Heavy Equipment received for repair or maintenance at the shop are all inspected upon receipt to determine whether they are leaking. Vehicles or Heavy equipment that is leaking is moved inside a bay for repair or a drip pan is placed under it, monitored, and emptied once full, prior to a storm event, or when equipment is no longer leaking. Heavy equipment repair and maintenance is performed inside the repair bays. Most industrial operations are performed indoors, and materials are stored indoors or outdoors in enclosed structures. Adequate secondary containment is provided for outdoor storage areas containing potentially hazardous materials. BMPs are installed at all outfalls to manage stormwater runoff and sediments.

#### 3.1 Non-Numeric Technology-Based Effluent Limits

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

The following sector-specific non-numeric effluent limits are addressed at the TA-60-1 HEY and are listed by sector.

##### Sector P

##### Vehicle and Equipment Storage Areas

See sections 3.1.1 – 3.1.6 and 3.1.8 for specific controls in these areas.

##### Fueling Areas (Refueling)

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

##### Material Storage Areas

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

##### Vehicle and Equipment Cleaning Area

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

### **Vehicle and Equipment Maintenance**

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

### **Employee Training**

See section 4.5 for employee training requirements. In addition, per the SPCC Plan contained in Attachment 25, refueling personnel are trained to respond to an incidental spill. They are also trained to identify adjacent storm drains or other conveyances and to choose and install temporary BMPs if needed.

### **Sector AA**

### **Raw Steel Handling Storage**

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

### **Paints and Painting Equipment**

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

### **Metal Fabricating Areas**

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

### **Storage Areas for Raw Metal**

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

### **Metal Working Fluid Storage Areas**

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

### **Cleaners and Rinse Water**

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

### **Lubricating Oil and Hydraulic Fluid Operations**

All operations occur inside the shop bays.

### **Chemical Storage Areas**

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

### **Spills and Leaks**

See section 3.1.4 for specific spill prevention and response procedures.

#### **3.1.1 Minimize Exposure**

### **Covered and Enclosed Structures**

Industrial materials are kept inside the Heavy Equipment shop or enclosed storage sheds when possible.

### **Spill Control**

Industrial areas are frequently inspected for leaks and checked during monthly inspections. Oil absorbent and Micro-Blaze® is available in the Heavy Equipment Shop for immediate containment and clean-up if needed. Refueling trucks are equipped with spill kits.

### **Oil Water Separator**

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

### **Petro Barriers**

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

### **Secondary Containment Units**

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

### **Metal Storage Racks**

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

### **Covers for Trash Dumpsters and Recycle Bins**

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

#### **3.1.2 Good Housekeeping**

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

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

Per Part 2.1.2.2 of the 2021 MSGP, the following actions will be implemented to ensure good housekeeping.

- Sweep or vacuum at regular intervals or, alternatively, wash down the area and collect and/or treat, and properly dispose of the washdown water.

- Store material in appropriate containers.
- Keep all dumpster lids closed when not in use. For dumpsters and roll off boxes that do not have lids and could leak, ensure that discharges have a control (e.g., secondary containment). Consistent with Part 1.2.2, the permit does not authorize dry weather discharges from dumpsters or roll off boxes.
- Minimize the potential for waste, garbage and floatable debris to be discharged by keeping exposed areas free of such materials, or by intercepting them before they are discharged.

### 3.1.3 Maintenance

Control measures at the facility are kept in effective operating condition by the implementation of scheduled preventive maintenance (PM), standard operating procedures (SOPs), engineering guidance, and manufacturer's specifications as applicable. If control measures need to be replaced or repaired to maintain compliance with the 2021 MSGP, corrective action is taken in accordance with the timelines specified in the *Corrective Action and Deadlines* requirements of Section 6.0 of this SWPPP. If maintenance is needed in accordance with the PM schedule provided below, and/or in accordance with the operations and maintenance manual identified in Attachment 24, it is documented in the Scheduled Maintenance Log provided in Attachment 10.

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

**Note:** "All reasonable steps" means that the permittee has responded to the condition(s) triggering the action, such as, cleaning up any exposed material that may be discharged in a storm event (e.g., through sweeping, vacuuming) or making arrangements (i.e., scheduling) for a new stormwater control measure (SCM) to be installed. If a control measure was never installed, was installed incorrectly or not in accordance with Part 2 and/or 8 of the 2021 MSGP, or is not being properly operated or maintained, site personnel will conduct corrective action as specified in Part 5 of the 2021 MSGP.

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

#### **Trench Drain and Envirologix HQB OWS PM:**

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

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

**Petro Barriers PM:**

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

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

**3.1.4 Spill Prevention and Response**

Spills, leaks, or releases are minimized and prevented by the application of good housekeeping procedures, BMPs, and engineering/administrative controls. Containers that could be susceptible to spillage or leakage are plainly labeled (e.g., "Used Oil," "Spent Solvents," etc.) to encourage proper handling and facilitate rapid response if spills or leaks from these containers should occur. Spill cleanup materials are located inside TA-60-01 and spill kits are available on the refueling trucks, and are readily accessible to facility personnel in the event of a spill or leak.

In general, the approach to spill cleanup is to secure the spill area and contact the Heavy Equipment Shop Superintendent and/or the Emergency Management Division-Emergency Response (EMD-ER) Team (if necessary). For incidental releases, Micro-Blaze® or dry absorbents are used and the contaminated absorbents from spill clean-up are containerized and disposed of properly off-site.

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

Unauthorized releases or discharges within industrial facility boundaries are entered into the MSGP Corrective Action Reporting database in accordance with EPC-CP-QP-022, *MSGP Corrective Actions*. In addition, the completion of an Unplanned Release Report is required in the event of a spill. The report is submitted to EPC-CP personnel and handled according to internal spill record keeping procedures. Spills may be "reportable" (requiring external agency notification) depending on the nature of the spilled material and the location of the release. External agency notification may consist of verbal and/or written notification to the National Response Center, Environmental Protection Agency Region VI, or the NMED. EMD-ER, the FOD, and EPC-CP, in accordance with Laboratory and DOE policies and federal and state regulatory reporting requirements, will make the determination for the type of reporting required. EPC-DO-QP-101, *Environmental Reporting Requirements for Releases or Events* is used for this purpose (see Attachment 21).

Copies of internal spill reports are maintained by the responsible organization and in the EPC-CP database. The EPC-CP procedure for spill reporting and response, ENV-CP-QP-1007, *Spill Investigations*, can be found in Attachment 22 of this SWPPP.

**3.1.5 Erosion and Sediment Control**

100% of the outside surface area associated with the facility, contains structures or is paved with asphalt or concrete; therefore, erosion and sediment transport from the site itself is unlikely. BMPs are installed at outfalls to function as flow dissipation devices, which minimize the potential for erosion at facility discharge points.

#### **Stabilized Drainage Channels at Outfalls**

The primary drainage channel for Outfall 022 and 021 is stabilized with rip-rap and Turf Reinforcement Matting (TRM) to prevent erosion and minimize sedimentation in the channel. Outfall 023 is a grated storm drain that discharges to a corrugated metal culvert and rock-lined channel at the eastern facility boundary. Outfall 024 consists of an asphalt run-down and Outfall 025 contains a drainage channel reinforced with rock check dams.

#### **Gravel Bags/Eco-Bloks**

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

#### **3.1.6 Management of Runoff**

The majority of stormwater runoff from outdoor industrial areas at the facility is captured by one of the 5 outfalls and associated drainage areas. The outfalls typically consist of stabilized drainage channels or grated storm drains that discharge to culverts (see Section 1.3). Other specific run off controls are listed below.

#### **Metalloxx Wattles**

These wattles are used to filter out heavy metals in stormwater runoff. There are currently wattles located before discharge points at Outfall 021, 022, and within the rip rap swale leading to 022.

#### **Gravel Bags/Eco-Bloks**

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

#### **Asphalt Curb/Berm**

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

#### **Secondary Containment Units**

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

#### **Sediment Retention Basins**

- A basin is located at the northeast edge of the upper east lot. The basin is constructed of rip-rap and is used to allow sediments to settle out of stormwater before discharge to Outfall 022.
- A basin was installed in 2020 at north end (inlet side) of the rip rap channel that separates the upper and lower yards and discharges to Outfalls 022 and 021.

#### **Gabions**

Several gabion baskets are installed within the rip rap drainage leading to Outfalls 022 and 021 and serve as check dam structures and stabilization.

### **Petro Barriers**

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

### **Envirologix HQB Oil Water Separator**

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

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

#### **3.1.7 Salt Storage Piles or Piles Containing Salt**

See Section 2.4.

#### **3.1.8 Dust Generation and Vehicle Tracking of Industrial Materials**

Dust generation at the facility is minimal and dust suppression is not typically required. Items that are frequently removed from the facility primarily include heavy equipment and government vehicles, which are kept on paved parking areas or roadways; and Materials of Trade transported by craft workers to and from jobsites. Raw industrial materials are not transported to/from the site. Equipment brought in from other areas of the Laboratory may be covered in mud from recent storm events. These vehicles may track sediment onto the facility. Sweeping with a vacuum sweeper is performed and logged on Attachment 10.

### **3.2 Numeric Effluent Limitations Based on Effluent Limitations Guidelines**

The TA-60-01 Heavy Equipment Shop is classified under **Sector P- Land Transportation and Warehousing** and **Sector AA – Fabricated Metal Products** and does not meet the industrial category requirements for effluent monitoring listed in Part 2.1.3 (*Table 2-1 Applicable Effluent Limitations Guidelines*) of the 2021 MSGP.

### **3.3 Water Quality-Based Effluent Limitations and Water Quality Standards**

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

Stormwater from the TA-60-01 HEY discharges to Sandia Canyon. Certain stream reaches within Sandia Canyon are identified as impaired waters by the NMED Surface Water Quality Bureau (SWQB). According to the 2020-2022 State of NM Clean Water Act 303d/305b Integrated Report and Final List of Assessed Surface Waters, pollutants causing the impairment are listed as total recoverable Aluminum, PCB (Aroclors), and dissolved Copper. EPA has not yet approved or established TMDLs for Sandia Canyon.

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

## **4.0 SCHEDULES AND PROCEDURES**

Preventative maintenance of control measures used to comply with the Permit effluent limits can avoid situations that result in discharges to the environment. Part 6.2.5 of the 2021 MSGP specifies control measures will have a schedule or frequency for maintenance and procedures specifying how maintenance is conducted. Part 6.5 requires documentation of maintenance and repairs including the date(s) of regular maintenance. See Attachment 10 for the Scheduled Maintenance Log.

### **4.1 Good Housekeeping**

See Section 3.1.2 of this SWPPP.

### **4.2 Maintenance**

See Section 3.1.3 of this SWPPP.

### **4.3 Spill Prevention and Response**

See Section 3.1.4 of this SWPPP.

### **4.4 Erosion and Sediment Control**

See Section 3.1.5 of this SWPPP.

### **4.5 Employee Training**

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

Per Part 2.1.2.8 of the 2021 MSGP, training relevant to the SWPPP and MSGP is required for all workers at the facility that work in areas where industrial materials or activities are exposed to stormwater (MSGP sites); workers, managers, and supervisors who are responsible for implementing activities necessary to meet the conditions of this permit (e.g., inspectors, maintenance personnel); and all members of the PPT. Training is designed to ensure these personnel understand the MSGP and SWPPP requirements, as well as their specific responsibilities regarding these requirements.

Training provided and assigned to these personnel cover both the specific control measures used at the facility; along with monitoring, inspection, planning, reporting, and documentation requirements described in this SWPPP. Training will be conducted at least annually. The DEP, DESH Group Leader and Pollution Prevention Team members are responsible for ensuring all appropriate personnel receive this training.

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



use only (OUO). All training records will be managed in accordance with P204-1, Controlled Unclassified Information.

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

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

#### **4.6 Routine Facility Inspections and Quarterly Visual Assessments**

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

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

##### **4.6.1 Routine Facility Inspections**

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

Routine inspections evaluate the following areas, at a minimum:

- Areas where industrial materials or activities are exposed to stormwater;
- Areas identified in the SWPPP and those that are potential pollutant sources;
- Areas where spills and leaks have occurred in the last three years;
- Discharge points(outfalls/Substantially Identical Discharge Points (SIDPs)); and
- Control measures used to comply with the effluent limits contained in this permit.

Specific areas of the facility to be inspected are described in Section 2.1.

During routine inspections, the following must be evaluated:

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

Inspections performed by the PPT member are documented by completing the routine facility inspection form, which identifies all conditions requiring corrective action and other potential stormwater pollution issues that were encountered. All conditions requiring corrective actions identified during the inspection

are addressed in accordance with Section 6.0 *Corrective Actions and Deadlines* of this plan. Facility personnel or the DEP may also perform daily, weekly, or other periodic facility surveys (walk downs) between monthly routine inspections to ensure compliance with the SWPPP and MSGP. Completed routine facility inspection forms are provided in Attachment 7 of this SWPPP and meet the requirements listed in the 2021 MSGP (Part 3.1.2.).

#### 4.6.2 Quarterly Visual Assessments

Once each quarter (January-March, April-June, July-September, October-December) a stormwater sample is obtained and visual assessment performed at each outfall, if a measureable event occurred. A qualified member of the PPT (DEP, EPC-CP Storm Water Permitting/Compliance Team member or MSGP Program Lead) conducts the visual assessment. The visual assessment will be:

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

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

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

If a visual assessment is not conducted:

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

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

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

The PPT member performing the visual assessment documents potential stormwater pollution problems that are observed during the assessment on the quarterly visual assessment form. Any conditions requiring corrective actions identified during the assessment is addressed in accordance with Section 6.0 *Corrective Actions and Deadlines* of this plan. Completed quarterly visual assessments are provided in Attachment 8 of this SWPPP and meet the requirements listed in the 2021 MSGP (Part 3.2.2).

## 4.7 Monitoring

Analytical monitoring comprising Impaired Waters monitoring for industrial activity identified in Tables 1-1 and 4-1 of the 2021 MSGP is performed annually on stormwater discharges from the site.

Monitoring occurs when storm events result in an actual discharge from the site and follow the preceding measurable storm event by at least 72 hours (3 days), unless documented that the storm event is representative of local storm events during the sampling period. For runoff from snowmelt, the monitoring is performed at a time when a measurable discharge from the site occurs.

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

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

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

Outfalls 021, 023, 024 and 025 are “substantially identical” to Outfall 022 based on common potential pollutant sources, drainage areas, activities within the drainage areas and general site topography and characteristics. Outfall locations are shown on the site map provided in Figure B-1. For impaired waters pollutants, monitoring is required annually in the first and fourth year of permit coverage. If any pollutant associated with the impairment is detected, annual monitoring will continue. If the impaired water constituent value exceeds the New Mexico Water Quality criterion, the Pollution Prevention Team will:

- Review the selection, design, installation, and implementation of control measures to determine if modifications are necessary to meet the effluent limits,
- Implement the necessary modifications within the timeframe specified for corrective action, and
- Continue annual monitoring of the constituent (as required by Section 4.2.5 of the 2021 MSGP).

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

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

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

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

- EPC-CP-TP-2103, *Inspecting ISCO Stormwater Runoff Samplers and Retrieving Samples* (Attachment 19)
- EPC-CP-QP-2106, *Processing MSGP Stormwater Samples* (Attachment 20).

The table on the following page lists the current Summary of Monitoring Requirements. The monitoring values have been modified to reflect New Mexico water quality standards and are based on the most protective water quality standards from the Standards for Interstate and Intrastate Surface Waters (effective on February 28, 2018), 20.6.4.900 NMAC; and as set forth in Part 9.6.2.2 of the 2021 MSGP.

## 2022 Monitoring Year Requirements

### TA-60-1 Heavy Equipment Yard

Outfall	Monitoring Requirement	Industrial Sector	Assessment Unit	Analyte	Filtered/ Unfiltered	Regulatory Standard	Units	Regulatory Standard Type	Regulatory Standard Reference
022	Quarterly Benchmark	AA	—	Al	F10u <sup>1</sup>	1100	µg/L	Benchmark Limit	Part 8.AA.6
	Quarterly Benchmark	AA	—	NO3+NO2-N	UF	0.68	mg/L	Benchmark Limit	Part 8.AA.6
	Quarterly Benchmark	AA	—	Zn	F <sup>2</sup>	104	µg/L	NM 2010 Aquatic Acute 75 mg	20.6.4.900 NMAC Subpart I
	Impaired Waters	—	NM-9000.A_047	Al	F10u	N/A	µg/L	Report Only	Part 4.2.5.1
	Impaired Waters	—	NM-9000.A_047	Cu	F <sup>2</sup>	N/A	µg/L	Report Only	Part 4.2.5.1
	Indicator Parameter	P	—	COD	UF	N/A	mg/L	Report Only	Part 4.2.1.1
	Indicator Parameter	P	—	TSS	UF	N/A	mg/L	Report Only	Part 4.2.1.1
	Indicator Parameter	P	—	pH	UF	N/A	SU	Report Only	Part 4.2.1.1

<sup>1</sup>F10u - 10 µm filter

<sup>2</sup>F - 0.45 µm filter

N/A – Not applicable

Al=Aluminum

Cu=Copper

UF=Unfiltered

NO3+NO2-N=Nitrate plus Nitrite Nitrogen

Zn=Zinc

µg =microgram

mg=milligram

L=liter

MSGP=Multi-Sector General Permit

QBM=Quarterly Benchmark Monitoring

NM=New Mexico

NMAC=New Mexico Administrative Code

## 5.0 DOCUMENTATION FOR ELIGIBILITY CONSIDERATIONS UNDER OTHER FEDERAL LAWS

### 5.1 Endangered Species

The Final Site-Wide Environmental Impact Statement (EIS) for the Operation of Los Alamos National Laboratory (DOE/EIS-0380) was issued in May 2008, and a Record of Decision in September 2008. Stormwater issues and associated pollution prevention requirements and activities at LANL are analyzed in Chapters 4 and 5 of the 2008 Site-Wide EIS. These activities are integrated into environmental reviews on a project-specific level through LANL's Integrated Review Tool (IRT), which incorporates both the Excavation Permit (EX-ID) and Permit Requirements Identification (PR-ID) process. Stormwater issues are identified and pollution prevention activities are implemented during the design and construction phases of all LANL projects, and as part of facility operations, including routine maintenance. LANL staff monitors stormwater pollution prevention compliance at MSGP sites in accordance with Section 4.7 *Monitoring* of this plan. Corrective actions are taken as necessary as described in Section 6.0 *Corrective Actions and Deadlines* of this plan.

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

### 5.2 Historic Properties

In April 2021, 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 2021 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-3-38 Metals Fabrication Shop
- TA-09-0214 Metals Fabrication Shop
- TA-16 Stockpile Area
- 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

## 6.0 CORRECTIVE ACTIONS AND DEADLINES

When any of the following conditions occur or are detected during an inspection, Level 1, 2, or 3 additional implementation measures (AIM) monitoring or any other means, this SWPPP (e.g., sources of pollution; spill and leak procedures; non-stormwater discharges; the selection, design, installation and implementation of control measures) is reviewed and revised (as appropriate).

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

The purpose is to ensure effluent limits of the 2021 MSGP permit are met and pollutant discharges are minimized.

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

- Construction or a change in design, operation, or maintenance at the facility significantly changes the nature of pollutants discharged in stormwater from the facility, or significantly increases the quantity of pollutants discharged; or
- The average of 4 quarterly sampling results exceeds an applicable benchmark. If less than 4 benchmark samples have been taken, but the results are such that an exceedance of the 4 quarter average is mathematically certain (i.e., if the sum of quarterly sample results to date is more than 4 times the benchmark level) this is considered a benchmark exceedance, triggering this review (see Section 4.7); or
- If an impaired water constituent exceeds the NM Water Quality criterion (see Section 4.7).

If any of the AIM triggering events (i.e., an annual average exceeds an applicable benchmark threshold) in Parts 5.2.3, 5.2.4, or 5.2.5 occur, PPT members must follow the response procedures described in those parts. An annual average exceedance for a benchmark parameter can occur if:

- 1) The four-quarter annual average for a parameter exceeds the benchmark threshold, or
- 2) Fewer than four quarterly samples are collected, but a single sample or the sum of any sample results within the sampling year exceeds the benchmark threshold by more than four times for a parameter.

There are three AIM levels: AIM Level 1, Level 2, and Level 3. PPT members must respond, as required, to different AIM levels which prescribe sequential and increasingly robust responses when a benchmark exceedance occurs. The corresponding AIM level responses and deadlines described in Parts 5.2.3.1, 5.2.3.2, 5.2.4.1, 5.2.4.2, 5.2.5.1 and 5.2.5.2 must be followed unless the facility qualifies for an exception under Part 5.2.6.

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

## **6.1 Immediate Actions**

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

## **6.2 Subsequent Actions**

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

## **6.3 AIM Baseline Status and Triggering Events**

Once the facility is authorized to discharge under the MSGP, it is considered to be in a baseline status for all applicable benchmark parameters required by that facility to be monitored. If an AIM triggering event occurs, the facility may return directly to baseline status once the corresponding AIM-level response and conditions are met.

### **6.3.1 AIM Level 1**

When an annual average exceeds an applicable benchmark threshold, the PPT must immediately review the MSGP SWPPP and the selection, design, installation, and implementation of stormwater control measures to ensure the effectiveness of existing measures and determine if modifications are necessary to meet the benchmark threshold for the parameter that exceeded.

Note: An AIM triggering event is outfall and parameter specific.

After reviewing the SWPPP, additional measures, considering good engineering practices, will be implemented, that will reasonably be expected to bring the exceedance below the parameter's benchmark threshold.

Note: If it is determined that nothing further is required to bring the exceedance below the parameter's benchmark threshold for the next 12-month period, document this in the MSGP CAR database.

All modifications and additional control measures required in response to AIM Level 1 will be implemented within 14 days of identification of an AIM Level 1 exceedance. If doing so within 14 days is infeasible, documentation is entered into the MSGP CAR database as to why it is infeasible. Completion of the response must occur within 45 days.

Note: There is no provision in the 2021 MSGP for exceeding the 45-day time frame for response to AIM Level 1.

An additional four quarters of Benchmark monitoring will occur at the outfall where the parameter exceeded the benchmark threshold for AIM Level 1. This monitoring will begin no later than the next full quarter after all responses and deadlines required by AIM Level 1 have been completed. After four



quarters of monitoring, the parameter will either return to baseline (see Section 6.3) if it does not exceed the same benchmark threshold or, another annual average exceeds the benchmark threshold causing the facility to move to AIM Level 2

#### 6.3.2 AIM Level 2

When a second benchmark threshold exceedance occurs at an outfall, the PPT will review the SWPPP and implement additional pollution prevention/good housekeeping SCMs, (considering good engineering practices), beyond those implemented in response to AIM Level 1.

Additional control measures required in response to AIM Level 2 will be implemented within 14 days of identification of the AIM Level 2 exceedance. If it is feasible to implement a measure, but not within 14 days, facility personnel may take up to 45 days to implement the measure. In this case, documentation will be entered into the MSGP CAR database identifying why it was infeasible to implement the control measure within 14 days. EPA may grant an extension beyond 45 days, based on an appropriate demonstration by the operator.

An additional four quarters of benchmark monitoring will occur at the outfall where the parameter exceeded the benchmark threshold for AIM Level 2. This monitoring will begin no later than the next full quarter after all responses and deadlines required by AIM Level 2 have been completed. After four quarters of monitoring, the parameter will either return to baseline (see Section 6.3) if it does not exceed the same benchmark threshold or, the parameter continues to exceed the benchmark threshold causing the facility to move to AIM Level 3.

#### 6.3.3 AIM Level 3

When a third benchmark threshold exceedance occurs at an outfall, facility personnel will install structural source controls (e.g., permanent controls such as permanent cover, berms, and secondary containment), and/or treatment controls (e.g., sand filters, hydrodynamic separators, oil-water separators, retention ponds, and infiltration structures). The controls, treatment technologies, or treatment train installed will be appropriate for the pollutant that triggered AIM Level 3, will be sufficient to bring the exceedance below the benchmark threshold and, will be more rigorous than the SCMs implemented under AIM Level 2. These controls will be installed for the outfall that exceeded the benchmark threshold and SIDPs, unless monitoring of the SIDPs demonstrates AIM Level 3 requirements are not triggered at those discharge points.

A schedule for installing the structural source and/or treatment stormwater control measures will be identified and documented in the MSGP CAR database within 14 days. Control measures in response to AIM Level 3 will be installed within 60 days unless it is not feasible to install them within 60 days. In this case, up to 90 days can be taken provided justification identifying why it is infeasible to install the measure within 60 days is documented in the MSGP CAR database. EPA may grant an extension beyond 90 days, based on an appropriate demonstration by the operator.

An additional four quarters of benchmark monitoring will occur at the outfall where the parameter exceeded the benchmark threshold for AIM Level 3. This monitoring will begin no later than the next full quarter after all responses and deadlines required by AIM Level 3 have been completed. After four quarters of monitoring, the parameter will either return to baseline (see Section 6.3) if it does not exceed the same benchmark threshold or, the facility will remain in AIM Level 3 and EPA may require the facility to apply for an individual permit.

#### 6.3.4 AIM Exceptions

Any AIM Level exceedance may qualify for an exception from specific AIM requirements and continued benchmark monitoring after four quarters of monitoring, provided the requirements to demonstrate qualification of the exception are followed (see Parts 5.2.6.1 through 5.2.6.5 of the permit). These exceptions include the following for benchmark exceedances:

- 1) Solely attributable to natural background pollutant levels;
- 2) Due to run-on;
- 3) Due to an abnormal event;
- 4) Demonstrated to not result in an exceedance of facility-specific value using the national recommended water quality criteria in-lieu of the applicable MSGP benchmark threshold (for aluminum and copper benchmark parameters only); or
- 5) Demonstrated to not result in any exceedance of water quality standards.

**Note:** There are very specific and complicated documentation requirements and time frames that have to be met to qualify for any of these exceptions. Therefore, any demonstration to qualify for an exception will be coordinated through a representative of the EPC-CP Storm Water Permitting/Compliance Team.

#### 6.4 Corrective Action and AIM Documentation

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

Any AIM Level triggering event will conform to the requirements and time frames provided in Sections 6.3 and 6.3.1 through 6.3.4.

## 7.0 ACRONYMS

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

## 8.0 SWPPP CERTIFICATION

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

### CERTIFICATION STATEMENT

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

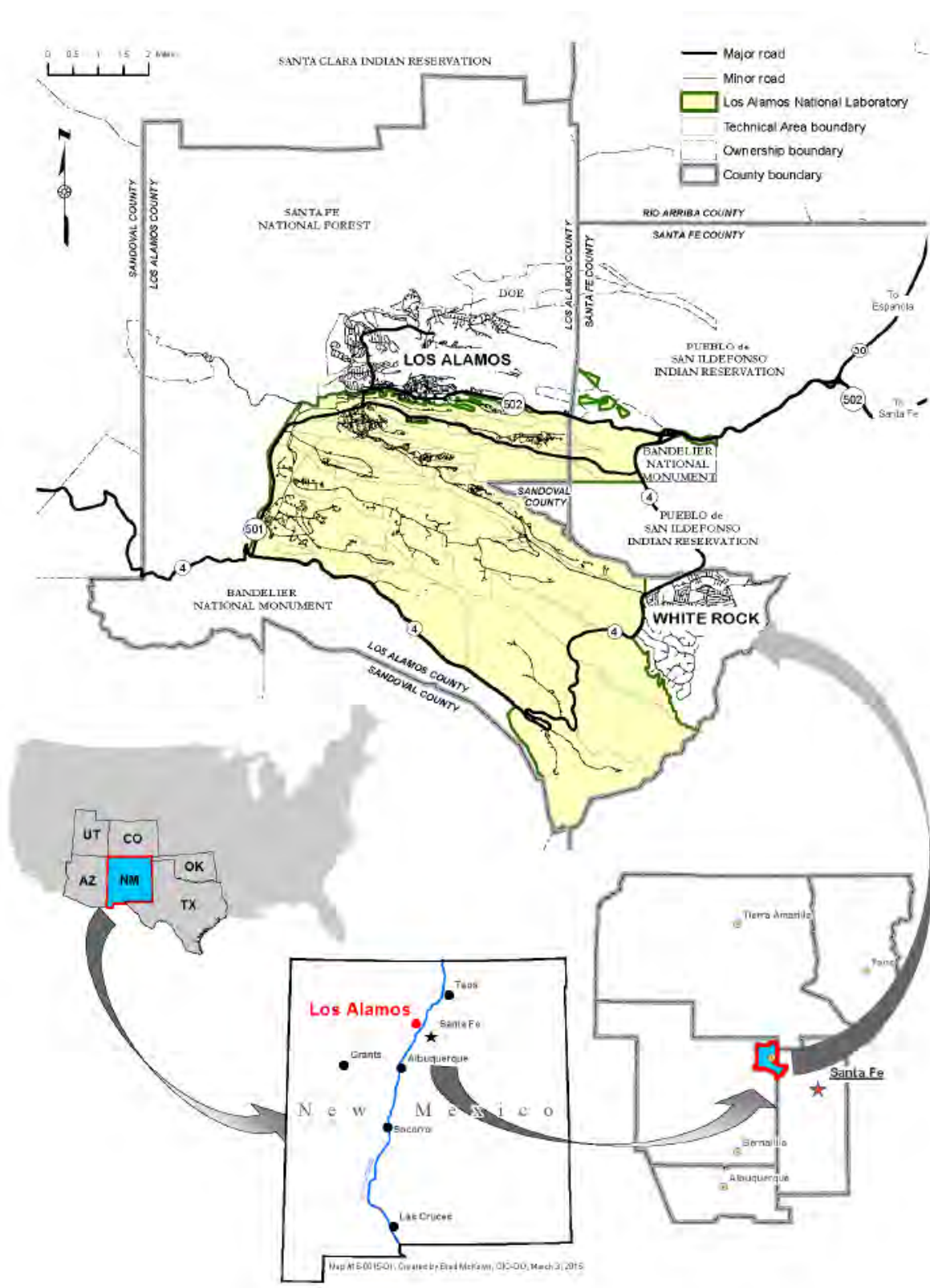
Signature BRIAN WATKINS (Affiliate) Digitally signed by BRIAN WATKINS (Affiliate)  
Date: 2022.01.18 10:07:11 -07'00'

Date 1/18/2022

**Brian Watkins**

LOG-DIV, Operations Manager 6

FIGURE A: GENERAL LOCATION MAP



Map(s)

**FIGURE B-1: FACILITY SITE MAP**



# TA-60-1 HEAVY EQUIPMENT YARD BMP SITE MAP

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

7.30 Acres, 75% Impervious Surface.  
Note - No Critical Habitat Areas.

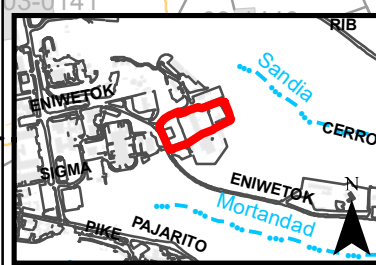
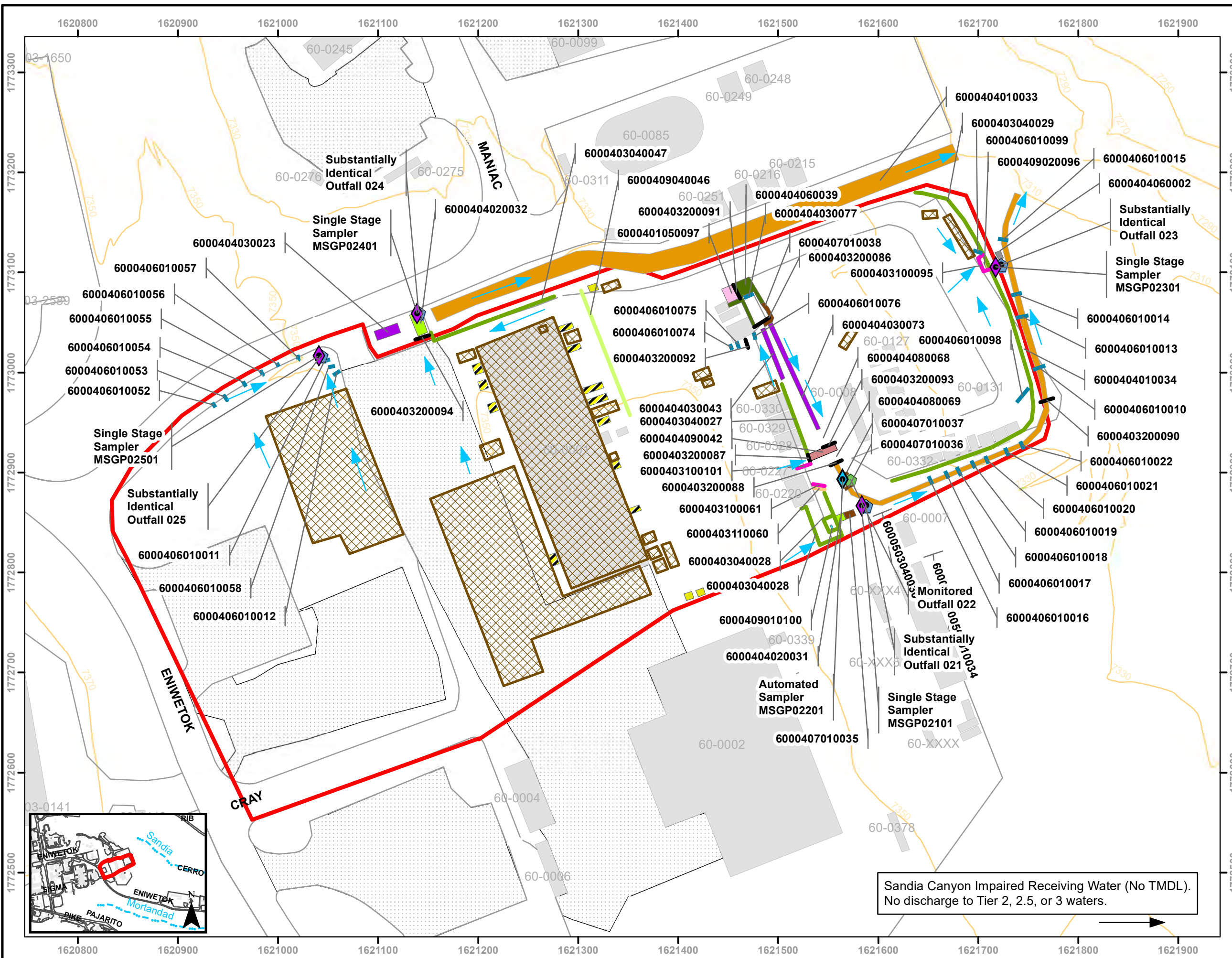
Map number: 16-0015-TA-60-1-Heavy  
Equipment Yard-BMP  
Map created by: Ben Sutter, IFPROG  
Updated: December 14, 2021  
Version 6

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

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



0 50 100 Feet





# TA-60-1 HEAVY EQUIPMENT YARD IAA SITE MAP

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

7.30 Acres, 75% Impervious Surface.  
Note - No Critical Habitat Areas.

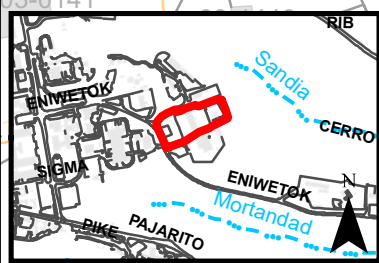
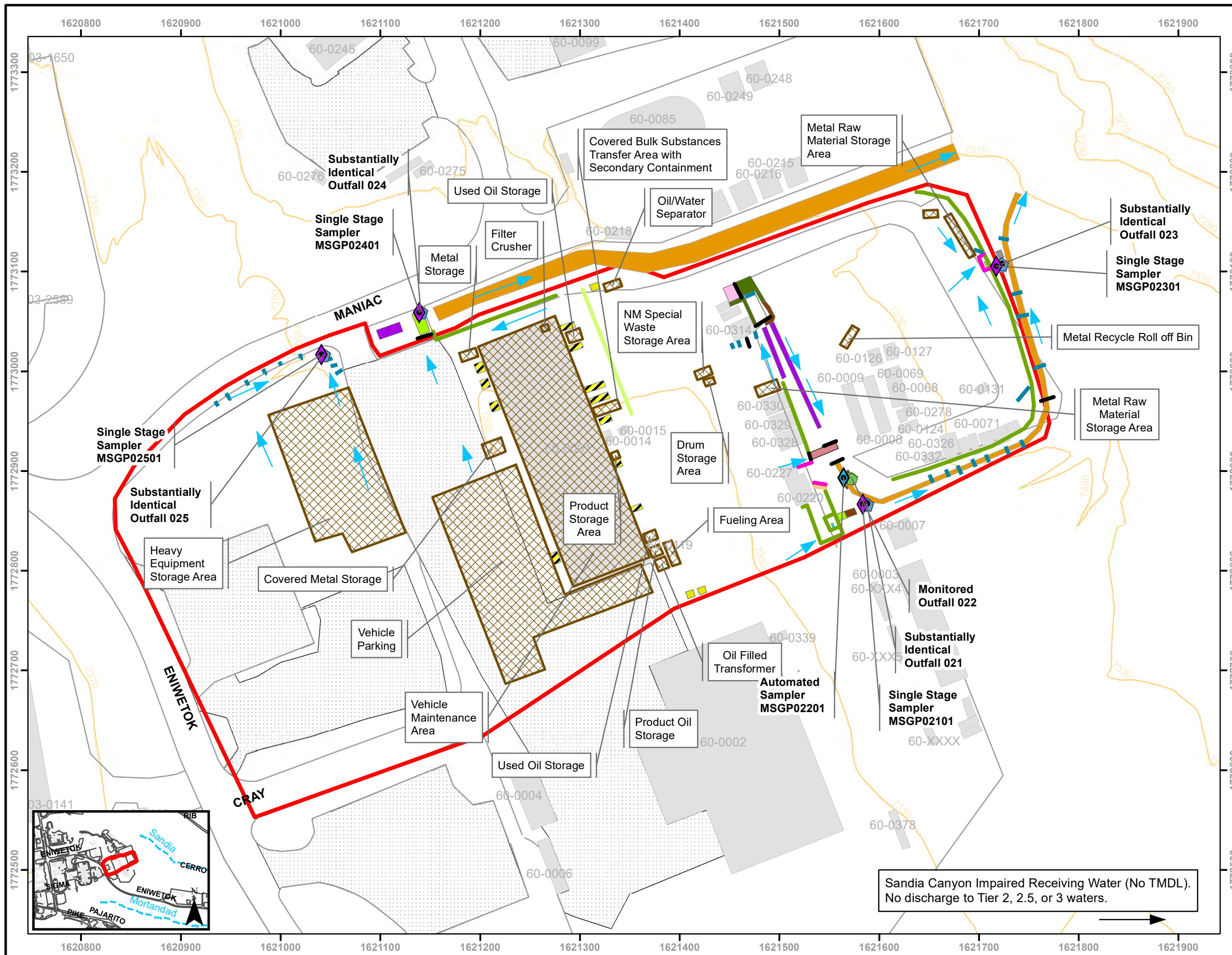
Map number: 16-0015-TA-60-1-Heavy  
Equipment Yard-IAA  
Map created by: Ben Sutter, IFPROG  
Updated: December 14, 2021  
Version 4

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

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

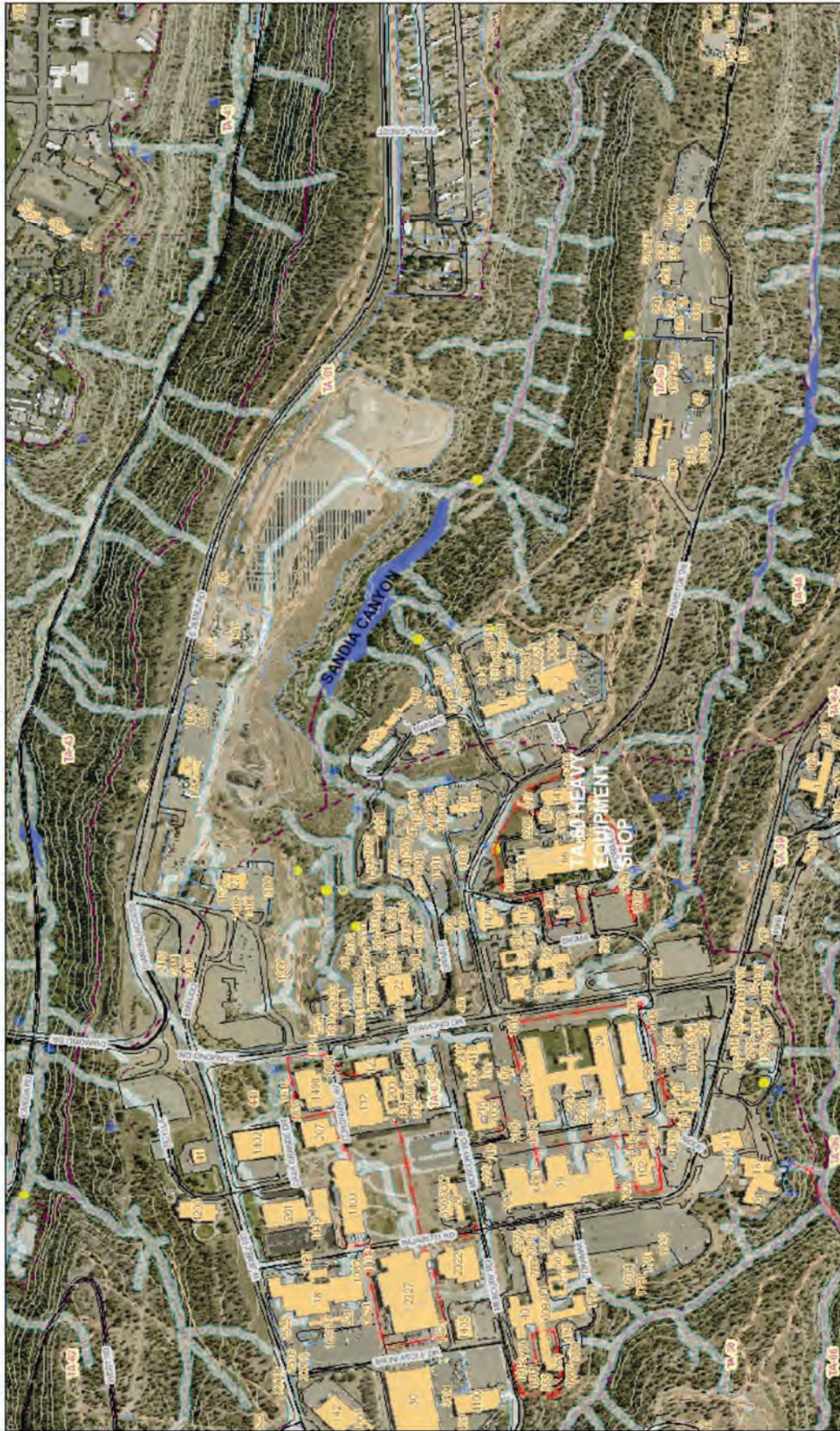


0 50 100 Feet





**FIGURE B-2: RECEIVING WATERS MAP**



**FIGURE B-3: LANL ENDANGERED SPECIES MAP**



# Endangered Species Habitat Within Los Alamos National Laboratory



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

**From:** [no-reply@epacdx.net](mailto:no-reply@epacdx.net)  
**To:** [no-reply@epacdx.net](mailto:no-reply@epacdx.net)  
**Subject:** [EXTERNAL] EPA Multi-Sector General Permit (MSGP) Authorization for: LOS ALAMOS NATIONAL LABORATORY - NPDES Number: NMR050013  
**Date:** Friday, June 25, 2021 4:00:27 PM  
**Attachments:** [ATT00001.png](#)

---



2021-06-25

The Environmental Protection Agency (EPA) has received a Notice of Intent (NOI) requesting coverage under the [EPA 2021 Multi-Sector General Permit](#) (2021 MSGP). A copy of the NOI can be found [here](#). The discharge authorization date for Triad National Security LLC to discharge stormwater and allowable non-stormwater associated with industrial activity at LOS ALAMOS NATIONAL LABORATORY located at PO BOX 1663, MS K490, LOS ALAMOS, NM 87545 under the 2021 MSGP is 06/25/2021. For tracking and inquiry purposes, your NPDES ID is NMR050013.

As you know, the 2021 MSGP requires that you develop a Stormwater Pollution Prevention Plan (SWPPP) prior to submitting your NOI. You should keep this email, along with any other correspondence with EPA, with your SWPPP at the facility as verification of coverage (see Part 6). All relevant provisions of the 2021 MSGP must be met, and any permit noncompliance constitutes a violation of the permit and the Clean Water Act (CWA).

The 2021 MSGP includes specific requirements for the implementation of stormwater control measures to minimize pollutant discharges and meet the permit's effluent limitations (e.g., minimizing exposure, good housekeeping, maintenance activities, spill prevention and response, employee training). The permit also requires conducting facility inspections and visual assessments of your discharges, and taking corrective actions and Additional Implementation Measures (AIM) as necessary. You must comply with any additional sector-specific requirements applicable to your industrial sector(s) in Part 8, any state-or tribal-specific requirements in Part 9, and any additional monitoring required by EPA pursuant to Part 4.2.6 (see <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities#msgp>).

You are also required to submit an Annual Report in accordance with Part 7.4 of the MSGP that will contain the results from your past calendar year's routine facility inspections, quarterly visual assessments, and corrective actions including any required AIM documentation. Annual Reports must be submitted to EPA by January 30th each year via EPA's NPDES e-Reporting Tool (NeT) which can be accessed at <https://npdes-ereporting.epa.gov/net-msgp>.

The 2021 MSGP includes six types of analytical monitoring, one or more of which will now apply to your discharges:

- Indicator monitoring (see Part 4.2.1 and Part 8);
- Benchmark monitoring (see Part 4.2.2 and Part 8);
- Effluent limitations guidelines monitoring (see Part 4.2.3 and Part 8);
- State- or tribal-specific monitoring (see Part 4.2.4 and Part 9);
- Impaired waters monitoring (see Part 4.2.5); and

- Other monitoring as required by EPA (see Part 4.2.6).

**You will receive a separate notification summarizing your monitoring and reporting requirements.**

Please note that this email only confirms the receipt of a complete NOI and does not represent a determination by EPA regarding the validity of the information you provided in your NOI. Your electronic signature on the NOI form certifies that you have correctly determined that you are eligible for coverage under this permit and the information is true, accurate, and complete to the best of your knowledge. Discharges are not authorized if your NOI is inaccurate or if you were never eligible for permit coverage.

If you have questions about this email or about NeT, please refer to the [NeT Help Center](#) or call 877-227-8965 or e-mail [NPDESreporting@epa.gov](mailto:NPDESreporting@epa.gov) for assistance.

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

**From:** [no-reply@epacdx.net](mailto:no-reply@epacdx.net)  
**To:** [no-reply@epacdx.net](mailto:no-reply@epacdx.net)  
**Subject:** [EXTERNAL] EPA NeT MSGP Coverage Status Change: Active; LOS ALAMOS NATIONAL LABORATORY - NPDES ID: NMR050013  
**Date:** Friday, June 25, 2021 4:00:27 PM

---

2021-06-25

Dear NeT User,

Coverage status has changed for a facility under the MSGP.

NPDES ID	Coverage Type	Coverage Status	Operator	Facility Name
NMR050013	General Permit	Active	Triad National Security LLC	LOS ALAMOS NATIONAL LABORATORY

A copy of the submission can be found [here](#).

You will be receiving a separate email providing the Operator's authorization to discharge under the 2021 MSGP.

If you have questions about this email or about the NPDES Electronic Reporting Tool (NeT), please refer to the [NeT Help Center](#) or e-mail [NPDESereporting@epa.gov](mailto:NPDESereporting@epa.gov) for assistance.

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



## Permit Information

Master Permit Number: NMR050000NPDES ID: NMR050013

## Eligibility Information

State/territory where your facility is discharging: NMDoes your facility discharge to federally recognized Indian Country lands? NoAre you a "Federal Operator" as defined in Appendix A ([https://www.epa.gov/sites/production/files/2021-01/documents/2021\\_msgp\\_-\\_appendix\\_a\\_-\\_definitions.pdf](https://www.epa.gov/sites/production/files/2021-01/documents/2021_msgp_-_appendix_a_-_definitions.pdf))?YesWhich type of form would you like to submit? Notice of Intent (NOI)

By indicating "Yes" below, I confirm that I understand that the MSGP only authorizes the stormwater discharges in Part 1.1.2 and the allowable non-stormwater discharges listed in Part 1.2.2. Any discharges not expressly authorized in this permit cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, state, or local authorities after issuance of this permit via any means, including the Notice of Intent (NOI) to be covered by the permit, the Stormwater Pollution Prevention Plan (SWPPP), during an inspection, etc. If any discharges requiring NPDES permit coverage other than the allowable stormwater and non-stormwater discharges listed in Parts 1.2.1. and 1.2.2. will be discharged, they must be covered under another NPDES permit.

YesAre you a new discharger or a new source as defined in Appendix A ([https://www.epa.gov/sites/production/files/2021-01/documents/2021\\_msgp\\_-\\_appendix\\_a\\_-\\_definitions.pdf](https://www.epa.gov/sites/production/files/2021-01/documents/2021_msgp_-_appendix_a_-_definitions.pdf))?No➔ Have stormwater discharges from your facility been covered previously under an NPDES permit? Yes

➔ If yes, provide your most current NPDES ID (i.e., permit tracking number) if you had coverage under EPA's MSGP or the NPDES permit number if you had coverage under an EPA individual permit:

NMR050013➔ Are you discharging to any waters of the U.S. that are designated by the state or tribal authority under its antidegradation policy as a Tier 3 water (Outstanding National Resource water)? (See Appendix L ([https://www.epa.gov/sites/production/files/2021-01/documents/2021\\_msgp\\_-\\_appendix\\_l\\_-\\_list\\_of\\_tier\\_3\\_tier\\_2\\_and\\_tier\\_2.5\\_waters.pdf](https://www.epa.gov/sites/production/files/2021-01/documents/2021_msgp_-_appendix_l_-_list_of_tier_3_tier_2_and_tier_2.5_waters.pdf)))NoDo you anticipate the discharge of groundwater or spring water from your facility? NoWhat is the legal name of the Operator as defined in Appendix A ([https://www.epa.gov/sites/production/files/2021-01/documents/2021\\_msgp\\_-\\_appendix\\_a\\_-\\_definitions.pdf](https://www.epa.gov/sites/production/files/2021-01/documents/2021_msgp_-_appendix_a_-_definitions.pdf))?Triad National Security LLCWhat is the name of your facility or activity as defined in Appendix A ([https://www.epa.gov/sites/production/files/2021-01/documents/2021\\_msgp\\_-\\_appendix\\_a\\_-\\_definitions.pdf](https://www.epa.gov/sites/production/files/2021-01/documents/2021_msgp_-_appendix_a_-_definitions.pdf))?LOS ALAMOS NATIONAL LABORATORY

## Operator Information

## Operator Information

**Operator Name:** Triad National Security LLC

## Operator Mailing Address

**Address Line 1:** PO Box 1663

**Address Line 2:** MS K490

**City:** Los Alamos

**ZIP/Postal Code:** 87545

**State:** NM

**County or Similar Division:** Los Alamos

## Operator Point of Contact Information

**First Name Middle Initial Last Name:** TERRILL . LEMKE

**Title:** Environmental Manager

**Phone:** 5056652397

**Ext.:**

**Email:** tlemke@lanl.gov

## NOI Preparer Information

☒ This NOI is being prepared by someone other than the certifier.

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

**Organization:** Triad National Security LLC

**Phone:** 505-667-1312

**Ext.:**

**Email:** hbenson@lanl.gov

## Facility Information

### Facility Information

**Facility Name:** LOS ALAMOS NATIONAL LABORATORY

### Facility Address

**Address Line 1:** PO BOX 1663

**Address Line 2:** MS K490

**City:** LOS ALAMOS

**ZIP/Postal Code:** 87545

**State:** NM

**County or Similar Division:** Los Alamos

### Latitude/Longitude for the Facility

**Latitude/Longitude:** 35.872777°N, 106.321127°W

**Latitude/Longitude Data Source:** GIS

**Horizontal Reference Datum:** WGS 84

## General Facility Information

What is the ownership type of the facility? Federal Facility (U.S. Government)

Estimated area of industrial activity at your facility exposed to stormwater (rounded to the nearest quarter acre): 39.75

Is your facility presently inactive and unstaffed? No

Exception for Inactive and Unstaffed Facilities: The requirement for indicator monitoring, impaired waters monitoring, and/or benchmark monitoring does not apply at a facility that is inactive and unstaffed, as long as there are no industrial materials or activities exposed to stormwater.

If circumstances change during the permit term that affect your qualifications for this exception to monitoring requirements (i.e. industrial materials or activities exposure to stormwater or your facility's active/inactive and staffed/unstaffed status) you must submit a NOI notifying EPA of the change in circumstances.

## Sector-Specific Information

Primary Sector: P

Primary Subsector: P1

Primary SIC Code: 4212

Co-Located Sectors:

Co-Located Sector: D

Co-Located Subsector: D1

Co-Located SIC Code: 2951

Co-Located Sector: N

Co-Located Subsector: N2

Co-Located SIC Code: 5093

Co-Located Sector: AA

Co-Located Subsector: AA1

Co-Located SIC Code: 3499

### Discharge Information

By indicating "Yes" below, I confirm that I understand that the MSGP only authorizes the stormwater discharges in Part 1.2.1 and the allowable non-stormwater discharges listed in Part 1.2.2. Any discharges not expressly authorized in this permit cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, state, or local authorities after issuance of this permit via any means, including the Notice of Intent (NOI) to be covered by the permit, the Stormwater Pollution Prevention Plan (SWPPP), during an inspection, etc. If any discharges requiring NPDES permit coverage other than the authorized stormwater and non-stormwater discharges listed in Parts 1.2.1 and 1.2.2 will be discharged, they must be covered under another NPDES permit.

Yes

## Federal Effluent Limitation Guidelines

Identify the Effluent Limitation Guideline(s) that apply to your stormwater discharges.

40 CFR Part/Subpart	Eligible Discharges	Affected MSGP Sector	New Source Date	Applicability
Part 443, Subpart A	Runoff from asphalt emulsion facilities	D	07/28/1975	Does your facility have any discharges subject to this effluent limitation guideline? <u>Yes</u>

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? Yes

## Other Discharge Information

Do you anticipate the discharge of groundwater or spring water from your facility? No

Does your facility discharge into a Municipal Separate Sewer System (MS4)? No

## Receiving Waters Information

List all of the stormwater discharge points from your facility.

### Discharge Point 023: TA-60-1 Heavy Equipment Yard SIO to 022

## Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212
<input checked="" type="checkbox"/>	AA - FABRICATED METAL PRODUCTS	AA1 - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499

Latitude/Longitude: 35.873193°N, 106.313116°W

☒ This discharge point is *Substantially Identical* to an existing discharge point.

➔ Substantially Identical to Discharge Point ID: 022

## Receiving Water

GNIS Name:

Waterbody Name:

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

Listed Water ID:

NM-9000.A\_047

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

## Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? Yes

➔ What is the hardness of your receiving water(s)? 61

(mg/L)

## Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 024: TA-60-1 Heavy Equipment Yard SIO to 022

### Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212
<input checked="" type="checkbox"/>	AA - FABRICATED METAL PRODUCTS	AA1 - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499

Latitude/Longitude: 35.873046°N, 106.315069°W

☒ This discharge point is *Substantially Identical* to an existing discharge point.

➔ Substantially Identical to Discharge Point ID: 022

### Receiving Water

GNIS Name:

Waterbody Name:

SANDIA CANYON (SIGMA CANYON TO  
NPDES OUTFALL 001)

Listed Water ID:

NM-9000.A\_047

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

## Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? Yes

➔ What is the hardness of your receiving water(s)? 61

(mg/L)

## Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 039: TA-60 Roads and Grounds

### Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212
<input type="checkbox"/>	AA - FABRICATED METAL PRODUCTS	AA1 - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499

Latitude/Longitude: 35.867826°N, 106.291726°W

☐ This discharge point is *Substantially Identical* to an existing discharge point.

## Receiving Water

GNIS Name:

Waterbody Name:

SANDIA CANYON (SIGMA CANYON TO  
NPDES OUTFALL 001)

Listed Water ID:

NM-9000.A\_047

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

## Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? No

## Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 032: TA-60 Roads and Grounds

## Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951

<input type="checkbox"/>	<b>N</b> - SCRAP RECYCLING FACILITIES	<b>N2</b> - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	<b>P</b> - LAND TRANSPORTATION AND WAREHOUSING	<b>P1</b> - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212
<input type="checkbox"/>	<b>AA</b> - FABRICATED METAL PRODUCTS	<b>AA1</b> - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499

Latitude/Longitude: 35.870741°N, 106.306812°W

☐ This discharge point is *Substantially Identical* to an existing discharge point.

## Receiving Water

GNIS Name:

Waterbody Name:

SANDIA CANYON (SIGMA CANYON TO  
NPDES OUTFALL 001)

Listed Water ID:

NM-9000.A\_047

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

## Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? No

## Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]

Has a TMDL been completed for this receiving waterbody? No



## Discharge Point 034: TA-60 Roads and Grounds SIO to 032

### Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212
<input type="checkbox"/>	AA - FABRICATED METAL PRODUCTS	AA1 - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499

Latitude/Longitude: 35.870603°N, 106.306055°W

☒ This discharge point is *Substantially Identical* to an existing discharge point.

➔ Substantially Identical to Discharge Point ID: 032

### Receiving Water

GNIS Name:

Waterbody Name:

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

Listed Water ID:

NM-9000.A\_047

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

### Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? No

### Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 028: TA-60-2 Warehouse SIO to 026

## Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212
<input type="checkbox"/>	AA - FABRICATED METAL PRODUCTS	AA1 - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499

Latitude/Longitude: 35.872505°N, 106.313542°W

☒ This discharge point is *Substantially Identical* to an existing discharge point.

➔ Substantially Identical to Discharge Point ID: 026

## Receiving Water

GNIS Name:

Waterbody Name:

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

Listed Water ID:

NM-9000.A\_047

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

## Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? No

## Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 035: TA-60 Roads and Grounds SIO to 032

### Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212
<input type="checkbox"/>	AA - FABRICATED METAL PRODUCTS	AA1 - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499

Latitude/Longitude: 35.870474°N, 106.305432°W

☒ This discharge point is *Substantially Identical* to an existing discharge point.

➔ Substantially Identical to Discharge Point ID: 032

### Receiving Water

GNIS Name:

Waterbody Name:

SANDIA CANYON (SIGMA CANYON TO  
NPDES OUTFALL 001)

Listed Water ID:

NM-9000.A\_047

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

## Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? No

## Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 043: TA-60 Asphalt Batch Plant

### Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input checked="" type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212
<input type="checkbox"/>	AA - FABRICATED METAL PRODUCTS	AA1 - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499

36.166667 Longitude -106.290165°W

☐ This discharge point is *Substantially Identical* to an existing discharge point.

## Receiving Water

GNIS Name:

Waterbody Name:

MORTANDAD CANYON (WITHIN LANL)

Listed Water ID:

NM-9000.A\_042

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

## Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? No

## Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
MERCURY	Mercury, total [as Hg]
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]
RADIATION	Alpha, gross adjusted

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 031: TA-60 Roads and Grounds

## Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

Sector	Subsector	SIC/Activity Code

<input type="checkbox"/>	<b>D</b> - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	<b>D1</b> - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	<b>N</b> - SCRAP RECYCLING FACILITIES	<b>N2</b> - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	<b>P</b> - LAND TRANSPORTATION AND WAREHOUSING	<b>P1</b> - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212
<input type="checkbox"/>	<b>AA</b> - FABRICATED METAL PRODUCTS	<b>AA1</b> - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499

**Latitude/Longitude:** 35.869227°N, 106.305685°W

☐ This discharge point is *Substantially Identical* to an existing discharge point.

## Receiving Water

**GNIS Name:**

**Waterbody Name:**

MORTANDAD CANYON (WITHIN LANL)

**Listed Water ID:**

NM-9000.A\_042

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

## Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? No

## Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
MERCURY	Mercury, total [as Hg]
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]
RADIATION	Alpha, gross adjusted

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 033: TA-60 Roads and Grounds SIO to 032

### Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212
<input type="checkbox"/>	AA - FABRICATED METAL PRODUCTS	AA1 - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499

Latitude/Longitude: 35.870712°N, 106.306443°W

☒ This discharge point is *Substantially Identical* to an existing discharge point.

➔ Substantially Identical to Discharge Point ID: 032

### Receiving Water

GNIS Name:

Waterbody Name:

SANDIA CANYON (SIGMA CANYON TO  
NPDES OUTFALL 001)

Listed Water ID:

NM-9000.A\_047

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

### Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? No

### Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 027: TA-60-2 Warehouse SIO to 026

## Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212
<input type="checkbox"/>	AA - FABRICATED METAL PRODUCTS	AA1 - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499

Latitude/Longitude: 35.872401°N, 106.313391°W

☒ This discharge point is *Substantially Identical* to an existing discharge point.

➔ Substantially Identical to Discharge Point ID: 026

## Receiving Water

GNIS Name:

Waterbody Name:

SANDIA CANYON (SIGMA CANYON TO  
NPDES OUTFALL 001)

Listed Water ID:

NM-9000.A\_047

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

## Benchmark Monitoring



Are you subject to benchmark monitoring requirements for a hardness-dependent metal? No

## Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 030: TA-60 Roads and Grounds SIO to 031

### Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212
<input type="checkbox"/>	AA - FABRICATED METAL PRODUCTS	AA1 - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499

Latitude/Longitude: 35.869325°N, 106.306926°W

☒ This discharge point is *Substantially Identical* to an existing discharge point.

➔ Substantially Identical to Discharge Point ID: 031

### Receiving Water

GNIS Name:

Waterbody Name:  
MORTANDAD CANYON (WITHIN LANL)

Listed Water ID:  
NM-9000.A\_042

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

## Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? No

## Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
MERCURY	Mercury, total [as Hg]
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]
RADIATION	Alpha, gross adjusted

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 029: TA-60 Metals Recycling Facility

### Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input checked="" type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212

<input type="checkbox"/>	<b>AA - FABRICATED METAL PRODUCTS</b>	<b>AA1</b> - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499
--------------------------	---------------------------------------	--	------

**Latitude/Longitude:** 35.873969°N, 106.313281°W

☐ This discharge point is *Substantially Identical* to an existing discharge point.

## Receiving Water

**GNIS Name:**

**Waterbody Name:**

SANDIA CANYON (SIGMA CANYON TO  
NPDES OUTFALL 001)

**Listed Water ID:**

NM-9000.A\_047

**Is this receiving water saltwater or freshwater?** Freshwater

**Is this receiving water 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)?**

No

**Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?**

No

## Benchmark Monitoring

**Are you subject to benchmark monitoring requirements for a hardness-dependent metal?** No

## Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]

**Has a TMDL been completed for this receiving waterbody?** No

## Discharge Point 075: TA-60-2 Warehouse

## Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212
<input type="checkbox"/>	AA - FABRICATED METAL PRODUCTS	AA1 - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499

Latitude/Longitude: 35.871154°N, 106.31294°W

☐ This discharge point is *Substantially Identical* to an existing discharge point.

## Receiving Water

GNIS Name:

Waterbody Name:

SANDIA CANYON (SIGMA CANYON TO  
NPDES OUTFALL 001)

Listed Water ID:

NM-9000.A\_047

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

## Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? No

## Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 021: TA-60-1 Heavy Equipment Yard SIO to 022

### Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212
<input checked="" type="checkbox"/>	AA - FABRICATED METAL PRODUCTS	AA1 - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499

Latitude/Longitude: 35.872514°N, 106.313562°W

☒ This discharge point is *Substantially Identical* to an existing discharge point.

➔ Substantially Identical to Discharge Point ID: 022

### Receiving Water

GNIS Name:

Waterbody Name:

SANDIA CANYON (SIGMA CANYON TO  
NPDES OUTFALL 001)

Listed Water ID:

NM-9000.A\_047

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

### Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? Yes

➔ What is the hardness of your receiving water(s)? 61


(mg/L)

### Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving

waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group 	Pollutant
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 042: TA-60 Roads and Grounds

### Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212
<input type="checkbox"/>	AA - FABRICATED METAL PRODUCTS	AA1 - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499

Latitude/Longitude: 35.867047°N, 106.289163°W

☐ This discharge point is *Substantially Identical* to an existing discharge point.

### Receiving Water

GNIS Name:

Waterbody Name:

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

Listed Water ID:

NM-9000.A\_047

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

## Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? No

## Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 022: TA-60-1 Heavy Equipment Yard

### Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212
<input checked="" type="checkbox"/>	AA - FABRICATED METAL PRODUCTS	AA1 - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499

Latitude/Longitude: 35.872661°N, 106.313691°W

☐ This discharge point is *Substantially Identical* to an existing discharge point.

### Receiving Water

GNIS Name:

Waterbody Name:

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

Listed Water ID:

NM-9000.A\_047

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

## Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? Yes

➔ What is the hardness of your receiving water(s)? 61  
(mg/L)

## Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 025: TA-60-1 Heavy Equipment Yard SIO to 022

## Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212



<input checked="" type="checkbox"/>	<b>AA - FABRICATED METAL PRODUCTS</b>	<b>AA1</b> - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499
-------------------------------------	---------------------------------------	--	------

Latitude/Longitude: 35.872928°N, 106.3154°W

☒ This discharge point is *Substantially Identical* to an existing discharge point.

➔ Substantially Identical to Discharge Point ID: 022

## Receiving Water

GNIS Name:

Waterbody Name:

SANDIA CANYON (SIGMA CANYON TO  
NPDES OUTFALL 001)

Listed Water ID:

NM-9000.A\_047

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

## Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? Yes

➔ What is the hardness of your receiving water(s)? 61  
(mg/L)

## Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 026: TA-60-2 Warehouse

### Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212
<input type="checkbox"/>	AA - FABRICATED METAL PRODUCTS	AA1 - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499

Latitude/Longitude: 35.872114°N, 106.313105°W

☐ This discharge point is *Substantially Identical* to an existing discharge point.

### Receiving Water

GNIS Name:

Waterbody Name:

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

Listed Water ID:

NM-9000.A\_047

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

### Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? No

### Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
---------------------------	-----------

POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 037: TA-60 Roads and Grounds

## Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212
<input type="checkbox"/>	AA - FABRICATED METAL PRODUCTS	AA1 - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499

Latitude/Longitude: 35.867859°N, 106.292992°W

☐ This discharge point is *Substantially Identical* to an existing discharge point.

## Receiving Water

GNIS Name:

Waterbody Name:

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

Listed Water ID:

NM-9000.A\_047

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

## Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? No

# Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 076: TA-3-38 Metals Fab Shop

### Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	AA - FABRICATED METAL PRODUCTS	AA1 - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499
<input type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212

Latitude/Longitude: 35.875851°N, 106.327924°W

☐ This discharge point is *Substantially Identical* to an existing discharge point.

### Receiving Water

GNIS Name:

Waterbody Name:

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

Listed Water ID:

NM-9000.A\_047

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

## Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? Yes

➔ What is the hardness of your receiving water(s)? 61

(mg/L)

## Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 077: TA-3-38 Metals Fab Shop

## Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	AA - FABRICATED METAL PRODUCTS	AA1 - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499
<input type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212

Latitude/Longitude: 35.869722°N, 106.300833°W

☐ This discharge point is *Substantially Identical* to an existing discharge point.

## Receiving Water

GNIS Name:

Waterbody Name:

SANDIA CANYON (SIGMA CANYON TO  
NPDES OUTFALL 001)

Listed Water ID:

NM-9000.A\_047

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

## Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? Yes

➔ What is the hardness of your receiving water(s)? 61

(mg/L)

## Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 078: TA-16 Stockpile Yard

## Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

			SIC/Activity
--	--	--	--------------

	Sector	Subsector	Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input type="checkbox"/>	AA - FABRICATED METAL PRODUCTS	AA1 - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499
<input checked="" type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212

Latitude/Longitude: 35.846944°N, 106.344722°W

☐ This discharge point is *Substantially Identical* to an existing discharge point.

## Receiving Water

GNIS Name:

Waterbody Name:

CAJON DE VALLE (BELOW LANL GAGE E256)

Listed Water ID:

NM-128.A\_01

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

## Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? No

## Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.

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

Cause of Impairment Group	Pollutant
RADIATION	Alpha, gross adjusted

Has a TMDL been completed for this receiving waterbody? No

## Discharge Point 079: TA-9-214 Metals Fabrication Shop

### Applicable Sectors

Select the Sectors/Subsector(s) that apply to this discharge point.

	Sector	Subsector	SIC/Activity Code
<input type="checkbox"/>	D - ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	D1 - Asphalt Paving and Roofing Materials	2951
<input type="checkbox"/>	N - SCRAP RECYCLING FACILITIES	N2 - Source-separated Recycling Facility	5093
<input checked="" type="checkbox"/>	AA - FABRICATED METAL PRODUCTS	AA1 - Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services; Jewelry, Silverware, and Plated Ware	3499
<input type="checkbox"/>	P - LAND TRANSPORTATION AND WAREHOUSING	P1 - Railroad Transportation; Local and Highway Passenger Transportation; Motor Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4212

Latitude/Longitude: 35.85678°N, 106.345631°W

☐ This discharge point is *Substantially Identical* to an existing discharge point.

### Receiving Water

GNIS Name:

Waterbody Name:

ARROYO DE LA DELFE (PAJARITO CANYON TO HEADWATERS)

Listed Water ID:

NM-128.A\_16

Is this receiving water saltwater or freshwater? Freshwater

Is this receiving water 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)?

No

Will you have stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?

No

### Benchmark Monitoring

Are you subject to benchmark monitoring requirements for a hardness-dependent metal? Yes

➔ What is the hardness of your receiving water(s)? 28

(mg/L)

### Impaired Waters Monitoring

NOTE: The information automatically populated in this section for determining if the receiving water is listed as impaired on the 303(d) list and in need of a TMDL, the cause(s) of the impairment if the receiving water is impaired on the CWA 303(d) list, if a TMDL has been completed for the receiving waterbody, and the TMDL ID and pollutants for which there is a TMDL may be outdated and inaccurate. It is recommended that you consult with your state's guidance for discharges into impaired waters to determine the correct pollutants and TMDLS and update the causes for the impairment and TMDL information accordingly.



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

Cause of Impairment Group	Pollutant
POLYCHLORINATED BIPHENYLS (PCBS)	Poly chlorinated biphenyls [PCBs]
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]
RADIATION	Alpha, gross adjusted

Has a TMDL been completed for this receiving waterbody? No

#### SWPPP Information

Has the SWPPP been prepared in advance of filing this NOI, as required? Yes

##### SWPPP Contact Information:

First Name Middle Initial Last Name: Holly . Wheeler

Phone: 5056671312 Ext.:

Email: hbenson@lanl.gov

##### SWPPP Availability:

Your current SWPPP or certain information from your SWPPP must be made available through one of the following three 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 ([https://www.epa.gov/sites/production/files/2021-01/documents/2021\\_msgp\\_-\\_appendix\\_a\\_-\\_definitions.pdf](https://www.epa.gov/sites/production/files/2021-01/documents/2021_msgp_-_appendix_a_-_definitions.pdf))) (such information may be redacted), but you must clearly identify those portions of the SWPPP that are being withheld from public access.**

☐ Option 1: Attach a current copy of your SWPPP to this NOI.

☒ Option 2: Maintain a Current Copy of your SWPPP on an Internet page (Universal Resource Locator or URL).

Provide the web address URL (e.g. <http://www.example.com>): <https://epr.lanl.gov>

☐ Option 3: Provide the following information from your SWPPP:

#### Endangered Species Protection Worksheet: Criterion D

The following questions will help you determine your eligibility under Part 1.1.4 of the permit with respect to protection of Endangered Species Act (ESA) species and critical habitat(s). Please refer to Appendix E ([https://www.epa.gov/sites/production/files/2021-01/documents/2021\\_msgp\\_-\\_appendix\\_e\\_-\\_procedures\\_relatig\\_to\\_endangered\\_species\\_protection.pdf](https://www.epa.gov/sites/production/files/2021-01/documents/2021_msgp_-_appendix_e_-_procedures_relatig_to_endangered_species_protection.pdf)) of the 2021 MSGP for important information regarding your obligations under this permit concerning ESA-protected species and critical habitat(s).

## Determine ESA Eligibility Criterion

Are your industrial activities already addressed in another operator's valid certification of eligibility for your "action area" under eligibility criteria A, C, D, or E of the 2021 MSGP?

No

**Has consultation between you, a Federal Agency, and the USFWS and/or the NMFS under section 7 of the Endangered Species Act (ESA) concluded?**

Consultations can be either formal or informal, and would have occurred only as a result of a separate federal action (e.g., during application for an individual wastewater discharge permit or the issuance of a wetlands dredge and fill permit), and the consultation must have addressed the effects of your industrial activity's discharges and discharge-related activities on ESA-listed species and/or critical habitat under the jurisdiction of USFWS and/or NMFS in your action area.

Yes

➔ **The result of the consultation was either:**

- i. A biological opinion and/or conference opinion that concludes that the action in question (taking into account the effects of your facility's discharges and discharge-related activities) is not likely to jeopardize the continued existence of ESA-listed species or result in the destruction or adverse modification of critical habitat. The biological opinion and/or conference opinion must have included the effects of your facility's discharges and discharge-related activities on all the listed species and critical habitat in your action area. To be eligible under (i), any reasonable and prudent measures specified in the incidental take statement must be implemented;
- ii. Written concurrence (e.g., letter of concurrence) from the applicable Service(s) with a finding that your facility's discharges and discharge-related activities are not likely to adversely affect ESA-listed species or critical habitat. The concurrence letter must have included the effects of your facility's discharges and discharge-related activities on all the ESA-listed species and/or critical habitat on your species list(s) acquired from the USFWS and/or the NMFS as part of this worksheet.

True

➔ **The consultation does not warrant reinitiation under 50 CFR §402.16; or, if reinitiation of consultation is required (e.g., due to a new species listing or critical habitat designation; new information), you have reinitiated the consultation and the result of the consultation is consistent with the statements above.**

True

You are eligible under **Criterion D**

**Identify the federal action agency(ies) involved:**




- ☒ U.S. Fish and Wildlife Services
- ☐ National Marine Fisheries Service

**Provide the field office/regional office(s) providing that consultation and any tracking numbers of identifiers associated with that consultation (e.g., IPaC number, ECO number):**

New Mexico Ecological Services Field Office, Cons. # 2-22-98-I-336, Cons. # 2-22-95-I-108, Cons. # 02ENNM00-2014-I-0014, Cons. # 02ENNM00-2015-I-0538

**Provide the date the consultation was completed:** 08/06/2015

**You must attach copies of any letters or other communications with the USFWS or NMFS:**

Name	Uploaded Date	Size
 1999 HMP Concurrence Letter USFWS to DOE.pdf (attachment/712061)	05/19/2021	276.65 KB
 2015-0538_USFWS Concurrence Letter_8-2015.pdf (attachment/712062)	05/19/2021	94.97 KB
 Concurrence_8DEC2013_Biological Assessment of Jemez Mtn Salamander site Plan (2).pdf (attachment/712063)	05/19/2021	239.87 KB

Historic Preservation: Criterion B

The following questions will help you determine your eligibility under Part 1.1.5 of the permit with respect to preservation of historic properties. You may still use the paper instructions in Appendix F ([https://www.epa.gov/sites/production/files/2021-01/documents/2021\\_msgp\\_-\\_appendix\\_f\\_-\\_procedures\\_relatig\\_to\\_historic\\_properties\\_preservation.pdf](https://www.epa.gov/sites/production/files/2021-01/documents/2021_msgp_-_appendix_f_-_procedures_relatig_to_historic_properties_preservation.pdf)) of the MSGP in advance or in conjunction with answering the questions in this section of the form. For more information about your State Historic Preservation Office (SHPO) or Tribal Historic Preservation Office (THPO), please visit the National Park Service (NPS) websites at:

- State Historic Preservation Office (SHPO) (<https://www.nps.gov/subjects/nationalregister/state-historic-preservation-offices.htm>)
- Tribal Historic Preservation Office (THPO) ([https://www.nps.gov/history/tribes/Tribal\\_Historic\\_Preservation\\_Officers\\_Program.htm](https://www.nps.gov/history/tribes/Tribal_Historic_Preservation_Officers_Program.htm))

Are you an existing facility that is resubmitting for certification under the 2021 MSGP? Yes

- ➔ If you are an existing facility you should have already addressed National Historic Preservation Act (NHPA) issues. To gain coverage under the 2015 MSGP, you were required to certify that you were either not affecting historic properties or had obtained written agreement from the relevant SHPO or THPO regarding methods of mitigating potential impacts.

Will you be constructing or installing any new stormwater control measures? Yes

- ➔ Will the stormwater control measures you are constructing or installing disturb subsurface less than one (1) acre? Yes

Have prior earth disturbances determined that historic properties do not exist, or have prior disturbances precluded the existence of historic properties?

Yes

You are eligible under **Criterion B**.

#### Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Signing an electronic document on behalf of another person is subject to criminal, civil, administrative, or other lawful action.

**Certified By:** Jennifer pay ne

**Certifier Title:** Division Leader

**Certifier Email:** jpay ne@lanl.gov

**Certified On:** 05/26/2021 5:41 PM ET



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

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

February 12, 1999

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

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

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

Dear Mr. Gurule:

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

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

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

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

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

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

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

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

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

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

David A. Gurule, Acting Area Manager

4

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

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

Sincerely,



Jennifer Fowler-Propst  
Field Supervisor

cc:

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



# United States Department of the Interior

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

December 9, 2013

Cons. #02ENNM00-2014-I-0014

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

Dear Mr. Beausoleil:

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

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



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

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

#### Fuels Management Practices to Reduce Wildfire Risk

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

#### Utility Corridors

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

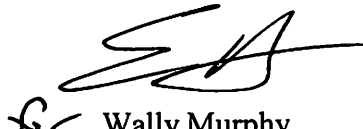
Habitat alterations other than the fuels management practices and utility corridor maintenance described above will not occur in undeveloped core areas under the guidelines of the Site Plan or this consultation. The Service concurs with DOE's determination regarding the salamander for the following reasons:

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

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

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

Sincerely,

  
Wally Murphy  
Field Supervisor

cc:

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



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

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



August 6, 2015

Cons. # 02ENNM00-2015-I-0538

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

Dear Ms. Lebak:

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

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

Kimberly Davis Lebak, Manager

2

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

Sincerely,

for Wally Murphy  
Field Supervisor

cc:

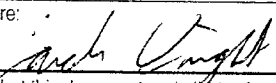
Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico

**Attachment 2: SWPPP AMENDMENTS**

<b>Date</b>	<b>Plan Section</b>	<b>Reason for Amendment</b>	<b>Amendment</b>
Jan 2019	All	New MSGP Plan for new Laboratory Contract.	New MSGP Plan for Triad, LLC (replacing LANS, LLC.
Feb 2020	All	Implementation of the new SWPPP template as required by EPC-CP-QP-2110, <i>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</i> . Also included all inspections, assessments and reports required for the yearly update.	Inserted new template language to standardize all MSGP SWPPPs and inserted all required documentation for the yearly revision.
Feb 2021	All	Included all inspections, assessments and reports required for the yearly update.	Inserted all required documentation for the yearly revision. Included new stormwater controls installed in 2020.
May 2021	All	The 2021 MSGP was published on January 15, 2021, and became effective on March 1, 2021. The new permit requires a SWPPP update.	Plan was revised to reflect new permit requirements.
January 2022	attachments	Included all inspections, assessments and reports required for the yearly update.	New procedures were added, new training briefing, all required reports added.

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

## Unauthorized Non-Storm Water Discharge Assessment and Certification

<b>Facility:</b>	TA-60-1 Heavy Equipment Yard		
<b>Outfalls (including SIOs*) or Other Onsite Drainage Points Observed During the Assessment</b>	<b>Identified Potential Sources of Unauthorized Non-Storm Water Discharge (if applicable)</b>	<b>Description of Assessment Criterion Used</b>	<b>Describe any Required Actions to Control or Eliminate the Discharge</b>
SIDP 021	None	Visual evaluation	None
SIDP 023	None	Visual evaluation	None
SIDP 024	None	Visual evaluation	None
Monitored Outfall 022	None	Visual evaluation	None
<b>Assessor:</b>			
Print Name:	Signature:	Title:	Date Assessed:
Jacob Knight		DEP	4/17/2021
<b>Authorized Signatory:</b> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.			
Print Name:	Signature:	Title:	Date Certified:
BRIAN WATKINS (Affiliate)		Digitally signed by BRIAN WATKINS (Affiliate) Date: 2021.05.19 11:53:07 -06'00'	

\*SIO = Substantially Identical Outfall

Attachment 4: **DULY AUTHORIZED SIGNATORY MEMORANDUM**





***Environmental Protection & Compliance  
Division***

Los Alamos National Laboratory  
PO Box 1663, K490  
Los Alamos, NM 87545  
505-667-0666

*Symbol:* EPC-DO: 18-453  
*LAUR:* 18-31574  
*Date:* **DEC 11 2018**

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

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

Dear Ms. Idsal:

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

The positions of Associate Laboratory Director of Environment, Safety, Health & Quality and Safeguards & Security (ESHQSS), and Division Leader of the Environmental Protection & Compliance Division (EPC-DO) are identified as Triad's primary signatory officials under 40 CFR 122.22(a) for certifying and signing permit applications (including Notice of Intent (NOIs)) required under the LANL NPDES Industrial Point Source Outfall Permit (Permit No. NM0028355), the NPDES Storm Water Construction General Permit, the NPDES Multi-Sector General Permit (Permit No. NMR050013), and the NPDES Pesticide General Permit (Permit No. NMG87B113).

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

**NPDES Industrial Point Source Outfall Permit (No. NM0028355)**

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

**NPDES Construction General Permit:**

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

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

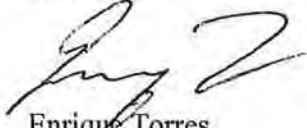
- Positions listed as primary signatory officials above.
- Group Leader or Team Leaders within the Environmental Compliance Programs Group.
- Division Leader, Deputy Division Leader, or Group Leader of the LANL division responsible for the overall operation of the regulated facility or activity.
- Responsible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

**NPDES Pesticide General Permit (No. NM687A041)**

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

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

Sincerely,



Enrique Torres  
Division Leader  
Environmental Protection & Compliance Division

ET/TWL/MTS:jdm

EPC-DO: 18-453  
Ms. Anne L. Idsal

DEC 11 2018

Page 3

Attachment(s): None.

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

Attachment 5: **DISCHARGE MONITORING REPORTS**

**From:** [no-reply@epacdx.net](mailto:no-reply@epacdx.net)  
**To:** [no-reply@epacdx.net](mailto:no-reply@epacdx.net)  
**Subject:** [EXTERNAL] Summary of Analytical Monitoring and Reporting Requirements for LOS ALAMOS NATIONAL LABORATORY - NPDES ID: NMR050013 - Discharge Authorization Date: 06/25/2021  
**Date:** Friday, June 25, 2021 4:00:27 PM

---

2021-06-25

This email serves as a reminder that the Operator of LOS ALAMOS NATIONAL LABORATORY located at PO BOX 1663, MS K490, LOS ALAMOS, NM 87545 has active permit coverage under the EPA [2021 Multi-Sector General Permit \(MSGP\)](#) and is required to complete analytical monitoring of its discharges and electronically submit results in Discharge Monitoring Reports (DMRs) using NetDMR, EPA's electronic DMR system, in accordance with Part 7.3.1 of the 2021 MSGP (for more information visit: <https://www.epa.gov/compliance/npdes-ereporting>).

Per Part 4.1.7 of the 2021 MSGP, monitoring requirements will begin in the first full calendar quarter following your date of discharge authorization. The quarters are defined as (unless modified in accordance with Part 4.1.6):

- January 1 - March 31
- April 1 - June 30
- July 1 - September 30
- October 1 - December 31

Your monitoring requirements (i.e., parameters required to be analyzed, quantification units, and sampling frequency) will be prepopulated on your electronic DMR form and can be reviewed in NetDMR, which is accessible through the EPA's Central Data Exchange (CDX) at <https://cdxnodengn.epa.gov/net-netdmr/> using your Central Data Exchange (CDX) account User ID and Password. For more information on adding the NetDMR program service or accessing your facility in NetDMR, please visit the [NetDMR Support Portal](#).

The DMRs in NetDMR are generated based on information (i.e., subsector(s), impairment status of receiving waters, applicability of effluent limitation guidelines (ELG), and location) reported for your facility in the Notice of Intent (NOI) submitted to EPA on 05/26/2021 via the NPDES e-Reporting Tool Multi Sector General Permit (NeT MSGP). A copy of the NOI can be found [here](#). Once you have access to NetDMR, carefully review your facility's electronic DMRs to ensure that they reflect the monitoring requirements as outlined in [Part 4](#) of the 2021 MSGP; [Part 8](#), which provides sector-specific Indicator, Benchmark, and applicable ELG parameters; and [Part 9](#), which provides specific monitoring requirements, if any, that apply in individual states and Indian country. Please contact your EPA Regional Authority immediately if you notice any discrepancies. A list of EPA Regional contacts is provided in the [NeT Help Center](#).

Listed below is a summary of your monitoring requirements:

Discharge Point	Sector	Subsector	SIC	Monitoring Type	Frequency	Monitoring Start Date	Initial DMR Due Date
				Indicator			

039	P	P1	4212	Monitoring - COD, TSS, pH	Quarterly	2021-07-01	2021-10-30
039				Impaired Waters	Annual	2021-07-01	2022-07-31
032	P	P1	4212	Indicator Monitoring - COD, TSS, pH	Quarterly	2021-07-01	2021-10-30
032				Impaired Waters	Annual	2021-07-01	2022-07-31
043	D	D1	2951	ELG	Annual	2021-07-01	2022-07-31
043	D	D1	2951	Benchmark	Quarterly	2021-07-01	2021-10-30
043				Impaired Waters	Annual	2021-07-01	2022-07-31
043				Indicator Monitoring - PAH	Bi-Annual	2021-07-01	2022-01-30
031	P	P1	4212	Indicator Monitoring - COD, TSS, pH	Quarterly	2021-07-01	2021-10-30
031				Impaired Waters	Annual	2021-07-01	2022-07-31
029	N	N2	5093	Indicator Monitoring - COD, TSS, pH	Quarterly	2021-07-01	2021-10-30
029				Impaired Waters	Annual	2021-07-01	2022-07-31
075	P	P1	4212	Indicator Monitoring - COD, TSS, pH	Quarterly	2021-07-01	2021-10-30
075				Impaired Waters	Annual	2021-07-01	2022-07-31
042	P	P1	4212	Indicator Monitoring - COD, TSS, pH	Quarterly	2021-07-01	2021-10-30
042				Impaired Waters	Annual	2021-07-01	2022-07-31
022	AA	AA1	3499	Benchmark	Quarterly	2021-07-01	2021-10-30
022	P	P1	4212	Indicator Monitoring - COD, TSS, pH	Quarterly	2021-07-01	2021-10-30
							2022-

022				Impaired Waters	Annual	2021-07-01	07-31
026	P	P1	4212	Indicator Monitoring - COD, TSS, pH	Quarterly	2021-07-01	2021-10-30
026				Impaired Waters	Annual	2021-07-01	2022-07-31
037	P	P1	4212	Indicator Monitoring - COD, TSS, pH	Quarterly	2021-07-01	2021-10-30
037				Impaired Waters	Annual	2021-07-01	2022-07-31
076	AA	AA1	3499	Benchmark	Quarterly	2021-07-01	2021-10-30
076				Impaired Waters	Annual	2021-07-01	2022-07-31
077	AA	AA1	3499	Benchmark	Quarterly	2021-07-01	2021-10-30
077				Impaired Waters	Annual	2021-07-01	2022-07-31
078	P	P1	4212	Indicator Monitoring - COD, TSS, pH	Quarterly	2021-07-01	2021-10-30
078				Impaired Waters	Annual	2021-07-01	2022-07-31
079	AA	AA1	3499	Benchmark	Quarterly	2021-07-01	2021-10-30
079				Impaired Waters	Annual	2021-07-01	2022-07-31

Please refer to EPA's Industrial Stormwater Monitoring and Sampling Guide at <https://www.epa.gov/npdes/industrial-stormwater-guidance> for guidance about monitoring. The 2021 MSGP and additional guidance are available at: <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities-epas-2021-msgp>.

If you have any questions regarding CDX/NetDMR related content please contact the NPDES E-Reporting HelpDesk at 1-877-227-8965 or by e-mail at [NPDESereporting@epa.gov](mailto:NPDESereporting@epa.gov).

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

DMR Copy of Record

Permit

Permit #:	NMR050013	Permittee:	Triad National Security LLC	Facility:	LOS ALAMOS NATIONAL LABORATORY
Major:	No	Permittee Address:	PO Box 1663 Los Alamos, NM 87545	Facility Location:	PO BOX 1663 LOS ALAMOS, NM 87545
Permitted Feature:	022 External Outfall	Discharge:	022-11 Fabricated Metal Products, except Coating		

Report Dates & Status

Monitoring Period:	From 07/01/21 to 09/30/21	DMR Due Date:	11/30/21	Status:	NetDMR Validated
--------------------	---------------------------	---------------	----------	---------	------------------

Considerations for Form Completion

Principal Executive Officer

First Name:	Title:	Telephone:
Last Name:		

No Data Indicator (NODI)

Form NODI:	--
------------	----

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading			Quality or Concentration						# of Ex.	Frequency of Analysis	Sample Type			
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2				Qualifier 3	Value 3	Units
01104	Aluminum, total recoverable	1 - Effluent Gross	0	--	Sample									755.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB		
					Permit Req.										<=				1100.0 MAXIMUM	28 - ug/L
					Value NODI															
X 51450	Nitrite Plus Nitrate Total	1 - Effluent Gross	0	--	Sample									1.3	19 - mg/L	1	01/90 - Quarterly	GR - GRAB		
					Permit Req.										<=				0.68 MAXIMUM	19 - mg/L
					Value NODI															

Submission Note

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

Edit Check Errors

Parameter		Monitoring Location	Field	Type	Description	Acknowledge
Code	Name					
51450	Nitrite Plus Nitrate Total	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct.	Yes

Comments

LA-UR-21-31445

Attachments

No attachments.

Report Last Saved By

Triad National Security LLC

User:	leslie@lanl.gov
Name:	Leslie Dale
E-Mail:	leslie@lanl.gov
Date/Time:	2021-11-18 10:30 (Time Zone: -06:00)

Report Last Signed By

User:	TERRILLEMKE
Name:	Terrill Lemke
E-Mail:	tlemke@lanl.gov
Date/Time:	2021-11-18 11:18 (Time Zone: -06:00)



DMR Copy of Record

Permit

Permit #:

NMR050013

Major:

No

Permitted Feature:

022  
External Outfall

Permittee:

Triad National Security LLC

Permittee Address:

PO Box 1663  
Los Alamos, NM 87545

Discharge:

022-P1  
Railroad, Local Highway Passenger Motor Freight USPS: Indicator Monitoring: (ph,TSS,COD)

Facility:

LOS ALAMOS NATIONAL LABORATORY

Facility Location:

PO BOX 1663  
LOS ALAMOS, NM 87545

Report Dates & Status

Monitoring Period:

From 07/01/21 to 09/30/21

DMR Due Date:

11/30/21

Status:

NetDMR Validated

Considerations for Form Completion

Principal Executive Officer

First Name:

Last Name:

Title:

Telephone:

No Data Indicator (NODI)

Form NODI:

--

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration						# of Ex.	Frequency of Analysis	Sample Type	
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
00400	pH	1 - Effluent Gross	0	--	Sample							7.94				7.94	12 - SU	0	01/90 - Quarterly	GR - GRAB
					Permit Req.							Req Mon MINIMUM				Req Mon MAXIMUM	12 - SU		01/90 - Quarterly	GR - GRAB
					Value NODI															
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample											11.2	19 - mg/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.											Req Mon MAXIMUM	19 - mg/L		01/90 - Quarterly	GR - GRAB
					Value NODI															
81017	Chemical Oxygen Demand [COD]	1 - Effluent Gross	0	--	Sample											146.0	19 - mg/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.											Req Mon MAXIMUM	19 - mg/L		01/90 - Quarterly	GR - GRAB
					Value NODI															

Submission Note

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

Edit Check Errors

No errors.

Comments

LA-UR-21-31445

Attachments

No attachments.

Report Last Saved By

Triad National Security LLC

User:

leslie@lanl.gov

Name:

Leslie Dale

E-Mail:

leslie@lanl.gov

Date/Time:

2021-11-18 10:30 (Time Zone: -06:00)

Report Last Signed By

User:

TERRILLEMKE

Name:

Terrill Lemke

E-Mail:

tlemke@lanl.gov

Date/Time:

2021-11-18 11:18 (Time Zone: -06:00)

# DMR Copy of Record

## Permit

Permit #:	NMR050013	Permittee:	Triad National Security LLC	Facility:	LOS ALAMOS NATIONAL LABORATORY
Major:	No	Permittee Address:	PO Box 1663 Los Alamos, NM 87545	Facility Location:	PO BOX 1663 LOS ALAMOS, NM 87545
Permitted Feature:	022 External Outfall	Discharge:	022-ZC Zinc: Water Hardness 50-74.99 mg/l		

## Report Dates & Status

Monitoring Period:	From 07/01/21 to 09/30/21	DMR Due Date:	11/30/21	Status:	NetDMR Validated
--------------------	---------------------------	---------------	----------	---------	------------------

## Considerations for Form Completion

## Principal Executive Officer

First Name:	Title:	Telephone:
Last Name:		

## No Data Indicator (NODI)

Form NODI: --

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration						# of Ex.	Frequency of Analysis	Sample Type	
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3				Units
01090	Zinc, dissolved [as Zn]	1 - Effluent Gross	0	--	Sample										98.9	28 - ug/L	0	01/90 - Quarterly	GR - GRAB	
					Permit Req.										<=	104.0 MAXIMUM		28 - ug/L	01/90 - Quarterly	GR - GRAB
					Value NODI															

## Submission Note

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

## Edit Check Errors

No errors.

## Comments

LA-UR-21-31445

## Attachments

No attachments.

## Report Last Saved By

Triad National Security LLC

User: leslie@lanl.gov  
Name: Leslie Dale  
E-Mail: leslie@lanl.gov  
Date/Time: 2021-11-18 10:30 (Time Zone: -06:00)

## Report Last Signed By

User: TERRILLEMKE  
Name: Terrill Lemke  
E-Mail: tlemke@lanl.gov  
Date/Time: 2021-11-18 11:18 (Time Zone: -06:00)

Attachment 6: **ANNUAL REPORTS**

**Attachment 7: ROUTINE FACILITY INSPECTIONS**

### Maintenance Details

**Requested:** 7/1/2021 5:37:00 PM

**Target:** 7/31/2021

 MSGP Program

**Procedure:** MSGP Routine Facility Inspection (EPC-CP-QP-2108 R0 Form 1)

**Priority/Type:** Normal / Inspection

 RG121.9

**Department:** Utilities and Infrastructure

 TA-60-1 Heavy Equipment Yard

**Last PM:** 6/11/2021

**Project:** Routine Facility Inspections  
July 2021 (P-MSGP-RI-5500)

**Contact:**  
**Phone:**

**Reason:** 2021 July Inspections

### Tasks

#	Description	Meas.	No	N/A	Yes
<b>Weather Information</b>					
20	Describe the weather at time of inspection and document the temperature (F°).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Within the Facility Boundary</b>					
40	Is the facility free of previously unidentified discharges from and/or pollutants that have occurred since the last inspection If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	If "No" has a CAR been previously initiated for this new discharge?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Outfall Inspection (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)</b>					
90	<b>Monitored Outfall [022]</b> Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100	<b>Monitored Outfall [022]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110	<b>Monitored Outfall [022]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
120	<b>Monitored Outfall [022]</b> Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	<b>Substantially Identical Outfall [021]</b> Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	<b>Substantially Identical Outfall [021]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	<b>Substantially Identical Outfall [021]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160	<b>Substantially Identical Outfall [021]</b> Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	<b>Substantially Identical Outfall [023]</b> Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	<b>Substantially Identical Outfall [023]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	<b>Substantially Identical Outfall [023]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
200	<b>Substantially Identical Outfall [023]</b> Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
210	<b>Substantially Identical Outfall [024]</b> Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
220	<b>Substantially Identical Outfall [024]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
230	<b>Substantially Identical Outfall [024]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
240	<b>Substantially Identical Outfall [024]</b> Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
250	<b>Substantially Identical Outfall [025]</b> Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

260	<b>Substantially Identical Outfall [025]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
270	<b>Substantially Identical Outfall [025]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
280	<b>Substantially Identical Outfall [025]</b> Free of any unauthorized non-stormwater discharges? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

300	<b>Asphalt Berm [6000403040027]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
310	<b>Asphalt Berm [6000403040028]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
320	<b>Asphalt Berm [6000403040029]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
330	<b>Asphalt Berm [6000403040047]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
340	<b>Gravel Bags [6000403100061]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
350	<b>Gravel Bags [6000403100095]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. <b>Comments: See CA # 1991: Gravel Bags [6000403100095] around outfall 23 in the lower east yard are showing signs of breaking open and need replacing. They appear functional at the moment but should be replaced so spilled contents don't impact the drop inlet.</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
360	<b>Concrete/Asphalt Channel/Swale [6000404020031]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
370	<b>Concrete/Asphalt Channel/Swale [6000404020032]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
380	<b>Eco-Block [6000403110060]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
390	<b>Rock Channel/Swale [6000404030023]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
400	<b>Rock Channel/Swale [6000404030043]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
410	<b>Rock Channel/Swale [6000404030073]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
420	<b>Rip Rap [6000404060002]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
430	<b>Rip Rap [6000404060039]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
440	<b>Earthen Channel/Swale [6000404010033]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
450	<b>Earthen Channel/Swale [6000404010034]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
460	<b>Gabion Swale [6000404090042]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
470	<b>Rock Check Dam [6000406010010]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
480	<b>Rock Check Dam [6000406010011]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
490	<b>Rock Check Dam [6000406010012]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
500	<b>Rock Check Dam [6000406010013]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
510	<b>Rock Check Dam [6000406010014]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
520	<b>Rock Check Dam [6000406010015]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
530	<b>Rock Check Dam [6000406010016]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
540	<b>Rock Check Dam [6000406010017]</b> Control Measure is operating effectively? If "No"	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

[illegible]



850	<b>EnviroSoxx w/ MetalLoxx [6000403200092]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
860	<b>EnviroSoxx w/ MetalLoxx [6000403200093]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
870	<b>EnviroSoxx w/ MetalLoxx [6000403200094]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
880	<b>TRM-Lined Swale [6000404080068]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
890	<b>TRM-Lined Swale [6000404080069]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe. <b>Comments: The 60-0220 tire shed canopy has been converted to metal storage recently.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
910	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
920	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
930	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
940	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
950	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
960	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
970	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
980	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
990	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1000	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1010	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1020	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1030	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1040	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe. <b>Comments: Normal housekeeping measures were being conducted today (removing unused pallets, walking perimeters etc)</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1050	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1060	<b>Sector P [60004-P]</b> Vehicle storage/maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1070		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Non-Compliance</b>				
1090	Free of incidents of observed non-compliance not already identified above? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Additional Control Measures</b>				
1110	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Labor Report**

**Completed:** 7/23/2021 11:30:00 PM



Report: Jacob Knight, DEP



Signature / Name

7/23/2021

Date

Signature / Name

Date

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

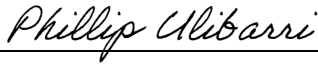
### CERTIFICATION STATEMENT

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

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

Print name and title: Phillip Ulibarri Ops Mgr. UI

Signature:



Date: 8/10/21

### Maintenance Details

**Requested:** 8/2/2021 9:41:00 AM

**Target:** 8/31/2021

 MSGP Program

**Procedure:** MSGP Routine Facility Inspection (EPC-CP-QP-2108 R0 Form 1)

**Priority/Type:** Normal / Inspection

 RG121.9

**Department:** Utilities and Infrastructure

 TA-60-1 Heavy Equipment Yard

**Last PM:** 7/23/2021

**Project:** Routine Facility Inspections  
August 2021 (P-MSGP-RI-5510)

**Contact:**  
**Phone:**

**Reason:** 2021 August Inspections

### Tasks

#	Description	Meas.	No	N/A	Yes
<b>Weather Information</b>					
20	Describe the weather at time of inspection and document the temperature (F°). <b>Comments: Mostly sunny and 81 degrees F.</b>		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Within the Facility Boundary</b>					
40	Is the facility free of previously unidentified discharges from and/or pollutants that have occurred since the last inspection If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	If "No" has a CAR been previously initiated for this new discharge?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Outfall Inspection (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)</b>					
90	<b>Monitored Outfall [022]</b> Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100	<b>Monitored Outfall [022]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110	<b>Monitored Outfall [022]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
120	<b>Monitored Outfall [022]</b> Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	<b>Substantially Identical Outfall [021]</b> Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	<b>Substantially Identical Outfall [021]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	<b>Substantially Identical Outfall [021]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160	<b>Substantially Identical Outfall [021]</b> Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	<b>Substantially Identical Outfall [023]</b> Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	<b>Substantially Identical Outfall [023]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	<b>Substantially Identical Outfall [023]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
200	<b>Substantially Identical Outfall [023]</b> Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
210	<b>Substantially Identical Outfall [024]</b> Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
220	<b>Substantially Identical Outfall [024]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
230	<b>Substantially Identical Outfall [024]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
240	<b>Substantially Identical Outfall [024]</b> Free of any unauthorized non-stormwater		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	discharges? If "No" describe.			
250	<b>Substantially Identical Outfall [025]</b> Free of Evidence of Erosion? If "No", describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
260	<b>Substantially Identical Outfall [025]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
270	<b>Substantially Identical Outfall [025]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
280	<b>Substantially Identical Outfall [025]</b> Free of any unauthorized non-stormwater discharges? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

300	<b>Asphalt Berm [6000403040027]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
310	<b>Asphalt Berm [6000403040028]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
320	<b>Asphalt Berm [6000403040029]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
330	<b>Asphalt Berm [6000403040047]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
340	<b>Gravel Bags [6000403100061]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
350	<b>Gravel Bags [6000403100095]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
360	<b>Concrete/Asphalt Channel/Swale [6000404020031]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
370	<b>Concrete/Asphalt Channel/Swale [6000404020032]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
380	<b>Eco-Block [6000403110060]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
390	<b>Rock Channel/Swale [6000404030023]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
400	<b>Rock Channel/Swale [6000404030043]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
410	<b>Rock Channel/Swale [6000404030073]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
420	<b>Rip Rap [6000404060002]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
430	<b>Rip Rap [6000404060039]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
440	<b>Earthen Channel/Swale [6000404010033]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
450	<b>Earthen Channel/Swale [6000404010034]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
460	<b>Gabion Swale [6000404090042]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
470	<b>Rock Check Dam [6000406010010]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
480	<b>Rock Check Dam [6000406010011]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. <b>Comments: See CA# 2000: The rock check dams in the drainage channels up gradient of outfall 25 in the upper west side heavy equipment yard are in need of repair and sediment removal.</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
490	<b>Rock Check Dam [6000406010012]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
500	<b>Rock Check Dam [6000406010013]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
510	<b>Rock Check Dam [6000406010014]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
520	<b>Rock Check Dam [6000406010015]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
530	<b>Rock Check Dam [6000406010016]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



540	<b>Rock Check Dam [6000406010017]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
550	<b>Rock Check Dam [6000406010018]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
560	<b>Rock Check Dam [6000406010019]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
570	<b>Rock Check Dam [6000406010020]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
580	<b>Rock Check Dam [6000406010021]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
590	<b>Rock Check Dam [6000406010022]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
600	<b>Rock Check Dam [6000406010052]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
610	<b>Rock Check Dam [6000406010053]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
620	<b>Rock Check Dam [6000406010054]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
630	<b>Rock Check Dam [6000406010055]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
640	<b>Rock Check Dam [6000406010056]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<b>Rock Check Dam [6000406010057]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.			
	<b>Comments: See CA#2000: The rock check dams in the drainage channels up gradient of outfall 25 in the upper west side heavy equipment yard are in need of repair and sediment removal.</b>			
650		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
660	<b>Rock Check Dam [6000406010058]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
670	<b>Rock Check Dam [6000406010074]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
680	<b>Rock Check Dam [6000406010075]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
690	<b>Rock Check Dam [6000406010076]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
700	<b>Rock Check Dam [6000406010077]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
710	<b>Rock Check Dam [6000406010098]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
720	<b>Rock Check Dam [6000406010099]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
730	<b>Gabion [6000407010035]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
740	<b>Gabion [6000407010036]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
750	<b>Gabion [6000407010037]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
760	<b>Gabion [6000407010038]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
770	<b>Trench Drain [6000409040046]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
780	<b>Drop inlet with filters [6000409020096]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
790	<b>Drop Inlet with Petro-Plug [6000409010040]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
800	<b>EnviroSoxx w/ MetalLoxx [6000403200086]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
810	<b>EnviroSoxx w/ MetalLoxx [6000403200087]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
820	<b>EnviroSoxx w/ MetalLoxx [6000403200088]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

830	<b>EnviroSoxx w/ MetalLoxx [6000403200090]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
840	<b>EnviroSoxx w/ MetalLoxx [6000403200091]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
850	<b>EnviroSoxx w/ MetalLoxx [6000403200092]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
860	<b>EnviroSoxx w/ MetalLoxx [6000403200093]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
870	<b>EnviroSoxx w/ MetalLoxx [6000403200094]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
880	<b>TRM-Lined Swale [6000404080068]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
890	<b>TRM-Lined Swale [6000404080069]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe. <b>Comments: See CA# 2002: A rusting carbon steel pipe was staged outside of the metal storage canopy in the SE corner of the upper yard on the east side of 60-1.</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
910	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
920	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
930	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
940	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
950	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
960	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe. <b>Comments: See CA 2001: While refueling a LANL truck in the designated refueling area approx. 1 cup of fuel splashed onto the asphalt (this has occurred previously as well). Absorbent was disposed of and micro-blaze was applied. Crews will utilize spill pads or other controls more pro-actively instead of responding to fuel spillage on asphalt.</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
970	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
980	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
990	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1000	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1010	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1020	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1030	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1040	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe. <b>Comments: Mechanical sweeping with the sweeper truck was completed August 20th.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1050	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1060	<b>Sector P [60004-P]</b> Vehicle storage/maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1070		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### Non-Compliance

1090	Free of incidents of observed non-compliance not already identified above? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
------	--	--------------------------	--------------------------	-------------------------------------

**Additional Control Measures**

Are permit requirements satisfied with existing control measure(s)? If "No" describe  
1110 additional control measures needed.

**Labor Report**

Completed: 8/23/2021 2:00:00 PM

Report: Jacob Knight

Signature / Name

8/26/2021

Date

Signature / Name

Date

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

**CERTIFICATION STATEMENT**

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

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

Print name and title: Larry Velasquez, LOG-HERG Group Leader

Signature:

Date: 09/16/2021



## Maintenance Details

Requested: 8/30/2021 5:22:00 PM

Target: 9/30/2021

MSGP Program

Procedure: MSGP Routine Facility  
Inspection (EPC-CP-QP-  
2108 R0 Form 1)

Priority/Type: Normal / Inspection

RG121.9

Department: Utilities and Infrastructure

TA-60-1 Heavy Equipment Yard

Last PM: 8/23/2021

Project: Routine Facility Inspections  
September 2021 (P-MSGP-  
RI-5516)Contact:  
Phone:

Reason: 2021 September Inspections

## Tasks

#	Description	Meas.	No	N/A	Yes
<b>Weather Information</b>					
	Describe the weather at time of inspection and document the temperature (F°).				
20	Comments: Sunny, clear, and 79 degrees F.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Within the Facility Boundary</b>					
40	Is the facility free of previously unidentified discharges from and/or pollutants that have occurred since the last inspection If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	If "No" has a CAR been previously initiated for this new discharge?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Outfall Inspection (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)</b>					
90	Monitored Outfall [022] Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100	Monitored Outfall [022] Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110	Monitored Outfall [022] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
120	Monitored Outfall [022] Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Substantially Identical Outfall [021] Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Substantially Identical Outfall [021] Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Substantially Identical Outfall [021] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160	Substantially Identical Outfall [021] Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	Substantially Identical Outfall [023] Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Substantially Identical Outfall [023] Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	Substantially Identical Outfall [023] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
200	Substantially Identical Outfall [023] Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
210	Substantially Identical Outfall [024] Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
220	Substantially Identical Outfall [024] Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
230	Substantially Identical Outfall [024] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
240	Substantially Identical Outfall [024] Free of any unauthorized non-stormwater		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



	discharges? If "No" describe.			
250	<b>Substantially Identical Outfall [025]</b> Free of Evidence of Erosion? If "No", describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
260	<b>Substantially Identical Outfall [025]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
270	<b>Substantially Identical Outfall [025]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
280	<b>Substantially Identical Outfall [025]</b> Free of any unauthorized non-stormwater discharges? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

300	<b>Asphalt Berm [6000403040027]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
310	<b>Asphalt Berm [6000403040028]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
320	<b>Asphalt Berm [6000403040029]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
330	<b>Asphalt Berm [6000403040047]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
340	<b>Gravel Bags [6000403100061]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
350	<b>Gravel Bags [6000403100095]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
360	<b>Concrete/Asphalt Channel/Swale [6000404020031]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
370	<b>Concrete/Asphalt Channel/Swale [6000404020032]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
380	<b>Eco-Block [6000403110060]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
390	<b>Rock Channel/Swale [6000404030023]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
400	<b>Rock Channel/Swale [6000404030043]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
410	<b>Rock Channel/Swale [6000404030073]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
420	<b>Rip Rap [6000404060002]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
430	<b>Rip Rap [6000404060039]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
440	<b>Earthen Channel/Swale [6000404010033]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
450	<b>Earthen Channel/Swale [6000404010034]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
460	<b>Gabion Swale [6000404090042]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
470	<b>Rock Check Dam [6000406010010]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
480	<b>Rock Check Dam [6000406010011]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
490	<b>Rock Check Dam [6000406010012]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
500	<b>Rock Check Dam [6000406010013]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
510	<b>Rock Check Dam [6000406010014]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
520	<b>Rock Check Dam [6000406010015]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
530	<b>Rock Check Dam [6000406010016]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
540	<b>Rock Check Dam [6000406010017]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



550	<b>Rock Check Dam [6000406010018]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
560	<b>Rock Check Dam [6000406010019]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
570	<b>Rock Check Dam [6000406010020]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
580	<b>Rock Check Dam [6000406010021]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
590	<b>Rock Check Dam [6000406010022]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
600	<b>Rock Check Dam [6000406010052]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
610	<b>Rock Check Dam [6000406010053]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
620	<b>Rock Check Dam [6000406010054]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
630	<b>Rock Check Dam [6000406010055]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
640	<b>Rock Check Dam [6000406010056]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
650	<b>Rock Check Dam [6000406010057]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
660	<b>Rock Check Dam [6000406010058]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
670	<b>Rock Check Dam [6000406010074]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
680	<b>Rock Check Dam [6000406010075]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
690	<b>Rock Check Dam [6000406010076]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
700	<b>Rock Check Dam [6000406010077]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
710	<b>Rock Check Dam [6000406010098]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
720	<b>Rock Check Dam [6000406010099]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
730	<b>Gabion [6000407010035]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
740	<b>Gabion [6000407010036]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
750	<b>Gabion [6000407010037]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
760	<b>Gabion [6000407010038]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
770	<b>Trench Drain [6000409040046]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
780	<b>Drop inlet with filters [6000409020096]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
790	<b>Drop Inlet with Petro-Plug [6000409010040]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. <b>Comments: Petro-barrier boxes and filters were replaced with new ones on 9-16-21</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
800	<b>EnviroSoxx w/ MetalLoxx [6000403200086]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
810	<b>EnviroSoxx w/ MetalLoxx [6000403200087]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
820	<b>EnviroSoxx w/ MetalLoxx [6000403200088]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
830	<b>EnviroSoxx w/ MetalLoxx [6000403200090]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
840	<b>EnviroSoxx w/ MetalLoxx [6000403200091]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



850	<b>EnviroSoxx w/ MetalLoxx [6000403200092]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
860	<b>EnviroSoxx w/ MetalLoxx [6000403200093]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
870	<b>EnviroSoxx w/ MetalLoxx [6000403200094]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
880	<b>TRM-Lined Swale [6000404080068]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
890	<b>TRM-Lined Swale [6000404080069]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

910	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
920	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
930	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
940	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
950	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
960	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
970	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe. <b>Comments: Using absorbent mats now at fueling location to capture drips. Previous spills were absorbed and micro-blaze was applied.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
980	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
990	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1000	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1010	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1020	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1030	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1040	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1050	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1060	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe. <b>Comments: see CAR # 2009: During efforts to calibrate deicer sprayers on ATVs an abnormal amount drained onto pavement and soil in the lower east yard at the heavy equipment shop.</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1070	<b>Sector P [60004-P]</b> Vehicle storage/maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Non-Compliance**

1090	Free of incidents of observed non-compliance not already identified above? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
------	--	--------------------------	--------------------------	-------------------------------------

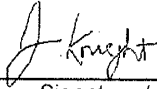
**Additional Control Measures**

1110	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
------	--	--------------------------	--------------------------	-------------------------------------

**Labor Report**

Completed: 9/17/2021 12:45:00 PM

Report: Jacob Knight



Signature / Name

9/17/2021

Date

Signature / Name

Date

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

### CERTIFICATION STATEMENT

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

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

Print name and title: Larry Velasquez, LOG-HERG Group Leader

LARRY

VELASQUEZ

(Affiliate)

Digitally signed by LARRY

VELASQUEZ (Affiliate)

Date: 2021.10.21

15:47:48 -06'00'

Signature:

Date: 10-21-2021



## Maintenance Details

Requested: 10/4/2021 11:35:00 AM

Target: 10/31/2021

MSGP Program

Procedure: MSGP Routine Facility  
Inspection (EPC-CP-QP-  
2108 R0 Form 1)

Priority/Type: Normal / Inspection

RG121.9

Department: Utilities and Infrastructure

TA-60-1 Heavy Equipment Yard

Last PM: 9/17/2021

Project: Routine Facility Inspections  
October 2021 (P-MSGP-RI-  
5524)Contact:  
Phone:

Reason: 2021 October Inspections

## Tasks

#	Description	Meas.	No	N/A	Yes
<b>Weather Information</b>					
	Describe the weather at time of inspection and document the temperature (F°).				
20	Comments: Sunny, clear, and 38 degrees F		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Within the Facility Boundary</b>					
40	Is the facility free of previously unidentified discharges from and/or pollutants that have occurred since the last inspection If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	If "No" has a CAR been previously initiated for this new discharge?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Outfall Inspection (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)</b>					
90	Monitored Outfall [022] Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100	Monitored Outfall [022] Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110	Monitored Outfall [022] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
120	Monitored Outfall [022] Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Substantially Identical Outfall [021] Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Substantially Identical Outfall [021] Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Substantially Identical Outfall [021] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160	Substantially Identical Outfall [021] Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	Substantially Identical Outfall [023] Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Substantially Identical Outfall [023] Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	Substantially Identical Outfall [023] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
200	Substantially Identical Outfall [023] Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
210	Substantially Identical Outfall [024] Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
220	Substantially Identical Outfall [024] Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
230	Substantially Identical Outfall [024] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
240	Substantially Identical Outfall [024] Free of any unauthorized non-stormwater		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



	discharges? If "No" describe.			
250	<b>Substantially Identical Outfall [025]</b> Free of Evidence of Erosion? If "No", describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
260	<b>Substantially Identical Outfall [025]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
270	<b>Substantially Identical Outfall [025]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
280	<b>Substantially Identical Outfall [025]</b> Free of any unauthorized non-stormwater discharges? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

300	<b>Asphalt Berm [6000403040027]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
310	<b>Asphalt Berm [6000403040028]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
320	<b>Asphalt Berm [6000403040029]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
330	<b>Asphalt Berm [6000403040047]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
340	<b>Gravel Bags [6000403100061]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
350	<b>Gravel Bags [6000403100095]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
360	<b>Concrete/Asphalt Channel/Swale [6000404020031]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
370	<b>Concrete/Asphalt Channel/Swale [6000404020032]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
380	<b>Eco-Block [6000403110060]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
390	<b>Rock Channel/Swale [6000404030023]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
400	<b>Rock Channel/Swale [6000404030043]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
410	<b>Rock Channel/Swale [6000404030073]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
420	<b>Rip Rap [6000404060002]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
430	<b>Rip Rap [6000404060039]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
440	<b>Earthen Channel/Swale [6000404010033]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
450	<b>Earthen Channel/Swale [6000404010034]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
460	<b>Gabion Swale [6000404090042]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
470	<b>Rock Check Dam [6000406010010]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
480	<b>Rock Check Dam [6000406010011]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
490	<b>Rock Check Dam [6000406010012]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
500	<b>Rock Check Dam [6000406010013]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
510	<b>Rock Check Dam [6000406010014]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
520	<b>Rock Check Dam [6000406010015]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
530	<b>Rock Check Dam [6000406010016]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
540	<b>Rock Check Dam [6000406010017]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



[illegible]



	"No" describe condition & need for Maintenance, Repair, or Replacement.			
860	<b>EnviroSoxx w/ MetalLoxx [6000403200093]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
870	<b>EnviroSoxx w/ MetalLoxx [6000403200094]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
880	<b>TRM-Lined Swale [6000404080068]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
890	<b>TRM-Lined Swale [6000404080069]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

910	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
920	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
930	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
940	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
950	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
960	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
970	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
980	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
990	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1000	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1010	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1020	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1030	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1040	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1050	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe. <b>Comments: See CAR #2020: Along the south perimeter of the upper yard at TA-60-1 Heavy Equipment there is a fencing replacement project underway. There is some cut metal and debris that needs to be picked up. Also as part of the project the area was cleared of vegetation and there is a lot of trash exposed now that needs cleanup. There was also trash in some drainage areas along the east perimeter of the upper yard.</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1060	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe. <b>Comments: See CAR #2021: A LANL dump truck was delivered after being repaired and parked on the west side sloped area. The tank for the diesel exhaust fluid (2/3 water 1/3 urea - non toxic) was full and it leaked approximately 1 pint or less of fluid onto the pavement.</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1070	<b>Sector P [60004-P]</b> Vehicle storage/maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Non-Compliance**

1090	Free of incidents of observed non-compliance not already identified above? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
------	--	--------------------------	--------------------------	-------------------------------------

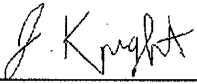
**Additional Control Measures**

1110	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
------	--	--------------------------	--------------------------	-------------------------------------

## Labor Report

Completed: 10/15/2021 11:00:00 AM

Report: Jacob Knight



10/20/2021

Signature / Name

Date

Signature / Name

Date

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

### CERTIFICATION STATEMENT

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

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

Print name and title: Larry Velasquez LOG-HERG Group Leader

LARRY VELASQUEZ

Digitally signed by LARRY VELASQUEZ  
(Affiliate)

Signature: (Affiliate)

Date: 2021.11.03 16:03:18 -06'00'

Date: 11-3-2021



## Maintenance Details

Requested: 11/1/2021 11:37:00 AM

Target: 11/28/2021

Procedure: MSGP Routine Facility  
Inspection (EPC-CP-QP-  
2108 R0 Form 1)

Priority/Type: Normal / Inspection

Department: Utilities and  
Infrastructure

MSGP Program

RG121.9

TA-60-1 Heavy Equipment Yard

Last PM: 10/15/2021

Project: Routine Facility Inspections  
November 2021 (P-MSGP-  
RI-5530)

Contact:

Phone:

Reason: 2021 November Inspections

## Tasks

#	Description	Meas.	No	N/A	Yes
<b>Weather Information</b>					
	Describe the weather at time of inspection and document the temperature (F°).				
20	Comments: 61 degrees F and sunny.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Within the Facility Boundary</b>					
40	Is the facility free of previously unidentified discharges from and/or pollutants that have occurred since the last inspection If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	If "No" has a CAR been previously initiated for this new discharge?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Outfall Inspection (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)</b>					
90	Monitored Outfall [022] Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100	Monitored Outfall [022] Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110	Monitored Outfall [022] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
120	Monitored Outfall [022] Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Substantially Identical Outfall [021] Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Substantially Identical Outfall [021] Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Substantially Identical Outfall [021] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160	Substantially Identical Outfall [021] Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	Substantially Identical Outfall [023] Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Substantially Identical Outfall [023] Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	Substantially Identical Outfall [023] Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
200	Substantially Identical Outfall [023] Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
210	Substantially Identical Outfall [024] Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



220	<b>Substantially Identical Outfall [024]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
230	<b>Substantially Identical Outfall [024]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
240	<b>Substantially Identical Outfall [024]</b> Free of any unauthorized non-stormwater discharges? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
250	<b>Substantially Identical Outfall [025]</b> Free of Evidence of Erosion? If "No", describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
260	<b>Substantially Identical Outfall [025]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
270	<b>Substantially Identical Outfall [025]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
280	<b>Substantially Identical Outfall [025]</b> Free of any unauthorized non-stormwater discharges? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

300	<b>Asphalt Berm [6000403040027]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
310	<b>Asphalt Berm [6000403040028]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
320	<b>Asphalt Berm [6000403040029]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
330	<b>Asphalt Berm [6000403040047]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
340	<b>Gravel Bags [6000403100061]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
350	<b>Gravel Bags [6000403100095]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
360	<b>Concrete/Asphalt Channel/Swale [6000404020031]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
370	<b>Concrete/Asphalt Channel/Swale [6000404020032]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
380	<b>Eco-Block [6000403110060]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
390	<b>Rock Channel/Swale [6000404030023]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
400	<b>Rock Channel/Swale [6000404030043]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
410	<b>Rock Channel/Swale [6000404030073]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
420	<b>Rip Rap [6000404060002]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
430	<b>Rip Rap [6000404060039]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
440	<b>Earthen Channel/Swale [6000404010033]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
450	<b>Earthen Channel/Swale [6000404010034]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
460	<b>Gabion Swale [6000404090042]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
470	<b>Rock Check Dam [6000406010010]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
480	<b>Rock Check Dam [6000406010011]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
490	<b>Rock Check Dam [6000406010012]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
500	<b>Rock Check Dam [6000406010013]</b> Control Measure is operating effectively? If	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



[illegible]



	Replacement.				
800	EnviroSoxx w/ MetalLoxx [6000403200086] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
810	EnviroSoxx w/ MetalLoxx [6000403200087] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
820	EnviroSoxx w/ MetalLoxx [6000403200088] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
830	EnviroSoxx w/ MetalLoxx [6000403200090] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
840	EnviroSoxx w/ MetalLoxx [6000403200091] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
850	EnviroSoxx w/ MetalLoxx [6000403200092] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
860	EnviroSoxx w/ MetalLoxx [6000403200093] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
870	EnviroSoxx w/ MetalLoxx [6000403200094] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
880	TRM-Lined Swale [6000404080068] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
890	TRM-Lined Swale [6000404080069] Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.

**Comments: see CAR# 2035 - in the lower east yard there was some cut aluminum sheets and other metal that were relocated from inside a shed to outside and are uncovered/exposed.**

910	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
920	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
930	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
940	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
950	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
960	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
970	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
980	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
990	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1000	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1010	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1020	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1030		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

1040	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1050	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1060	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1070	<b>Sector P [60004-P]</b> Vehicle storage/maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Non-Compliance</b>				
1090	Free of incidents of observed non-compliance not already identified above? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Additional Control Measures</b>				
1110	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Labor Report

Completed: 11/15/2021 3:00:00 PM

Report: Jacob Knight, DEP

	<u>11/16/2021</u>		
Signature / Name	Date	Signature / Name	Date

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

### CERTIFICATION STATEMENT

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

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

Print name and title: Larry Velasquez, LOG-HERG Group Leader

Signature: LARRY VELASQUEZ (Affiliate) Digitally signed by LARRY VELASQUEZ (Affiliate)  
Date: 2021.12.06 15:05:47 -07'00' Date: 12/06/2021



## Maintenance Details

Requested: 12/1/2021 12:04:00 PM

Target: 12/31/2021

MSGP Program

Procedure: MSGP Routine Facility  
Inspection (EPC-CP-QP-  
2108 R0 Form 1)

Priority/Type: Normal / Inspection

RG121.9

Department: Utilities and Infrastructure

TA-60-1 Heavy Equipment Yard

Last PM: 11/15/2021

Project: Routine Facility Inspections  
December 2021 (P-MSGP-  
RI-5538)Contact:  
Phone:

Reason: 2021 December Inspections

## Tasks

#	Description	Meas.	No	N/A	Yes
<b>Weather Information</b>					
20	Describe the weather at time of inspection and document the temperature (F°). <b>Comments: 52 degrees F and mostly cloudy. Light snow predicted.</b>		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Within the Facility Boundary</b>					
40	Is the facility free of previously unidentified discharges from and/or pollutants that have occurred since the last inspection If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	If "No" has a CAR been previously initiated for this new discharge?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Outfall Inspection (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)</b>					
90	<b>Monitored Outfall [022]</b> Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100	<b>Monitored Outfall [022]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
110	<b>Monitored Outfall [022]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
120	<b>Monitored Outfall [022]</b> Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	<b>Substantially Identical Outfall [021]</b> Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	<b>Substantially Identical Outfall [021]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	<b>Substantially Identical Outfall [021]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160	<b>Substantially Identical Outfall [021]</b> Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	<b>Substantially Identical Outfall [023]</b> Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	<b>Substantially Identical Outfall [023]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	<b>Substantially Identical Outfall [023]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
200	<b>Substantially Identical Outfall [023]</b> Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
210	<b>Substantially Identical Outfall [024]</b> Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
220	<b>Substantially Identical Outfall [024]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
230	<b>Substantially Identical Outfall [024]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
240	<b>Substantially Identical Outfall [024]</b> Free of any unauthorized non-stormwater		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



	discharges? If "No" describe.			
250	<b>Substantially Identical Outfall [025]</b> Free of Evidence of Erosion? If "No", describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
260	<b>Substantially Identical Outfall [025]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
270	<b>Substantially Identical Outfall [025]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
280	<b>Substantially Identical Outfall [025]</b> Free of any unauthorized non-stormwater discharges? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

300	<b>Asphalt Berm [6000403040027]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
310	<b>Asphalt Berm [6000403040028]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
320	<b>Asphalt Berm [6000403040029]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
330	<b>Asphalt Berm [6000403040047]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
340	<b>Gravel Bags [6000403100061]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
350	<b>Gravel Bags [6000403100095]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
360	<b>Concrete/Asphalt Channel/Swale [6000404020031]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
370	<b>Concrete/Asphalt Channel/Swale [6000404020032]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
380	<b>Eco-Block [6000403110060]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
390	<b>Rock Channel/Swale [6000404030023]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
400	<b>Rock Channel/Swale [6000404030043]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
410	<b>Rock Channel/Swale [6000404030073]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
420	<b>Rip Rap [6000404060002]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
430	<b>Rip Rap [6000404060039]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
440	<b>Earthen Channel/Swale [6000404010033]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
450	<b>Earthen Channel/Swale [6000404010034]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
460	<b>Gabion Swale [6000404090042]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
470	<b>Rock Check Dam [6000406010010]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
480	<b>Rock Check Dam [6000406010011]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
490	<b>Rock Check Dam [6000406010012]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
500	<b>Rock Check Dam [6000406010013]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
510	<b>Rock Check Dam [6000406010014]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
520	<b>Rock Check Dam [6000406010015]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
530	<b>Rock Check Dam [6000406010016]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
540	<b>Rock Check Dam [6000406010017]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



550	<b>Rock Check Dam [6000406010018]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
560	<b>Rock Check Dam [6000406010019]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
570	<b>Rock Check Dam [6000406010020]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
580	<b>Rock Check Dam [6000406010021]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
590	<b>Rock Check Dam [6000406010022]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
600	<b>Rock Check Dam [6000406010052]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
610	<b>Rock Check Dam [6000406010053]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
620	<b>Rock Check Dam [6000406010054]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement. <b>Comments: There is a lot of evidence of gopher activity and mounds. Pest control will be contacted to see if they can do anything.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
630	<b>Rock Check Dam [6000406010055]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
640	<b>Rock Check Dam [6000406010056]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
650	<b>Rock Check Dam [6000406010057]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
660	<b>Rock Check Dam [6000406010058]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
670	<b>Rock Check Dam [6000406010074]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
680	<b>Rock Check Dam [6000406010075]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
690	<b>Rock Check Dam [6000406010076]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
700	<b>Rock Check Dam [6000406010077]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
710	<b>Rock Check Dam [6000406010098]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
720	<b>Rock Check Dam [6000406010099]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
730	<b>Gabion [6000407010035]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
740	<b>Gabion [6000407010036]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
750	<b>Gabion [6000407010037]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
760	<b>Gabion [6000407010038]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
770	<b>Trench Drain [6000409040046]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
780	<b>Drop inlet with filters [6000409020096]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
790	<b>Drop Inlet with Petro-Plug [6000409010100]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
800	<b>EnviroSoxx w/ MetalLoxx [6000403200086]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
810	<b>EnviroSoxx w/ MetalLoxx [6000403200087]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
820	<b>EnviroSoxx w/ MetalLoxx [6000403200088]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
830	<b>EnviroSoxx w/ MetalLoxx [6000403200090]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
840	<b>EnviroSoxx w/ MetalLoxx [6000403200091]</b> Control Measure is operating effectively? If	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



	"No" describe condition & need for Maintenance, Repair, or Replacement.			
850	<b>EnviroSoxx w/ MetalLoxx [6000403200092]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
860	<b>EnviroSoxx w/ MetalLoxx [6000403200093]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
870	<b>EnviroSoxx w/ MetalLoxx [6000403200094]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
880	<b>TRM-Lined Swale [6000404080068]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
890	<b>TRM-Lined Swale [6000404080069]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

910	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
920	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
930	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
940	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
950	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
960	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
970	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
980	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
990	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1000	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1010	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1020	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1030	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1040	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1050	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe. <b>Comments: See CAR # 2053: On the east side of TA-60-1, outside of the battery shed, three batteries were being stored outside of the shed and were leaking. See CAR # 2052: At the NE corner of TA-60-1, there is an area on the concrete apron that has deteriorated and has formed a depression. Water was present in the depression that had an oil sheen on it.</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1060				
1070	<b>Sector P [60004-P]</b> Vehicle storage/maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Non-Compliance**

1090	Free of incidents of observed non-compliance not already identified above? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
------	--	--------------------------	--------------------------	-------------------------------------

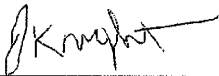
**Additional Control Measures**

1110	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
------	--	--------------------------	--------------------------	-------------------------------------

**Labor Report**

Completed: 12/9/2021 3:30:00 PM

Report: Jacob Knight, DEP



12/10/2021

Signature / Name

Date

Signature / Name

Date

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

### CERTIFICATION STATEMENT

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

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

Print name and title: Larry Velasquez LOG-HERG Group Leader

LARRY VELASQUEZ

(Affiliate)

Digitally signed by LARRY  
VELASQUEZ (Affiliate)  
Date: 2022.01.04 13:32:56 -07'00'

Signature:

Date: January 04, 2022

Attachment 8: **QUARTERLY VISUAL ASSESSMENTS**

# NMR050013 MSGP 2021

## TA-60-2 Warehouse

### Quarterly Visual Assessment Forms, First Quarter, July through September 2021

I certify under penalty of law that this document and all attachments 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.

Terrill W. Lemke, EPC-CP Storm Water Permitting/Compliance Team  
Leader

Los Alamos National Laboratory

TERRILL LEMKE  
(Affiliate)

Digitally signed by TERRILL  
LEMKE (Affiliate)  
Date: 2021.10.27 10:45:31  
-06'00'

\_\_\_\_\_  
Manager Signature





Facility Name	Sampling Station	Work Order #
TA-60-2 Warehouse	MSGP02601	MSGP-65034
TA-60-2 Warehouse	MSGP07501	MSGP-65035
TA-60-2 Warehouse	MSGP02801	MSGP-65056



## Maintenance Details

**Requested:** 7/6/2021 5:44:00 PM  
**Procedure:** MSGP Quarterly Visual Assessment (EPC-CP-QP-2105 R1 Form 1)  
**Last PM:** 7/6/2021  
**Project:** Visual Assessments 7/1/21 (P-MSGP-5503)

**Target:** 9/30/2021  
**Priority/Type:** / Inspection  
**Department:** Utilities and Infrastructure

 MSGP Program  
 RG121.9  
 TA-60-2 Warehouse  
 Monitored Outfall (026)  
**MSGP02601**

**Reason:** MSGP Quarterly Visual Assessment

**Contact:**  
**Phone:**

## Tasks

#	Description	Meas.	No	N/A	Yes
---	-------------	-------	----	-----	-----

The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.

## Sample information

30	Document the monitoring period.	july-sept	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/1/21 14:42	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/1/21 14:42	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/6/21 12:32	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	rain 0.24	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Parameters

110	Is sample colorless? If "Failed", describe.	brown	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120	Is sample odorless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).	slightly cloudy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	veg	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, coarse).	fine	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, coarse).	coarse	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g., 'on the surface' or 'in the sample').		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Labor Report

**Completed:** 7/6/2021 12:32:00 PM

**Report:** Marwin Shendo



7/7/2021

Signature / Name

Date

Signature / Name

Date

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

### CERTIFICATION STATEMENT

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

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

Print name and title: Terrill W. Lemke, EPC-CP Storm Water Permitting/Compliance Team Leader

Signature: (See signature on file) Date: \_\_\_\_\_

## Maintenance Details

Requested: 7/28/2021 3:50:00 PM

Target: 9/30/2021

Procedure: MSGP Quarterly Visual  
Assessment (EPC-CP-QP-  
2105 R1 Form 1)

Priority/Type: / Inspection

Department: Utilities and Infrastructure

MSGP Program

RG121.9

TA-60-2 Warehouse

Monitored Outfall (075)

MSGP07501

Last PM: 7/6/2021

Project: Visual Assessments 7/1/21  
(P-MSGP-5503)

Reason: MSGP Quarterly Visual Assessment

Contact:

Phone:

## Tasks

#	Description	Meas.	No	N/A	Yes
---	-------------	-------	----	-----	-----

The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.

## Sample information

30	Document the monitoring period.	jul-sept	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/23/21 1935	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/23/21 1935	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/29/21 1542	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	rain 0.1 inch	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

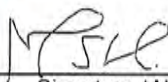
## Parameters

110	Is sample colorless? If "Failed", describe.	brown	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120	Is sample odorless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).	opaque	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, coarse).	fine	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, coarse).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g., 'on the surface' or 'in the sample').		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Labor Report

Completed: 7/29/2021 3:42:00 PM

Report: Marwin Shendo



Signature / Name

8/3/2021

Date

Signature / Name

Date

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

### CERTIFICATION STATEMENT

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





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

Print name and title: Terrill W. Lemke, EPC-CP Storm Water Permitting/Compliance Team Leader

Signature: (See signature on file) Date: \_\_\_\_\_



## Maintenance Details

**Requested By:** Banar, Alethea on  
7/7/2021 11:18:00 AM**Target:** 9/30/2021**Priority/Type:** / Inspection**Taken By:** Banar, Alethea**Department:** Utilities and Infrastructure**Procedure:** MSGP Quarterly Visual  
Assessment (EPC-CP-  
QP-2105 R1 Form 1) MSGP Program RG121.9 TA-60-2 Warehouse Monitored Outfall (026) Substantially Identical Outfall (028) MSGP02801**Last PM:** 7/7/2021**Project:** Visual Assessments  
7/1/21 (P-MSGP-5503)**Contact:** Banar, Alethea**Phone:** 699-5836**Reason:** MSGP Quarterly Visual Assessment

## Tasks

#	Description	Meas.	No	N/A	Yes
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.					
<b>Sample information</b>					
30	Document the monitoring period.	July-Sept	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/1/21 13:20	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/7/21 9:50	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	7/7/21 9:50	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain 0.24 in.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Parameters</b>					
110	Is sample colorless? If "Failed", describe.	Light tan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120	Is sample odorless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	Pollen and veg	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, coarse).	Fine and coarse sediment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, coarse).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g., 'on the surface' or 'in the sample').		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Labor Report

**Completed:** 7/7/2021 9:50:00 AM**Report:** Alethea Banar

7/7/2021

AKB \_\_\_\_\_  
Signature / Name Date Signature / Name Date  
I confirm the information as recorded is true, accurate and complete.

### CERTIFICATION STATEMENT

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

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

Print name and title: Terrill W. Lemke, EPC-CP Storm Water Permitting/Compliance Team Leader

Signature: (See signature on file) Date: \_\_\_\_\_

NMR050013 MSGP 2021  
TA-60-1 Heavy Equipment Yard

Quarterly Visual Assessment Forms,  
Second Quarter, October through December 2021

I certify under penalty of law that this document and all attachments 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.

Terrill W. Lemke, EPC-CP Storm Water Permitting/Compliance Team  
Leader

Los Alamos National Laboratory

TERRILL LEMKE  
(Affiliate)

Digitally signed by TERRILL  
LEMKE (Affiliate)  
Date: 2022.01.14 12:55:57  
-07'00'

\_\_\_\_\_  
Manager Signature

Facility Name	Sampling Station	Work Order #
TA-60 Roads and Grounds	MSGP02101	MSGP-65262
TA-60 Roads and Ground	MSGP02301	MSGP-65263
TA-60 Roads and Ground	MSGP02401	MSGP-65264
TA-60 Roads and Ground	MSGP02501	MSGP-65265
TA-60 Roads and Ground	MSGP02201	MSGP-65618



## Maintenance Details

Requested: 10/1/2021 2:04:00 PM

Target: 11/30/2021

MSGP Program

Procedure: MSGP Quarterly Visual  
Assessment (EPC-CP-QP-  
2105 R1 Form 1)

Priority/Type: Normal / Inspection

RG121.9

Department: Utilities and Infrastructure

TA-60-1 Heavy Equipment Yard

Last PM: 10/1/2021

Monitored Outfall (022)

Project: Visual Assessments 10/1/21  
(P-MSGP-5523)

Substantially Identical Outfall (021)

MSGP02101

Reason: MSGP Quarterly Visual Assessment

Contact:

Phone:

## Tasks

#	Description	Meas.	No	N/A	Yes
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.					
<b>Sample information</b>					
30	Document the monitoring period.	Oct-Dec	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/1/21 1:00am	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/1/21 1:00am	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/1/21 12:50pm	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain 1.31 in	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Parameters</b>					
110	Is sample colorless? If "Failed", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
120	Is sample odorless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, coarse).		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, coarse).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g., 'on the surface' or 'in the sample').		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Labor Report

Completed: 10/1/2021 12:50:00 PM

Report: Alethea Banar

AKB

Signature / Name

10/1/2021

Date

Signature / Name

Date

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

### **CERTIFICATION STATEMENT**

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

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

Print name and title: Terrill W. Lemke, EPC-CP Storm Water Permitting/Compliance Team Leader

Signature: (See signature on file) Date: \_\_\_\_\_



# Los Alamos National Laboratory







Work Order MSGP-65263

MSGP Monitoring Stations  
Printed 12/13/2021 - 5:33 PM

## Maintenance Details

**Requested:** 10/1/2021 2:04:00 PM  
**Procedure:** MSGP Quarterly Visual Assessment (EPC-CP-QP-2105 R1 Form 1)  
**Last PM:** 9/30/2021  
**Project:** Visual Assessments 10/1/21 (P-MSGP-5523)

**Target:** 11/30/2021  
**Priority/Type:** Normal / Inspection  
**Department:** Utilities and Infrastructure

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

**Reason:** MSGP Quarterly Visual Assessment

**Contact:**  
**Phone:**

## Tasks

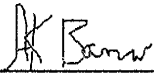
#	Description	Meas.	No	N/A	Yes
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.					
<b>Sample information</b>					
30	Document the monitoring period.	Oct-Dec	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/1/21 1:00am	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/1/21 1:00am	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/1/21 12:35pm	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain 1.31 in	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Parameters</b>					
110	Is sample colorless? If "Failed", describe. <b>Comments: Slight tan color</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120	Is sample odorless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, coarse). <b>Comments: Small amount find sediment</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, coarse). <b>Comments: Small amount fine sediment</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g., 'on the surface' or 'in the sample').		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Labor Report

**Completed:** 10/1/2021 12:35:00 PM

**Report:** Alethea Banar





10/1/2021

Signature / Name

Date

Signature / Name

Date

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

### CERTIFICATION STATEMENT

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

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

Print name and title: Terrill W. Lemke, EPC-CP Storm Water Permitting/Compliance Team Leader

Signature: (See signature on file) Date: \_\_\_\_\_

## Maintenance Details




Requested: 10/1/2021 2:04:00 PM

Target: 11/30/2021

Procedure: MSGP Quarterly Visual  
Assessment (EPC-CP-QP-  
2105 R1 Form 1)

Priority/Type: Normal / Inspection

Department: Utilities and Infrastructure

 MSGP Program RG121.9 TA-60-1 Heavy Equipment Yard Monitored Outfall (022) Substantially Identical Outfall (024) MSGP02401

Last PM: 10/1/2021

Project: Visual Assessments 10/1/21  
(P-MSGP-5523)

Reason: MSGP Quarterly Visual Assessment

Contact:  
Phone:

## Tasks

#	Description	Meas.	No	N/A	Yes
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.					
Sample information					
30	Document the monitoring period.	Oct-Dec	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/1/21 1:00am	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/1/21 1:00am	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/1/21 12:30pm	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain 1.31 in	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parameters					
110	Is sample colorless? If "Failed", describe. <b>Comments: Slight tan color</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120	Is sample odorless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, coarse). <b>Comments: Fine sediment</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, coarse).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g., 'on the surface' or 'in the sample').		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Labor Report

Completed: 10/1/2021 12:30:00 PM

Report: Alethea Banar

10/1/2021

AK Banner

Signature / Name

Date

Signature / Name

Date

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

### CERTIFICATION STATEMENT

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

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

Print name and title: Terrill W. Lemke, EPC-CP Storm Water Permitting/Compliance Team Leader

Signature: (See signature on file) Date: \_\_\_\_\_



## Maintenance Details

Requested: 10/1/2021 2:04:00 PM

Target: 11/30/2021

MSGP Program

Procedure: MSGP Quarterly Visual  
Assessment (EPC-CP-QP-  
2105 R1 Form 1)

Priority/Type: Normal / Inspection

RG121.9

Department: Utilities and Infrastructure

TA-60-1 Heavy Equipment Yard

Last PM: 10/1/2021

Monitored Outfall (022)

Project: Visual Assessments 10/1/21  
(P-MSGP-5523)

Substantially Identical Outfall (025)

MSGP02501

Reason: MSGP Quarterly Visual Assessment

Contact:

Phone:

## Tasks

#	Description	Meas.	No	N/A	Yes
---	-------------	-------	----	-----	-----

The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.

## Sample information

30	Document the monitoring period.	Oct-Dec	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/1/21 1:00am	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/1/21 1:00am	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	10/1/21 12:25pm	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	Rain 1.31 in	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Parameters

110	Is sample colorless? If "Failed", describe. <b>Comments: Slight yellow color</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120	Is sample odorless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, coarse).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, coarse).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g., 'on the surface' or 'in the sample').		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Labor Report

Completed: 10/1/2021 12:25:00 PM

Report: Alethea Banar

AK Banar

Signature / Name

10/1/2021

Date

Signature / Name

Date

Signature / Name

Date

Signature / Name

Date

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

### CERTIFICATION STATEMENT

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

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

Print name and title: Terrill W. Lemke, EPC-CP Storm Water Permitting/Compliance Team Leader

Signature: (See signature on file) Date: \_\_\_\_\_

# Los Alamos National Laboratory


Work Order MSGP-65618

MSGP Monitoring Stations  
Printed 1/5/2022 - 9:51 AM (Duplicate Copy)

## Maintenance Details

**Requested By:** Banar, Alethea on  
1/4/2022 2:37:00 PM

**Target:** 12/31/2021

 MSGP Program


**Taken By:** Banar, Alethea

**Priority/Type:** / Inspection


 RG121.9

**Procedure:** MSGP Quarterly Visual  
Assessment (EPC-CP-  
QP-2105 R1 Form 1)

**Department:** Utilities and Infrastructure

 TA-60-1 Heavy Equipment Yard

**Last PM:** 1/3/2022

 Monitored Outfall (022)

**Project:** Visual Assessments  
10/1/21 (P-MSGP-5523)

 MSGP02201

**Contact:** Banar, Alethea

**Phone:** 699-5836

**Reason:** MSGP Quarterly Visual Assessment

## Tasks

#	Description	Meas.	No	N/A	Yes
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.					
<b>Sample information</b>					
30	Document the monitoring period.	Quarter 2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).	12/24/21 @10:24	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).	12/24/21 @10:24	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).	1/3/22 @14:40	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.	snowmelt .23est	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Parameters</b>					
110	Is sample colorless? If "Failed", describe.	brown	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120	Is sample odorless? If "Failed", provide description (e.g., musty, sewage, sulfur, sour, solvent, petroleum/gas).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
130	Is sample clear? If "Failed" provide description (e.g., slightly cloudy, cloudy, opaque).	slightly cloudy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
150	Is sample free of settled solids? If "Failed" provide description (e.g., fine, coarse).	fine	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, coarse).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g., 'on the surface' or 'in the sample').		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g., flecks, globs).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
190	Is sample free of other obvious indicators of pollution? If "Failed", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Labor Report

**Completed:** 1/3/2022  
2:40:00 PM

**Report:** Marwin Shendo

MARWIN  
SHENDO (Affiliate)  
Digitally signed by MARWIN  
SHENDO (Affiliate)  
Date: 2022 01 05 12:13:33  
-07'00'



Signature / Name

Date

Signature / Name

Date

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

### CERTIFICATION STATEMENT

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

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

Print name and title: Terrill W. Lemke, EPC-CP Storm Water Permitting/Compliance Team Leader

Signature: (See signature on file) Date: \_\_\_\_\_

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

											Corrective Action Initiate Date	Corrective Action Complete Date
Msgp CA#	Facility	Inspection Date	EPC Notify Date	Specific Location	Inspector Name	Identifying Name	Finding Description	Problem Description	Inspection Type	Corrective Action Description		
1991	TA-60-1 Heavy Equipment Yard	23-Jul-21	23-Jul-21		KNIGHT JACOB L	KNIGHT JACOB L	Control measures inadequate to meet non-numeric effluent limitations	Gravel Bags [6000403100095} around outfall 23 in the lower east yard are showing signs of breaking open and need replacing. They appear functional at the moment but should be replaced so spilled contents don't impact the drop inlet.	Routine facility inspection	Replaced broken gravel bags	23-Jul-21	26-Jul-21
2002	TA-60-1 Heavy Equipment Yard	23-Aug-21	23-Aug-21		KNIGHT JACOB L	KNIGHT JACOB L	Control measures inadequate to meet non-numeric effluent limitations	A rusting carbon steel pipe is staged outside of the metal storage canopy in the SE corner of the upper yard on the east side of 60-1.	Routine facility inspection	Cover pipe or stage inside the canopy. It was placed under the canopy after the inspection.	23-Aug-21	23-Aug-21
2001	TA-60-1 Heavy Equipment Yard	23-Aug-21	23-Aug-21		KNIGHT JACOB L	KNIGHT JACOB L	Unauthorized release or discharge	While refueling a LANL truck in the designated refueling area approx. 1 cup of fuel splashed onto the asphalt (this has occurred previously as well).	Routine facility inspection	Absorbent was disposed of and micro-blaze was applied. Crews will utilize spill pads or other controls more pro-actively instead of responding to fuel spillage on asphalt.	23-Aug-21	23-Aug-21
2000	TA-60-1 Heavy Equipment Yard	23-Aug-21	23-Aug-21		KNIGHT JACOB L	KNIGHT JACOB L	Control measures not properly operated or maintained	The rock check dams in the drainage channels up gradient of outfall 25 in the upper west side heavy equipment yard are in need of repair and sediment removal.	Routine facility inspection	Remove sediment and rearrange rock back to functional order so that water flows over the low point of the check dam(s). on 8/21/21 excess sediment was removed and rocks were arranged to functional condition again.	23-Aug-21	24-Aug-21
2009	TA-60-1 Heavy Equipment Yard	17-Sep-21	17-Sep-21		KNIGHT JACOB L	KNIGHT JACOB L	Unauthorized release or discharge	During efforts to calibrate deicer sprayers on ATVs an abnormal amount drained onto pavement and soil in the lower east yard at the heavy equipment shop.	Routine facility inspection	Sweep the pavement and when calibrating the deicer sprayers take efforts to minimize spills of the material. The material was swept with the sweeper truck at 2:30 pm 9/17/2021	17-Sep-21	17-Sep-21

2021	TA-60-1 Heavy Equipment Yard	15-Oct-21	15-Oct-21		KNIGHT JACOB L	KNIGHT JACOB L	Unauthorized release or discharge	A LANL dump truck was delivered after being repaired and parked on the west side sloped area. The tank for the diesel exhaust fluid (2/3 water 1/3 urea - non toxic) was full and it leaked approximately 1 pint or less of fluid onto the pavement.	Routine facility inspection	Spill was cleaned to the extent practicable and treated with micro blaze.	15-Oct-21	15-Oct-21
2020	TA-60-1 Heavy Equipment Yard	15-Oct-21	15-Oct-21		KNIGHT JACOB L	KNIGHT JACOB L	Control measures inadequate to meet non- numeric effluent limitations	Along the south perimeter of the upper yard at TA-60-1 Heavy Equipment there is a fencing replacement project underway. There is some cut metal and debris that needs to be picked up. Also as part of the project the area was cleared of vegetation and there is a lot of trash exposed now that needs cleanup. There was also trash in some drainage areas along the east perimeter of the upper yard.	Routine facility inspection	The trash in the drainage areas was picked up during the inspection. The cleanup along the south perimeter was completed by logistics laborers for the fencing project on 10/19/2021.	15-Oct-21	19-Oct-21
2025	TA-60-1 Heavy Equipment Yard	03-Nov-21	03-Nov-21		KNIGHT JACOB L	KNIGHT JACOB L	Unauthorized release or discharge	A LANL sanitary truck that was parked at the Heavy Equipment yard was started up which pressurized the the Diesel Exhaust Fluid (DEF) system. Once pressurized approx. 1.5 gallons leaked out of a failed gasket on the DEF tank to the asphalt.	Other (describe) :	Absorbents were applied by facility personnel. The gasket and housing on the DEF tank was replaced so that it wouldn't leak again. The release did not reach any storm drains and was confined to pavement. Micro blaze was also applied.	03-Nov-21	03-Nov-21
2035	TA-60-1 Heavy Equipment Yard	15-Nov-21	15-Nov-21		KNIGHT JACOB L	KNIGHT JACOB L	Control measures inadequate to meet non- numeric effluent limitations	In the lower east yard there was some cut aluminum sheets and other metal that were relocated from inside a shed to outside and are uncovered/exposed.	Routine facility inspection	The metal pieces were placed in an enclosure.	15-Nov-21	16-Nov-21
2052	TA-60-1 Heavy Equipment Yard	09-Dec-21	09-Dec-21	Concrete apron for vehicle wash area that drains to oil/water separator at the TA-60-1 Heavy Equipment Yard.	WHEELER HOLLY L	WHEELER HOLLY L	Unauthorized release or discharge	At the NE corner of TA-60-1, there is an area on the concrete apron that has deteriorated and has formed a depression. Water was present in the depression that had an oil sheen on it.	Routine facility inspection	Oil absorbent pads were applied to the sheen at 2:40 pm. Sheen was verified removed morning of 12/10/2021. An existing FSR is in place to fix the concrete and install a new berm.	09-Dec-21	10-Dec-21

2053	Yard	09-Dec-21	09-Dec-21	TA-60-1 Heavy Equipment	East side of TA-60-1 outside of the battery shed.	WHEELER HOLLY L	WHEELER HOLLY L	Unauthorized release or discharge	On the east side of TA-60-1, outside of the battery shed, three batteries were being stored outside of the shed and were leaking.	Routine facility inspection	The batteries were placed in the shed, materials used to absorb the spill were disposed of and the acid was neutralized.	09-Dec-21	09-Dec-21
------	------	-----------	-----------	-------------------------------	---	--------------------	--------------------	--------------------------------------	---	-----------------------------------	---	-----------	-----------

## **CERTIFICATION FOR CORRECTIVE ACTIONS**

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

<b>Printed Name:</b>	<u>Brian Watkins</u>	<b>Title:</b>	<u>Logistics Division Leader</u>
	<b>BRIAN WATKINS</b>		
	<small>Digitally signed by BRIAN WATKINS (Affiliate)</small>		
<b>Signature:</b>	<u>(Affiliate)</u>	<b>Date:</b>	<u>1/18/2022</u>
	<small>Date: 2022.01.18 10:06:31 -07'00'</small>		



Attachment 10: SCHEDULED MAINTENANCE LOG

<b>Date</b>	<b>Control Measure or Equipment Description</b> (include location where appropriate)	<b>Action Taken/Comments</b>	<b>Action Taken By</b> (printed name & Z no.)
7/23/21	Pavement sweeping	Swept with pick up sweeper truck	R&G
8/23/21	Petro barrier boxes drop inlet	All sediment removed in the area in prep. for new units	60-1 crews
8/27/21	Pavement sweeping	Swept with pick up sweeper truck	R&G
9/16/21	Petro barrier box units at drop inlet	2 new units installed	60-1 crews
9/17/21	All MetalLox wattles	Met-lox wattles replaced with new	BA
12/22/21	Pavement sweeping	Swept with pick up sweeper truck	R&G

Attachment 11: **TRAINING DOCUMENTATION**

Information on employees training is available upon request

**AGENDA**  
**FOR**  
**TA-60-0001 Heavy Equipment Yard MSGP TRAINING**

1. Brief overview of the National Pollutant Discharge Elimination System, Multi-Sector General Permit (MSGP)
  - a. The MSGP is a nation-wide general permit
  - b. New permit was issued in January of 2021
    - i. LANL received authorization to discharge stormwater from specific industrial activities, to meet Clean Water Act provisions under the new permit, on June 25, 2021
  - c. EPA is the regulatory authority
    - i. NM Environment Department is delegated authority to conduct inspections for them.
  - d. This facility (TA-60-1 HEY) falls under Section P - Land Transportation and Warehousing, and Sector AA – Fabricated Metal Products
    - i. Because the MSGP is a “general” permit, every Metal Fabrication Shop authorized to discharge under the MSGP has to meet the same requirements.
2. Purpose of the MSGP is to MINIMIZE off-site migration of pollutants
  - a. Ensure controls are always adequate and functional (not just after identification of a condition requiring corrective action)
3. Key Elements of the MSGP
  - a. Industrial sites must have a Stormwater Pollution Prevention Plan (SWPPP)
  - b. Stormwater discharge from the site is monitored and analytical results are reported to EPA
  - c. Monthly inspections are performed at the site by Kelkenny Bileen (your Deployed Environmental Professional)
  - d. Conditions requiring corrective action are identified, documented, and addressed
    - i. These could include housekeeping issues (presence of trash, shavings or small metal pieces found on the ground, abandoned materials or equipment, etc.
    - ii. Raw material not appropriately covered
    - iii. Spill identified
    - iv. Permit limit exceedance for constituents monitored for as described in Section 4.7 of the SWPPP (i.e., aluminum, copper, Nitrate-Nitrite, zinc)
  - e. Training requirement
    - i. (You all may be wondering why you are here) The permit requires personnel who implement requirements of the permit to be trained
    - ii. You all are or will be managing industrial materials (raw material metal, new and used oil lubricants, gasoline, metal recycle and other dumpsters, etc.) and conducting activities on an industrial site (TA-60-1 Heavy Equipment Yard)
4. What does the SWPPP do?

- a. Identifies a Pollution Prevention Team
    - i. This team consists of Jacob Knight (DEP), Larry Velasquez, Chris Sena, Andy Archuleta, and Holly Wheeler (MSGP Program Lead). Together, this team is instrumental in ensuring implementation of the MSGP, SWPPP, and associated stormwater controls.
  - b. Identifies potential pollutant sources (*Ask trainees what they think these sources are*)
    - i. Vehicle or equipment pollutants (spills of fuel, oil, grease, fluids (transmission and hydraulic), anti-freeze and associated heavy metals)
    - ii. Storage of raw material (metal for fabrication)
    - iii. The metal for recycle roll-off bin
    - iv. Dumpsters containing trash and/or cardboard
    - v. Sediment
  - c. Describes stormwater controls used to reduce/eliminate pollutants in stormwater discharges
    - i. Review SWPPP map and walk down controls at the site. Discuss their purpose and when they should be repaired or replaced.
      - 1. Covered dumpsters
      - 2. Tarps, or in the future, transportainers
      - 3. Rock check dams
      - 4. Petro barrier boxes
      - 5. Oil/water separator
      - 6. Rip Rap rundowns and drainages
      - 7. Asphalt berms
      - 8. Gravel bags
      - 9. Routine maintenance like sweeping of sediment loaded areas or where metal fines may accumulate after fabrication
  - d. Contains procedures the site uses to comply with the terms/conditions of the permit
    - i. Procedures by EPC-CP specifically identifying how permit conditions are implemented
      - a. How to conduct inspections, spill investigations, visual assessments, document conditions requiring corrective actions, obtain samples, etc.
  - e. Contains documentation that permit requirements have been met, including:
    - i. NOI and associated correspondence
    - ii. Completed visual assessments and Routine Facility Inspections
    - iii. Annual reports
    - iv. All documentation associated with conditions requiring corrective action
    - v. Maintenance of control measures
    - vi. Documentation of training given
5. What can you do to ensure good housekeeping requirements in the MSGP are met?
- a. Keep the outside area of the Metals Fabrication area in an orderly condition. (*Ask Trainees what they would do if they noticed waste, trash, or debris*)
  - b. Pick up garbage, debris, and floatables when observed on-site and in drainages.

- c. Check trucks, loaders, forklifts and other heavy equipment for leaks prior to using them. Inspect delivered equipment for leaks.
  - d. Monitor function of the oil/water separator
  - e. Only use well maintained trucks and heavy equipment for transfer operations.
- 6. What are industrial materials and activities?
  - a. Metal, cutting oil, welding supplies and other products used during metal fabrication;
  - b. Fueling and oil storage areas;
  - c. Vehicle and equipment washing;
  - d. Locations where trash and debris is stored;
  - e. Metal and used tires for recycling bins;
  - f. Drum storage areas;
  - g. Locations of material handling equipment;
  - h. Fabrication areas;
- 7. How can you properly manage industrial materials?
  - a. Keep raw metal (steel) and fabricated product inside a building or covered.
    - i. Potential to use 10 by 10 foot weighted tarps.
    - ii. Contain fines from cutting, grinding and welding on a tarp or sweep fabrication areas and remove fines after fabrication work.
    - iii. Place fines in a metal drum or 5 gallon metal bucket inside the building. Once full, seal the bucket or drum and place it in the metal for recycle bin. (Ask Trainees why they should not place metal fines directly in the metal for recycle roll-off bin.)
    - iv. Do not overfill the metal for recycle roll off bin.
  - b. Potential for spills to occur from equipment.
    - i. (Ask Trainees what they would do if they noticed a truck, forklift, or front-end loader was leaking).
      - 1. Call the EPC-CP spills pager at 505-664-7722.
      - 2. Provide immediate spill response with spill kits.
      - 3. All complex/emergency spills or releases are reported to the Emergency Operations Support Center (EOSC) at 667-2400.
      - 4. For fire or explosion, call 911 or activate fire pull box.
      - 5. Clean up spill. If too large call your Waste Management Coordinator and/or the EOSC
      - 6. The EOSC, FOD and EPC-CP will determine if required notification are needed relative to the spill.
- 8. Contact information.
  - a. Contact Jacob (257-8985), the Deployed Environmental Professional, if you have any questions about environmental requirements.
  - b. Contact Holly Wheeler (667-1312) or [hbenson@lanl.gov](mailto:hbenson@lanl.gov) for specific questions about the MSGP.

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

The active URL to access the permit is:

[2021 Multi-Sector General Permit](#)



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

LA-UR-17-29454

*Approved for public release;  
distribution is unlimited.*

October 2017

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



Cover photo: Mexican Spotted Owls at Los Alamos National Laboratory

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

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

*An Affirmative Action/Equal Opportunity Employer*

Los Alamos National Laboratory, an affirmative action/equal opportunity employer, is operated by the Los Alamos National Security, LLC, for the National Nuclear Security Administration of the U.S. Department of Energy under contract DE-AC52-06NA25396. By acceptance of this article, the publisher recognizes that the U.S. Government retains a nonexclusive, royalty-free license to publish or reproduce the published form of this contribution, or to allow others to do so, for U.S. Government purposes. Los Alamos National Laboratory requests that the publisher identify this article as work performed under the auspices of the U.S. Department of Energy. Los Alamos National Laboratory strongly supports academic freedom and a researcher's right to publish; as an institution, however, the Laboratory does not endorse the viewpoint of a publication or guarantee its technical correctness.

# Contents

Acronyms and Terms .....	vi
<b>I. Threatened and Endangered Species Habitat Management Plan General Overview .....</b>	<b>1</b>
1.0 Introduction.....	1
2.0 Role of Site Plans in the HMP .....	1
3.0 Description of Areas of Environmental Interest .....	1
3.1 Definition and Role of Developed Areas in AEI Management .....	2
3.2 General Description of Buffer Areas and Allowable Buffer Area Development .....	2
3.3 Emergency Actions .....	2
4.0 Implementation of Site Plans .....	3
4.1 Roles and Responsibilities .....	3
4.2 If an Activity Does Not Meet Site Plan Guidelines .....	4
4.3 Dissemination of Information .....	4
5.0 Changes in the HMP since Implementation.....	4
6.0 Data Management .....	5
<b>II. Area of Environmental Interest Site Plan for the Mexican Spotted Owl.....</b>	<b>5</b>
1.0 Species Description—Mexican Spotted Owl.....	5
1.1 Status.....	5
1.2 General Biology .....	5
1.3 Threats.....	6
2.0 Impact of Human Activities .....	6
2.1 Introduction.....	6
2.2 Impacts on Habitat Quality .....	6
2.2.1 Development .....	6
2.2.2 Ecological Risk .....	7
2.2.3 Disturbance .....	7
2.2.3.1 Pedestrians and Vehicles.....	7
2.2.3.2 Aircraft.....	7
2.2.3.3 Explosives.....	8
2.2.3.4 Other Sources of Noise .....	9
2.2.3.5 Artificially Produced Light.....	10
3.0 AEI General Description for Mexican Spotted Owl .....	11
3.1 Method for Identifying a Mexican Spotted Owl AEI .....	11
3.2 Location and Number of Mexican Spotted Owl AEIs .....	12
4.0 AEI Management .....	12
4.1 Overview.....	12
4.2 Definition and Role of Occupancy in AEI Management .....	12
4.3 Introduction to AEI Management Guidelines .....	12
4.4 Definition of and Restrictions on Habitat Alterations.....	13
4.4.1 Definition of Habitat Alterations .....	13
4.4.2 Fuels Management Practices to Reduce Wildfire Risk .....	13
4.4.3 Utility Corridors.....	14

4.4.4 Restrictions on Habitat Alterations .....	14
4.5 Definition of and Restrictions on Disturbance Activities .....	15
4.5.1 Definitions of Disturbance Activities.....	15
4.5.2 Activity Table .....	17
4.6 Protective Measures .....	17
5.0 Levels of Development in AEI Core and Buffers.....	18
5.1 Allowable Habitat Alteration in the Buffer Areas .....	18
<b>III. Area of Environmental Interest Site Plan for the Southwestern Willow Flycatcher .....</b>	<b>19</b>
1.0 Species Description—Southwestern Willow Flycatcher .....	19
1.1 Status.....	19
1.2 General Biology .....	19
1.3 Threats.....	20
2.0 Impact of Human Activities.....	20
2.1 Introduction.....	20
2.2 Impacts on Habitat Quality .....	21
2.2.1 Development .....	21
2.2.2 Ecological Risk .....	21
2.2.2.1 Ecorisk Assessment .....	21
2.2.3 Disturbance .....	22
2.2.3.1 Pedestrians and Vehicles.....	22
2.2.3.2 Aircraft.....	22
2.2.3.3 Explosives.....	22
2.2.3.4 Other Sources of Noise .....	22
2.2.3.5 Artificially Produced Light.....	22
3.0 AEI General Description for the Southwestern Willow Flycatcher.....	22
3.1 Method for Identifying the Southwestern Willow Flycatcher AEI.....	23
3.2 Location of the Southwestern Willow Flycatcher AEI.....	23
4.0 AEI Management.....	23
4.1 Overview .....	23
4.2 Definition and Role of Occupancy in AEI Management .....	23
4.3 Introduction to AEI Management Guidelines .....	24
4.4 Definition of and Restrictions on Habitat Alterations.....	24
4.4.1 Definition of Habitat Alterations .....	24
4.4.2 Fuels Management Practices to Reduce Wildfire Risk.....	24
4.4.3 Utility Corridors.....	24
4.4.4 Restrictions on Habitat Alterations .....	25
4.5 Definition of and Restrictions on Disturbance Activities .....	25
4.5.1 Definition of Disturbance Activities .....	25
4.5.2 Activity Table .....	26
4.6 Protective Measures .....	27
5.0 Southwestern Willow Flycatcher AEI Description.....	28
5.1 Pajarito Canyon Southwestern Willow Flycatcher AEI.....	28

5.1.1 Allowable Habitat Alteration in the Buffer Area .....	28
<b>IV. Area of Environmental Interest Site Plan for the Jemez Mountains Salamander .....</b>	<b>28</b>
1.0 Species Description—Jemez Mountains Salamander .....	28
1.1 Status.....	28
1.2 General Biology .....	28
1.3 Threats.....	29
2.0 Impact of Human Activities .....	29
2.1 Introduction.....	29
2.2 Impacts on Habitat Quality .....	29
2.2.1 Development .....	29
2.2.2 Pedestrians and Vehicles.....	29
2.2.3 Severe Wildland Fire and Wildfire Suppression.....	30
2.3 Impacts on Individual Salamanders .....	30
2.3.1 Disease .....	30
2.3.2 Destruction of Individual Salamanders.....	30
3.0 AEI General Description for the Jemez Mountains Salamander .....	30
3.1 Method for Identifying a Jemez Mountains Salamander AEI.....	31
3.2 Location and Number of Jemez Mountains Salamander AEIs .....	32
4.0 AEI Management.....	32
4.1 Overview.....	32
4.2 Definition and Role of Occupancy in AEI Management .....	32
4.3 Definition and Role of Developed Areas in AEI Management .....	32
4.4 General Description of Core and Buffer Areas and Allowable Area Development .....	33
4.5 Emergency Actions.....	33
4.6 Introduction to AEI Management Guidelines .....	33
4.7 Definition of and Restrictions on Habitat Alterations.....	33
4.7.1 Definition of Habitat Alterations .....	33
4.7.2 Fuels Management Practices to Reduce Wildfire Risk.....	34
4.7.3 Utility Corridors.....	34
4.7.4 Restrictions on Habitat Alterations.....	34
<b>References Cited.....</b>	<b>35</b>
<b>APPENDIX.....</b>	<b>40</b>

## Figures

Figure 1. Process flowchart for determining site plan requirements .....	3
Figure A-1. Most recent map of all AEIs at LANL .....	41

## Tables

Table 1. Restrictions on Activities in Undeveloped Occupied Mexican Spotted Owl AEIs.....	17
Table 2. Restrictions on Activities in Undeveloped Occupied Southwestern Willow Flycatcher AEI.....	27
Table A-1. The Percentage of each Food Type Found in Mexican Spotted Owl Food Remains at LANL.....	40
Table A-2. Preliminary Light Measurements in ftc for Mexican Spotted Owl Site Plan .....	40



## ACRONYMS AND TERMS

AEI	area of environmental interest
Bd	Batrachochytrium dendrobatidis (Chytrid Fungus)
DARHT	Dual-Axis Radiographic Hydrodynamic Test (Facility)
dB	decibel
dB(A)	A-weighted decibel
dB(C)	C-weighted decibel
DDT	(dichloro-diphenyl-trichloroethane)
DOE	U.S. Department of Energy
ESA	Endangered Species Act of 1973
fc	foot candles
Field Office	U.S. Department of Energy Los Alamos Field Office
FR	Federal Register
GIS	geographic information system
HMP	Threatened and Endangered Species Habitat Management Plan
HVAC	heating, ventilation, and air conditioning
LANL	Los Alamos National Laboratory
LANS	Los Alamos National Security, LLC
NEPA	National Environmental Policy Act of 1969
PCBs	polychlorinated biphenyls
TNT	trinitrotoluene(2,4,6-)
USFWS	U.S. Fish and Wildlife Service

## **I. THREATENED AND ENDANGERED SPECIES HABITAT MANAGEMENT PLAN GENERAL OVERVIEW**

### **1.0 Introduction**

Los Alamos National Laboratory's (LANL) Threatened and Endangered Species Habitat Management Plan (HMP) fulfills a commitment made to the U.S. Department of Energy (DOE) in the "Final Environmental Impact Statement for the Dual-Axis Radiographic Hydrodynamic Test Facility Mitigation Action Plan" (DOE 1996). The HMP received concurrence from the U.S. Fish and Wildlife Service (USFWS) in 1999 (USFWS consultation numbers 2-22-98-I-336 and 2-22-95-I-108). This 2017 update retains the management guidelines from the 1999 HMP for listed species, and updates some descriptive information.

### **2.0 Role of Site Plans in the HMP**

The purpose of the HMP is to provide a management strategy for Endangered Species Act (ESA) compliance through the protection of threatened and endangered species and their habitats on LANL property. The HMP consists of site plans for federally listed threatened or endangered species with a moderate or high probability of occurring at LANL. The following federally listed threatened or endangered species currently have site plans at LANL: Mexican Spotted Owl (*Strix occidentalis lucida*), Southwestern Willow Flycatcher (*Empidonax trailii extimus*), and Jemez Mountains Salamander (*Plethodon neomexicanus*). Site plans provide guidance to ensure that LANL operations do not adversely affect threatened or endangered species or their habitats.

The Black-footed Ferret (*Mustela nigripes*) is federally listed as endangered. However, no sightings of Black-footed Ferrets have been reported in Los Alamos County for more than 50 years. In addition, no large prairie dog towns, prime habitat for Black-footed Ferrets, have been observed at LANL. Therefore, there is no site plan for this species.

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

### **3.0 Description of Areas of Environmental Interest**

Suitable habitats for federally listed threatened and endangered species have been designated as areas of environmental interest (AEIs). AEIs are geographical units at LANL that are managed for the protection of federally listed species and consist of core habitat areas and buffer areas. The purpose of the core habitat is to protect areas essential for the existence of the specific threatened or endangered species. This includes the appropriate habitat type for breeding, prey availability, and micro-climate conditions. The purpose of buffer areas is to protect core areas from undue disturbance and habitat degradation.

Site plans identify restrictions on activities within the AEIs. The USFWS reviewed allowable activities and provided concurrence that these activities are not likely to adversely affect federally listed species. Activities discussed in site plans include day-to-day activities causing

disturbance (hereafter referred to as “disturbance activities”), such as access into an AEI, and long-term impacts, such as habitat alteration.

### **3.1 Definition and Role of Developed Areas in AEI Management**

Developed areas include all building structures, paved roads, improved gravel roads, paved and unpaved parking lots, and firing sites. The extent of developed areas in each AEI was determined using two methods. First, LANL geographic information system (GIS) analysts placed a 15-m (49-ft) border around all buildings and parking lots. For paved and improved gravel roads, the developed area was defined as the area to a roadside fence, if one exists within 9 m (30 ft) of the road, or 5 m (15 ft) on each side of the road if there is no fence within 9 m (30 ft). If an area of highly fragmented habitat was enclosed by roads, a security fence, or connected buildings, that area was also classified as developed. Developed areas at firing sites were defined as a circle with a 91-m (300-ft) radius from the most centrally located firing pad. Second, LANL GIS analysts overlaid scanned orthophotos onto a map of the Los Alamos area and digitized all areas that appeared developed. These two information sources were overlaid and combined, so that areas classified as developed by either method were considered developed in final maps and analyses. Some areas were confirmed by ground surveys, such as the firing sites.

Developed areas occur in the core and/or buffer of all AEIs. However, developed areas do not constitute suitable habitat for federally listed species. Current ongoing activities in developed areas constitute a baseline condition for the AEIs and are not restricted. New activities, including further development within already existing developed areas, are not restricted unless they impact undeveloped portions of an AEI core. For example, if light or noise from a new office building in a developed area were to raise levels in an undeveloped core area, those light and noise levels would be subject to the guidelines on habitat alterations.

### **3.2 General Description of Buffer Areas and Allowable Buffer Area Development**

The purpose of buffer areas is to protect core areas from undue disturbance or habitat degradation. The current levels of development in buffer and core areas represent baseline conditions for this HMP. No further development is allowed in the core area under the guidelines of this HMP. A limited amount of development is allowed in buffer areas. Under the guidelines of this HMP, individual development projects are limited to 2 ha (5 ac) in size, including a 15-m (49-ft) developed-area border around structures and a 5-m (15-ft) developed-area border around paved and improved gravel roads. Projects greater than 2 ha (5 ac) in size require individual review for ESA compliance (see exceptions for fuels management activities and utility corridor maintenance). New development projects in AEI buffer areas must be reported to Los Alamos National Security, LLC (LANS) biologists for tracking (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

### **3.3 Emergency Actions**

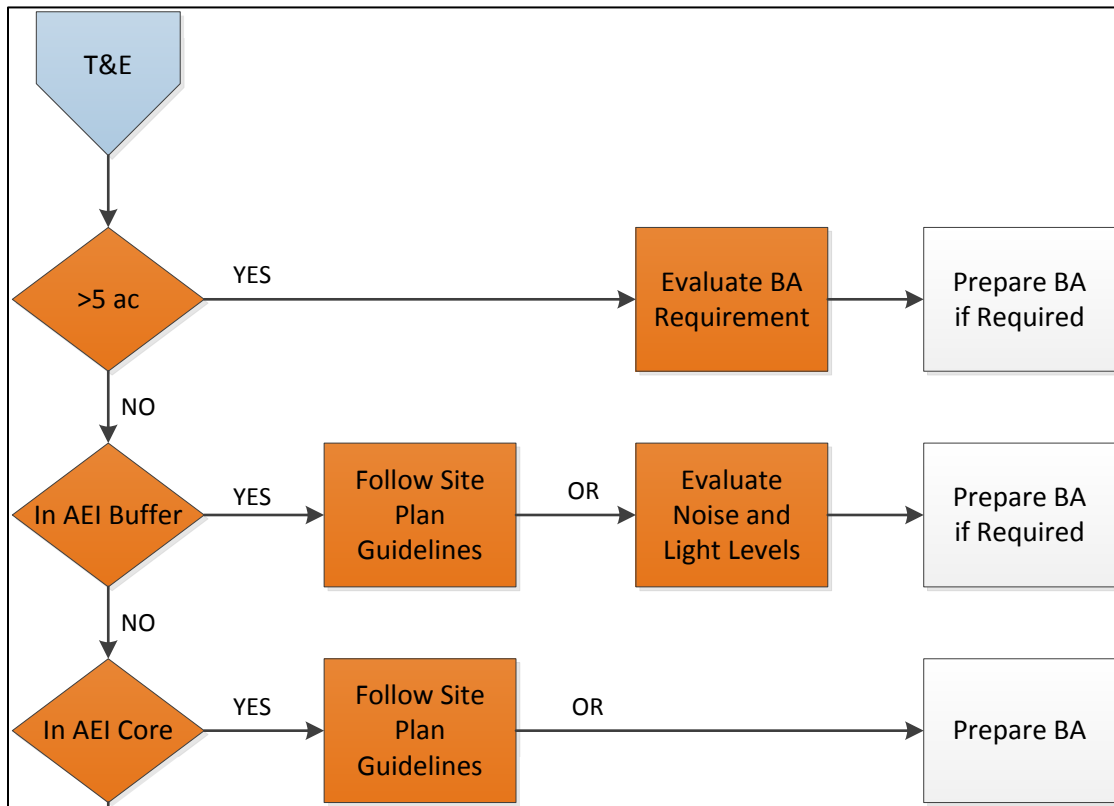
Managers may activate emergency actions if safety and/or property is immediately threatened by something occurring within an AEI (for example, wildfire, water line breakage, etc.). Contact a LANS biologist (<http://int.lanl.gov/environment/bio/controls/index.shtml>), the Environmental Stewardship Group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

the Emergency Management Office (505-667-6211); this office will then communicate with the appropriate LANL and DOE Field Office personnel.

## 4.0 Implementation of Site Plans

### 4.1 Roles and Responsibilities

LANL's facility managers and operational staff are responsible for ensuring that activities are reviewed for compliance with all applicable site plans. Figure 1 illustrates the process for utilizing site plans. If activities follow approved guidance, there is no requirement for additional ESA regulatory compliance. However, additional National Environmental Policy Act (NEPA), cultural resources, wetlands, or other regulatory compliance actions may be required.



**Figure 1. Process flowchart for determining site plan requirements**

If an activity or project occurs outside of all LANL AEIs and will not impact habitat within an AEI, it does not have to be reviewed for ESA compliance unless it is a large project. Projects that are larger than 2 ha (5 ac) or cost more than \$5 million require an individual ESA compliance review, even if they are not located within an AEI.

LANL's facility managers are responsible for determining if operations within their geographic and/or programmatic area of responsibility comply with the guidelines in these site plans. Submission of a project into the integrated review tool for a new or modified project is required under Program Description 400 (LANL 2016) and allows managers to identify the requirements within their project area. Deployed environmental professionals and core LANS biologists are

available to support facility managers. If activities follow site plan guidelines, they do not require any additional ESA regulatory compliance action. However, NEPA, cultural resources, wetlands, or other regulatory compliance actions are not addressed in site plans and additional compliance actions may be required. It is the responsibility of the project leader or facility management staff to ensure that all requirements are satisfied. If you have questions, contact biological, cultural, NEPA, or other environmental subject matter experts. Contacts can be found at <http://int.lanl.gov/environment/compliance/ier/index.shtml>.

A single facility may have one or more AEIs within its boundary and the AEIs may be for different species. Some AEIs overlap. In areas where overlap occurs, project managers must follow the guidelines for AEIs of all involved species.

#### **4.2 If an Activity Does Not Meet Site Plan Guidelines**

If a project reviewer determines that an activity or project cannot meet the guidelines in applicable site plans, LANS biologists evaluate that activity individually for compliance with the ESA. Results of the evaluation of potential impacts allow LANS biologists to make recommendations to the DOE Field Office Biological Resources Program Manager regarding the need for USFWS consultation. An evaluation may result in 1) a DOE Field Office determination that there is no effect and the activity can proceed, 2) a DOE Field Office suggestion for modifications of the action to avoid adverse effects so that it can proceed, or 3) a DOE Field Office decision to prepare a biological assessment for the activity and submit it to the USFWS for concurrence. Fieldwork and preparation of a biological assessment can take a few months with an additional 2 to 12 months for DOE Field Office review and then final USFWS concurrence.

#### **4.3 Dissemination of Information**

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

### **5.0 Changes in the HMP since Implementation**

The HMP received concurrence from USFWS and was first implemented in 1999. Since that time, both the Peregrine Falcon (*Falco peregrinus*) and the Bald Eagle (*Haliaeetus leucocephalus*) have been delisted. Site plans for those species have been removed from LANL's HMP. Both species are protected at LANL under the Migratory Bird Treaty Act, and the Bald Eagle is also protected under the Bald and Golden Eagle Protection Act.

In 2005, the USFWS concurred with DOE's proposal for updated Mexican Spotted Owl habitat boundaries based on a revised analysis of Mexican Spotted Owl habitat quality within DOE property around LANL (USFWS consultation number 22420-2006-I-0010).

In 2012, the USFWS concurred with DOE's proposal to modify the habitat boundaries for the Los Alamos Canyon Mexican Spotted Owl AEI due to changes from the fire response activities after the Las Conchas wildfire (USFWS consultation number 02ENNM00-2012-IE-0088).

In 2013, the USFWS concurred with the DOE's new site plan for the Jemez Mountains Salamander and its addition to LANL's HMP (USFWS consultation number 02ENNM00-2014-I-0014).

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

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

## **6.0 Data Management**

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

# **II. AREA OF ENVIRONMENTAL INTEREST SITE PLAN FOR THE MEXICAN SPOTTED OWL**

## **1.0 Species Description—Mexican Spotted Owl**

### **1.1 Status**

In 1993, the USFWS determined the Mexican Spotted Owl to be a threatened species under the authority of the ESA, as amended (58 Federal Register [FR] 14248). In 1995, the USFWS released its final recovery plan for the owl (USFWS 1995), which was revised in 2012 (USFWS 2012). The USFWS most recently designated critical habitat for Mexican Spotted Owl in 2004 (69 FR 53181).

### **1.2 General Biology**

The Mexican Spotted Owl is found in northern Arizona, southeastern Utah, and southwestern Colorado south through New Mexico, west Texas, and into Mexico. It is the only subspecies of Spotted Owl recognized in New Mexico (USFWS 1995).

The Mexican Spotted Owl generally inhabits mixed conifer and ponderosa pine- (*Pinus ponderosa*; Lawson & C. Lawson) Gambel oak (*Quercus gambelli*; Nutt.) forests in mountains and canyons. High canopy closure, high stand diversity, multilayered canopy resulting from an uneven-aged stand, large mature trees, downed logs, snags, and stand decadence as indicated by the presence of mistletoe are characteristics of Mexican Spotted Owl habitat. Some owls have been found in second-growth forests (i.e., younger forests that have been logged); however, these areas were found to contain characteristics typical of old-growth forests. Mexican Spotted Owls in the Jemez Mountains prefer cliff faces in canyons for their nest sites (Johnson and Johnson 1985). The recovery plan for the Mexican Spotted Owl recommends that mixed conifer and pine-oak woodland types on slopes greater than 40 percent be protected for the conservation of this owl.



A mated pair of adult Spotted Owls may use the same home range and general nesting areas throughout their lives. A pair of owls requires approximately 800 ha (1,976 ac) of suitable nesting and foraging habitat to ensure reproductive success. Incubation is carried out by the female. The incubation period is approximately 30 days and most eggs hatch by the end of May. Most owlets fledge in June, 34 to 36 days after hatching (USFWS 1995). The owlets are “semi-independent” by late August or early September, although juvenile begging calls have been heard as late as September 30. Young are fully independent by early October. The non-breeding season runs from September 1 through February 28. Although seasonal movements vary among owls, most adults remain within their summer home ranges throughout the year.

The diet of Mexican Spotted Owls nesting in canyons consists primarily of woodrats (*Neotoma* spp.) and deer mice (*Peromyscus* spp.) with lesser amounts of rabbits, birds, reptiles, and arthropods (Willey 2013). The relative abundance of prey types in Mexican Spotted Owl pellets collected at LANL are listed in Table A-1 in the appendix. Ganey and Balda (1994) found core areas of individuals (i.e., where owls spent 60 percent of their time) averaged 134 ha (331 ac), and core areas for pairs averaged 160 ha (395 ac).

### **1.3 Threats**

The Mexican Spotted Owl was listed as threatened because of destruction and modification of habitat caused by timber harvest, wildfires, increased predation on owls associated with habitat fragmentation, and a lack of adequate protective regulations.

## **2.0 Impact of Human Activities**

### **2.1 Introduction**

The primary threats to Mexican Spotted Owls on LANL property are 1) impacts to habitat quality from LANL operations and 2) disturbance of nesting owls. This section provides a review and summary of scientific knowledge of the effects of various types of human activities on the Mexican Spotted Owl and provides an overview of the current levels of activities at LANL.

### **2.2 Impacts on Habitat Quality**

#### **2.2.1 Development**

The type of habitat used by Mexican Spotted Owls, late seral stage forests with large trees, is usually not found in large quantities near developed areas or near areas that have had recent agricultural or forest product extraction land uses. Therefore, Mexican Spotted Owls are generally not found near developments. Whether it is the development or a lack of suitable habitat that discourages colonization of these areas by Mexican Spotted Owls is unknown.

Areas of LANL vary from remote, undeveloped areas to heavily developed and/or industrialized facilities. Most LANL facilities are situated atop mesas, primarily in the northern and western portion of the DOE property. LANL is bounded by developed residential, industrial, and retail areas along its northern boundary (the town of Los Alamos) and by residential and retail development along a portion of its eastern boundary (the town of White Rock). Three major paved roads traverse LANL from northeast to southwest. Sandia, Pajarito, and Los Alamos canyons have paved roads within AEIs, and several AEIs have dirt roads along at least a portion

of the canyon bottom. AEIs containing paved or dirt roads in the canyon bottoms have not been occupied at LANL (Hathcock et al. 2010).

### **2.2.2 Ecological Risk**

There is no specific information on the impact of chemicals on the Mexican Spotted Owl, although experience with other raptor species suggests that exposure to polychlorinated biphenyls (PCBs), dichloro-diphenyl-trichloroethane (DDT) and its derivatives, and other organophosphate or organochlorine pesticides would probably be harmful. Exposure to other chemicals could also be harmful (Cain 1988).

LANS subject matter experts completed three ecological risk assessments that included the Mexican Spotted Owl between 1997 and 2009. The ecological risk assessment process involves using computer modeling to assess potential effects to animals from chemicals of potential concern that have been detected in the environment. All of the following ecological risk assessments concluded that, on average, no appreciable impact is expected to Mexican Spotted Owls from chemicals of potential concern (Gallegos et al. 1997; Gonzales et al. 2004; Gonzales et al. 2009).

### **2.2.3 Disturbance**

#### **2.2.3.1 Pedestrians and Vehicles**

Based on work with other raptors, LANS biologists assume that Mexican Spotted Owls would likely be disturbed by the approach of either pedestrians or vehicles. At an equal distance, pedestrians are frequently more disturbing to raptors than vehicles (Grubb and King 1991). Brown and Stevens (1997) reported that during surveys in Grand Canyon National Park, 22 times more Bald Eagles were found in canyon reaches with low human recreational use compared to reaches with moderate to high human recreational use. Human activity 100 m (328 ft) from Bald Eagle nests in Alaska caused clear and consistent changes in behavior of breeding eagles (Steidl and Anthony 2000).

Swarthout and Steidl (2001) found that both juvenile and adult roosting Mexican Spotted Owls were unlikely to alter their behavior in the presence of a single hiker at distances greater than 55 m (180 ft). Swarthout and Steidl (2003) concluded that cumulative effects of high levels of short-duration recreational hiking near Mexican Spotted Owl nests may be detrimental.

Many canyon bottoms and mesa tops at LANL have dirt roads traversing them. Most of these roads are gated; however, these roads are accessible to LANL employees and some of them are accessible to the public on foot or by bike. LANS biologists found that AEIs are occupied less often if there is recreational access into a canyon (Hathcock et al. 2010).

#### **2.2.3.2 Aircraft**

Ground-based disturbances appear to impact raptor reproductive success more than aerial disturbances (Grubb and King 1991). Grubb and Bowerman (1997) concluded that an exclusion of aircraft within 600 m (1,968 ft) of Bald Eagle nest sites would limit Bald Eagle response frequency to 19 percent.

Delaney et al. (1999) found that for Mexican Spotted Owls, chainsaws consistently elicited higher response rates than helicopters at similar distances. Owl flush rates did not differ between nesting and non-nesting seasons. No owls flushed when noise stimuli (helicopter or chainsaws) were at distances greater than 105 m (344 ft). Distance was generally a better predictor of owl response to helicopter overflights than sound level.

LANL is restricted airspace and planes infrequently fly less than 609 m (2,000 ft) above ground level. The County of Los Alamos operates an airport along the northern edge of LANL. The airport is located on the southern rim of Pueblo Canyon. Most flights approach and depart to the east of the airport, over the Rio Grande.

### 2.2.3.3 Explosives

There is currently no specific information available on the reaction of Mexican Spotted Owls to explosives detonation. Explosive blasts set off 120 to 140 m (393 to 459 ft) from active Prairie Falcon (*Falco mexicanus*) nests caused perched Prairie Falcons to flush from perches 79 percent of the time, and, in 26 percent of the cases, caused incubating Prairie Falcons to flush from nests. Measured sound levels at aerie entrances during blasts ranged from 129 to 141 decibel (dB) (Holthuijzen et al. 1990). Explosives blasting for dam construction 560 to 1,000 m (1,837 to 3,280 ft) from active Prairie Falcon nests caused a change in behavior 26 percent of the time, and birds flushed in 17 percent of all cases. No incubating birds flushed (Holthuijzen et al. 1990). Brown et al. (1999) found little activity change in roosting or nesting Bald Eagles and no population-level impacts from weapons detonations at the Aberdeen Proving Ground. Holthuijzen et al. (1990) found that a 167-g (5.89-oz) charge of Kinestik produced noise levels between 138 and 141 dB at 100 m (328 ft), and that a 500-g (17.6-oz) charge of trinitrotoluene(2,4,6-) (TNT) produced noise levels between 144 and 146 dB at 100 m (328 ft). A 20-kg (44-lb) charge of TNT produced noise levels that measured 163 dB at 100 m (328 ft) (Paakkonen 1991).

Measurements of noise levels during explosives testing were conducted at three locations at LANL using quantities of high explosives ranging from 4.5 to 67.5 kg (10 to 148 lb) of TNT during six shots. Noise levels increased during the test from a background level of 31 A-weighted decibel [dB(A)]<sup>1</sup> to a range between 64 and 71 dB(A) during shots at a distance of 1.8 km (1.1 mi). At a distance of 4.3 km (2.67 mi), noise levels rose from a background range of 35 to 64 dB(A) to a range of 60 to 63 dB(A) (Vigil 1995). At a distance of 6.7 km (4.16 mi), noise levels rose from a background range of 38 to 51 dB(A) to a range of 60 to 71 dB(A) (Burns 1995). LANS biologists estimated that the noise from a shot at the Dual-Axis Radiographic Hydrodynamic Test (DARHT) Facility would be 150 dB(A) at the source and 80 dB(A) at 400 m (1,312 ft) (Keller and Risberg 1995). LANS biologists found that Mexican Spotted Owl AEIs located within the explosives testing buffer area were occupied more frequently than AEIs in other locations (Hathcock et al. 2010). This is likely due to the strict access control in explosives areas that limit human activity and development in the canyon bottoms.

---

<sup>1</sup> Sound can be measured as decibels (dB), C-weighted dB [dB(C)], or A-weighted dB [dB(A)]. The dB(A) measurement best resembles the response of the human ear by filtering out lower and higher frequency sound not normally heard by the human ear.

#### 2.2.3.4 Other Sources of Noise

Major noise-producing activities at LANL include automobile and truck traffic and noise associated with office buildings, construction activities, a live-fire range, and explosives testing. Noise is also associated with aircraft traffic at the Los Alamos County airport. Construction and maintenance activities involved with operations at LANL are fairly common. In addition, implementation of the 2016 Compliance Order on Consent issued by the New Mexico Environmental Department has resulted in an increased frequency of drilling groundwater monitoring wells in protected habitat at LANL. Also, forest fuels management operations use chainsaws, chippers, and other noise-generating equipment. The 2010 National Pollutant Discharge Elimination System Individual Permit (EPA 2010) issued by the Environmental Protection Agency requires sediment control features such as berms and small rock check dams to be installed at various sites with stormwater runoff; these are sometimes installed in protected habitat. LANS biologists conducted a study of noise levels in canyons and found that the primary sources of noise exceeding 55 dB(A) were cars and trucks. Readings taken near flowing water were up to 11 dB(A) higher than readings taken elsewhere. The average dB(A) in canyons near paved roads ranged from 41 to 62, with maximum values ranging from 62 to 74. Away from paved roads 1.6 km (1 mi) or more, average dB(A) in canyons ranged from 37 to 50, with all but one average below 45. Maximum dB(A) away from paved roads ranged from 38 to 76, 76 dB(A) was measured during a thunder clap (Huchton et al. 1997).

In December 1997, LANS biologists conducted noise measurements at the Los Alamos County airport and in Bayo and Pueblo canyons, including the Los Alamos County Sewage Treatment Facility. Sound levels near the airport runway during the maximum use time (6:30 to 7:30 am) had background values averaging 54 dB(A). Noise during plane arrivals ranged from 47 to 63 dB(A). No measurements were collected during plane take-off. Sound measurements conducted in the bottoms of Pueblo and Bayo canyons ranged from 37 to 40 dB(A) in most areas of the canyon. At the sewage treatment facility parking lot during a working day, the average dB(A) during a 3-minute period was 46 (range 45 to 49). At the intersection of the road going into Pueblo Canyon with State Road 502, the average dB(A) during a 3-minute period was 60 (range 41 to 70).

LANS biologists conducted sound measurements at successive distances from an industrial area near a canyon rim, into the canyon, and to the opposite rim, using a C-weighted decibel (dB(C)) scale (Keller and Foxx 1997). Measurements of noise levels using the dB(C) scale are greater than if measured using the dB(A) scale. The average background noise on the mesa was 65.8 dB(C) [with a range of 43–81 dB(C)]. The average background noise in the canyon bottom was 62.3 dB(C) [with a range of 54–78 dB(C)]. The average background noise at the bottom of the north-facing slope was 53.8 dB(C) [with a range of 48–64 dB(C)]. Measurements were taken mid-day.

LANS biologists measured sound levels from various pieces of construction equipment used at LANL project sites over 5-minute intervals at distances of 6 to 31 m (20 to 100 ft) (Knight and Vrooman 1999). Average values ranged from 58.5 to 80.9 dB(A). Peak values ranged from 75.7 to 155.4 dB(A). Additional data were collected by other LANL operators on specific pieces of construction equipment and on the Security Computer Complex construction site fence perimeter at Technical Area 3 before and during construction (Knight and Vrooman 1999). The average

noise level before construction began was 56.6 dB(A), and the average during construction was 82.1 dB(A).

LANS biologists conducted a series of sound measurements at LANL to investigate background noise levels around AEIs (Vrooman et al. 2000). Background noise levels were significantly higher in daytime than in nighttime. AEIs with greater than a 10 percent developed area in their buffers had significantly higher levels of background noise than undeveloped AEIs. The mean background sound level was 51.3 dB(A) in developed AEIs and 39.6 dB(A) in undeveloped AEIs. The LANL biological resources project review process uses the individual AEI background measurements from Vrooman et al. (2000) to screen project activities for increases more than 6 dB(A) above background.

LANS biologists took sound level measurements of heavy equipment use associated with concrete recycling on Sigma Mesa at LANL in 2004 (Hansen 2004). At this location, background noise levels at two different locations were 55.2 and 58.8 dB(A). Operation of a dump truck hauling and dumping concrete increased noise levels above background by a mean of 22.7 dB(A) at 30 m (98 ft) and 2.4 dB(A) at 80 m (262 ft). Additional sound level measurements were taken in the same general area on Sigma Mesa in 2005 as part of a biological assessment for the operation of an asphalt batch plant (Hansen 2005). Measurements were taken on the north rim of Mortandad Canyon (south of the asphalt batch plant at distances of approximately 30 to 122 m (100 to 400 ft), at the bottom of Mortandad Canyon approximately 183 to 244 m (600 to 800 ft) from the asphalt batch plant, and on the south rim of Mortandad Canyon approximately 305 m (1,000 ft) from the asphalt batch plant. Background noise levels at the various locations ranged from 41.1 to 48.7 dB(A). The only locations with increases greater than 3 dB(A) during operation of the asphalt batch plant were the locations on the north rim of Mortandad Canyon, within 122 m (400 ft) of the asphalt batch plant. Noise from the operation of the asphalt batch plant was not detected in the bottom of Mortandad Canyon or on the south rim.

LANS biologists took sound level measurements around the LANL Biosafety Level 3 laboratory with the heating, ventilation, and air conditioning (HVAC) system on and with it off (Hansen 2009). The area to the north of the Biosafety Level 3 laboratory is developed, the area to the south is not. Background noise levels north of the facility ranged from 53.6 to 57.6 dB(A). Background noise levels south of the facility ranged from 41.6 to 49.7 dB(A). Noise from the HVAC system was detected at 25 m (82 ft) from the facility on both sides, but was not detected at 81 m (266 ft) on the north side, or at 107 m (351 ft) on the south side.

Overall, these studies appear to show that areas adjacent to or within developed areas or paved roads are likely to have daytime average background noise levels between 45 and 63 dB(A). Less disturbed areas are likely to have average background noise levels between 37 and 50 dB(A).

#### **2.2.3.5 Artificially Produced Light**

There is no information available on the effects of artificially produced light on Mexican Spotted Owls. Under the Los Alamos County Code, commercial site development plans are reviewed to ensure that lighting serves the intended use of the site while minimizing adverse impacts to adjacent residential property (Section 16-276). Section 16-276 of the County Code includes light source measurement limitations by zoning district. The code allows off-site light to be 0.5 foot candles (fc) in residential areas. By comparison, full moonlight measures 0.1 fc, and a crescent



moon was measured at 0.01 fc. Table A-2 in the appendix presents preliminary light measurements in fc.

Preliminary surveys were conducted for light levels within Los Alamos Canyon at the Omega Reactor (Keller and Foxx 1997). The Omega Reactor was brightly lit for purposes of security; therefore, total light intensity was greater than the average street lighting. Measurements were conducted at a light pole in an open parking lot at the reactor as the source. Trees did not obscure the area. Using the relationship of light intensity reducing as a square of the distance, calculations using the field data indicated that at 30 m (98 ft) from the source, the light levels would be equivalent or nearly equivalent to full moonlight.

### **3.0 AEI General Description for Mexican Spotted Owl**

An AEI consists of two areas—a core and a buffer. The core of the habitat is defined as suitable canyon habitat from rim to rim and 100 m (328 ft) out from the top of the canyon rim. The buffer area is 400 m (1,312 ft) wide extending outward from the edge of the core area. Although adult Mexican Spotted Owls may be found within their home range anytime throughout the year, the primary threat from disturbance to the owls is during the breeding season when owl pairs are tied to their nest sites. Therefore, management of disturbance in Mexican Spotted Owl AEIs is concentrated on the breeding season.

#### **3.1 Method for Identifying a Mexican Spotted Owl AEI**

The original location of each Mexican Spotted Owl AEI was identified using a habitat model developed by Johnson (1998) that classified nesting and roosting habitat for Mexican Spotted Owls using topographic characteristics and vegetative diversity. LANS biologists compared the results from the Johnson (1998) model to a different model identifying slopes >40 percent in mixed conifer and ponderosa pine cover types at LANL. Areas identified from the Johnson (1998) model application to LANL that were over five contiguous 30 × 30 m (97 × 98 ft) pixels in size, were above 1,980 m (6,496 ft) in elevation, and that had mixed conifer or ponderosa pine forest cover, were considered suitable Mexican Spotted Owl habitat. Where suitable habitat was identified, AEI core area boundaries were established to include the canyons and 100 m (328 ft) outward from the canyon rims.

An updated Mexican Spotted Owl habitat model was developed and refined for application on LANL property following the Cerro Grande wildfire (Hathcock and Haarmann 2008). This model incorporated finer-scale vegetation characteristics into the Mexican Spotted Owl habitat quality assessment. This model was used to redelineate the boundaries of the Mexican Spotted Owl AEIs at LANL in 2005 following wildfire, drought, and a regional bark beetle outbreak (USFWS consultation number 22420-2006-I-0010).

The new core boundaries were delineated with an area approximately 0.4 km (0.25 mi) from the edge of the nearest suitable habitat, up and down canyon. Core boundaries were established along readily recognizable geologic features or anthropogenic features in the terrain wherever possible to facilitate the ease of identification of core boundaries when in the field.



### **3.2 Location and Number of Mexican Spotted Owl AEIs**

There are currently five Mexican Spotted Owl AEIs on LANL property, each encompassing one or more canyons. In general, the AEI cores are centered in canyons on the western side of LANL. The canyons with AEIs are Cañon de Valle, Water, Pajarito, Los Alamos, Sandia, Mortandad, and Three-Mile.

## **4.0 AEI Management**

### **4.1 Overview**

This AEI management section provides guidelines for LANL operations to reduce or eliminate the threats to Mexican Spotted Owls from 1) habitat alterations that reduce habitat quality and 2) disturbance of breeding or potentially breeding owls. Habitat alterations are considered for all AEIs and for both core and buffer areas. Disturbance activities to owls are considered only for occupied AEIs and only for impacts on core areas. Developed areas (see Part I, Section 3.1) that have ongoing baseline levels of activities and are not suitable habitat for Mexican Spotted Owls have different restrictions than undeveloped core or buffer areas. Therefore, the location of the disturbance activity within the AEI, the occupancy status of the AEI, and the type of activity all affect whether or not the activity is allowable. AEIs for different species may overlap, and an activity must meet the guidelines of all applicable site plans to be allowable.

### **4.2 Definition and Role of Occupancy in AEI Management**

Occupancy simply refers to whether or not an AEI is occupied during a species' period of sensitivity. For Mexican Spotted Owls, the primary concern is to protect the owls from disturbance during the breeding season. Because individuals may colonize suitable habitat, all Mexican Spotted Owl AEIs are treated as though they are occupied from March 1 through August 31 or until surveys show an AEI to be unoccupied. Mexican Spotted Owl surveys are conducted from late March through June. In general, surveys in areas with ongoing or proposed projects are completed by May 15. If a nest is located during surveys, then the AEI can be treated as unoccupied except for the area within a 400 m (1,312 ft) radius of the nest site. Because owls are not as sensitive to disturbance during the non-breeding season, Mexican Spotted Owl AEIs are treated as unoccupied from September 1 to February 28.

The occupancy status of an AEI affects what activities are allowable in the AEI. Although activities causing habitat alterations are restricted in all AEIs, disturbance activities are restricted only in occupied AEIs. The Activity Table (Table 1, Section 4.5.2) provides dates and levels of allowable disturbance activities within occupied Mexican Spotted Owl AEIs under the guidelines of this site plan. Contact a LANS biologist to find out the current occupancy status of an AEI (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

### **4.3 Introduction to AEI Management Guidelines**

Sections 4.4 and 4.5 provide the guidelines for habitat alterations and allowable activities in AEI core and buffer areas. Section 4.4 describes what and where habitat alterations are allowed under the guidelines of this site plan. Section 4.5 describes what, when, and where disturbance activities are allowed in occupied AEIs under the guidelines of this site plan. If an activity does not meet the restrictions given in the guidelines, the activity must be individually reviewed for

ESA compliance. This site plan only provides guidelines for Mexican Spotted Owl AEIs. If an activity is desired in an area with overlapping AEIs, all applicable site plans must be consulted. AEI maps show the location of all AEIs in an area. Section 4.6 describes management practices that should be applied when working or considering work in an AEI. LANS biologists are available to answer questions and provide advice (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

#### **4.4 Definition of and Restrictions on Habitat Alterations**

##### **4.4.1 Definition of Habitat Alterations**

Habitat alteration includes any action that alters the soil structure, vegetative components necessary to the species, prey quality and quantity, water quality, hydrology, or noise or light levels in undeveloped areas of an AEI. Long term means the alteration lasts for more than one year. For physical disturbances, in general, any activity that can be accomplished by one person with a hand tool is generally not considered habitat alteration; any activity that requires mechanized equipment on a landscape is habitat alteration. An actual activity may take place outside of the AEI and will be considered habitat alteration if consequences of the activity have effects inside the AEI core.

The habitat components most important to Mexican Spotted Owls include vegetative structure, food quality and quantity, and disturbance levels, including noise and light. The forest structure within a canyon designated as a Mexican Spotted Owl AEI is important because it provides roost sites and a suitable habitat for nesting and foraging. Trees along the canyon rim are used for foraging and territorial calling, and they shelter the canyon interior from light and noise disturbances.

A long-term change in light or noise levels within the undeveloped core of an AEI is considered to be a habitat alteration if it increases average noise levels by  $\geq 6$  dB(A) during any portion of the 24-hour day, or it increases average light levels by  $\geq 0.05$  fc at night. Changes in noise and light levels are measured at the core area boundary if the source is outside the core area, or at 10 m (33 ft) from the source if the source is inside the undeveloped core area. Impacts of changes in developed areas on undeveloped cores are measured at the developed area boundary if it is within the core, or at the core area boundary if the developed area is outside of the core.

##### **4.4.2 Fuels Management Practices to Reduce Wildfire Risk**

The recovery plan for the Mexican Spotted Owl lists stand-replacing wildfires as a primary threat to their habitat and encourages land managers to reduce fuel levels and abate fire risks in ways compatible with owl presence on the landscape (USFWS 1995). Within undeveloped core areas, on slopes  $>40$  percent, in the bottoms of steep canyons, and within 30 m (100 ft) of a canyon rim, thinning of trees  $<22$  cm (9 in) diameter at breast height, treatment of fuels, and prescribed and natural prescribed fires are allowed. Exceptions allowing trees  $>22$  cm (9 in) to be thinned within 30 m (100 ft) of buildings are granted to protect facilities. Large logs ( $>30$  cm [11.8 in] midpoint diameter) and snags should be retained. Thinning within core areas not meeting the characteristics listed above, and in buffer areas, may include trees of any size to achieve 8 m (25 ft) spacing between tree crowns. However, clear cutting is not allowed in undeveloped core areas.

For health and safety reasons, any trees within 30 m (100 ft) of buildings, but outside a developed area, may be thinned to achieve 8 m (25 ft) spacing between crowns. Habitat alterations including thinning are not restricted in developed areas. However, LANS biologists encourage the retention of trees and snags along canyon rims if the rim is in a developed area. Because of the extreme fire danger associated with firing sites and the potential impact of a fire on Mexican Spotted Owl habitat, firing sites and burn areas are treated separately for the purposes of fuels management. Trees within 380 m (1,246 ft) of firing sites and burn areas in both core and buffer areas may be thinned to a 15 m (49 ft) spacing between trees everywhere except on slopes >40 percent or in the bottoms of steep canyons. Any tree over 22 cm (9 in) diameter at breast height within 380 m (1,246 ft) of a firing site may be delimbed to a height of 2 m (6 ft) to help prevent crown fires.

In historically occupied core areas, fuels treatment may not exceed 10 percent of the undeveloped core area and is not allowed within 400 m (1,312 ft) of nesting areas. In occupied core areas, forest management activities must take place during the nonbreeding season (September 1 to February 28) (USFWS 1995). Fuels management activities that are allowable in core areas must be reported to LANS biologists for tracking (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

#### **4.4.3 Utility Corridors**

Habitat alterations such as cutting down trees that threaten power lines are allowed within 8 m (26 ft) of either side of an existing utility line in all areas of an AEI (Trujillo and Racine 1995). New utility lines and utility lines requiring clearance of a right-of-way greater than 16 m (52 ft) total must be individually reviewed for ESA compliance. Disturbance activities must follow the guidelines given in the Activities Table (Table 1, Section 4.5.2) for occupied AEIs.

#### **4.4.4 Restrictions on Habitat Alterations**

Habitat alterations other than the fuels management practices and utility corridor maintenance described above are not allowed in undeveloped core areas under the guidelines of this site plan. If a project or activity is planned that would alter habitat in an undeveloped core area, it must be individually evaluated for ESA compliance. Habitat alterations in undeveloped buffer areas other than the fuels management activities and utility corridor maintenance described above are restricted to 2 ha (5 ac) in area per project and are subject to other restrictions including light and noise effects in the core (see Section 2.2.3). Projects in the buffer area over 2 ha (5 ac) in size will require individual ESA compliance review.

Habitat alterations in a buffer area other than the fuels management and utility corridor maintenance described above must be reported to LANS biologists for tracking (<http://int.lanl.gov/environment/bio/controls/index.shtml>). There is a cumulative maximum area that can be developed in each AEI's buffer. Once that cumulative area is reached, all habitat alterations in a buffer will require individual ESA reviews for compliance.

## 4.5 Definition of and Restrictions on Disturbance Activities

### 4.5.1 Definitions of Disturbance Activities

LANS biologists considered six categories of activities that might cause disturbance in an AEI. Most of the categories were first identified in the document “Peregrine Falcon Habitat Management in the National Forests of New Mexico,” prepared for the United States Forest Service (Johnson 1994). LANS biologists added explosives detonation, other light production, and other noise production to provide the most comprehensive list of activities possible, thereby reducing the need for individual review of activities for ESA compliance. The categories of activities are people, vehicles, aircraft, other light production, other noise production, and explosives detonation. LANS biologists defined low, medium, and high levels of impact for these activities except for explosives detonation. Activity levels for explosives detonation have been designed to follow the guidelines agreed upon by LANL, DOE, and USFWS in the DARHT biological assessment (Keller and Risberg 1995). Restrictions on explosives detonation are described in the definition of the activity, but are not included in the Activity Table (Table 1, Section 4.5.2). These six categories of activities are restricted only in AEIs that are classified as occupied.

**People**—includes any entry of people into an AEI on foot.

- Low impact is the presence of three or fewer people per project and duration of one day or less during a breeding season.
- Medium impact is the exceedance of either the number of people or the duration criteria.
- High impact is the exceedance of both the number of people and the duration criteria.

**Vehicles**—includes the entry of any two-axle highway vehicle, all-terrain vehicle, or motorized machinery into an AEI by any route other than a paved road or an improved gravel road.

- Low impact is the presence of two or fewer vehicles per project and duration of one day or less during a breeding season.
- Medium impact is the exceedance of either the number of vehicles or the duration criteria.
- High impact is the exceedance of both the number of vehicles and the duration criteria.

**Aircraft**—includes the operation of any aircraft below an elevation of 600 m (2,000 ft) above the highest ground level in the local vicinity.

- Low impact is the presence of one single-engine airplane and the duration of one day or less during a breeding season.
- Medium impact is the exceedance of either the number of aircraft or the duration criteria.
- High impact is the exceedance of both the number of aircraft and the duration criteria.

Any use of helicopters, jet airplanes, and propeller airplanes with two or more engines is classified as medium impact or above, depending on duration.

**Other Light Production**—includes any activity not previously listed that causes additional light to occur in an AEI core area. For example, plans for construction of a new building at the edge of a developed area may call for lighting at night to facilitate nighttime work that impacts an undeveloped core area.

- Low impact is the increase of light intensity by  $\leq 0.05$  fc and a duration of one night or less per project per breeding season.
- Medium impact is the exceedance of either the intensity or duration criteria.
- High impact is the exceedance of both the intensity and duration criteria.

Measurements for increases in light are taken at the AEI core area boundary closest to the light source if the source is outside the core and at 10 m (33 ft) from the source if the source is inside the core. Light measurements for developed areas are taken at the edge of the developed area if the developed area is within an AEI core or at the closest core boundary if the developed area is outside of an AEI core.

**Other Noise Production**—includes any activity not previously listed except for explosives detonation that causes additional noise to occur in an AEI. For example, operation of machinery creates noise.

- Low impact is increasing noise levels in an AEI core by 6 dB(A) or less for one day or less per project per breeding season.
- Medium impact is the exceedance of either the level or the duration criteria.
- High impact is the exceedance of both the level and the duration criteria.

Measurements for increases in noise are taken at the AEI core boundary closest to the noise source if the source is outside the core and at 10 m (33 ft) from the source if the source is inside the core. Noise measurements for developed areas are taken at the edge of the developed area if the developed area is within an AEI core or at the closest core boundary if the developed area is outside of an AEI core.

**Explosives Detonation**—includes the use of high explosives for any purpose. LANS biologists did not define low, medium, and high levels of this activity because of the difficulty of determining levels for a shot before actually doing the shot. For the purpose of explosives detonation near Mexican Spotted Owl AEIs, occupied habitat is defined as the area within 400 m (1,312 ft) of the current year's nest/roost sites or the previous year's nest site if a current site has not been identified. No explosives detonation will take place within 400 m (1,312 ft) of nest/roost sites in occupied habitat between March 1 and August 31. Explosives detonation at night at sites within 400 to 800 m (1,312 to 2,624 ft) of a nest site in occupied habitat is restricted to once a month from March 1 and August 31. There are no restrictions on daytime explosives testing between 400 and 800 m (1,312 to 2,624 ft). There are no restrictions between September 1 and February 28 or in unoccupied habitat. Explosives detonation adjacent to AEIs that have not previously been recorded by LANS biologists as occupied will have no restrictions unless surveys detect Mexican Spotted Owls. Explosives tests not allowed under the guidelines of this site plan must be individually reviewed for ESA compliance.

#### 4.5.2 Activity Table

The dates shown in the Activity Table (Table 1) are the dates between which the activity in the row is restricted under the guidelines of this site plan. All AEIs are considered occupied from March 1 to August 31 or until surveys show an AEI to be unoccupied. If owls are detected, AEIs are considered occupied until August 31 within 400 m (1,312 ft) of the nest site. Consult with LANS biologists to find out occupancy status of AEIs and what locations are within 400 m (1,312 ft) of nest sites (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

**Table 1. Restrictions on Activities in Undeveloped Occupied Mexican Spotted Owl AEIs**

	Levels of Impact	Core	Buffer
<i>People</i>			
	Low	No Restrictions*	No Restrictions
	Medium	March 1 to August 31	No Restrictions
	High	March 1 to August 31	No Restrictions
<i>Vehicles</i>			
	Low	No Restrictions	No Restrictions
	Medium	March 1 to August 31	No Restrictions
	High	March 1 to August 31	No Restrictions
<i>Aircraft</i>			
	Low	March 1 to August 31	No Restrictions
	Medium	March 1 to August 31	March 1 to May 15
	High	March 1 to August 31	March 1 to August 31
<i>Other Light Production</i>			
	Low	March 1 to August 31	No Restrictions**
	Medium	March 1 to August 31	No Restrictions**
	High	March 1 to August 31	No Restrictions**
<i>Other Noise Production</i>			
	Low	March 1 to August 31	No Restrictions**
	Medium	March 1 to August 31	No Restrictions**
	High	March 1 to August 31	No Restrictions**
<i>Explosives Detonation (see text in Section 4.5.1)</i>			

\* Entry is restricted in core areas that are occupied within 400 m (1,312 ft) of the nest site from March 1 to August 31. If the current nest has not been located, entry is restricted within 400 m (1,312 ft) of the previous year's nest site.

\*\* Noise or light production in the buffer is restricted if the activity would violate core area restrictions on noise or light.

#### 4.6 Protective Measures

This section provides a list of management practices to apply in Mexican Spotted Owl AEIs.

- Timing of projects must take into account that projects in core areas or projects that violate restrictions for occupied buffer areas must stop on February 28 each year until occupancy status of the AEI is determined.



- Make every reasonable effort to reduce the noise from explosives testing within 800 m (2,624 ft) of occupied habitat. Methods to reduce noise could include contained shots, noise shields in the direction of AEI cores, etc. For night shots, every reasonable effort should be made to limit the amount of light directed into AEI core areas.
- Install signs on dirt roads and trails leading into AEIs labeling them as restricted access areas and provide a contact number for access restrictions.
- Keep disturbance and noise to a minimum.
- Avoid unnecessary disturbance to vegetation (e.g., excessive parking areas or equipment storage areas, off-road travel, materials storage areas, crossing of streams or washes).
- Avoid removal of vegetation along drainage systems and stream channels.
- Avoid all vegetation removals not absolutely necessary.
- Employ appropriate erosion and runoff controls to reduce soil loss. The controls must be put in place and periodically checked throughout the life of projects.
- Revegetate all exposed soils as soon as feasible after construction to minimize erosion.
- Focus development away from undeveloped areas on the western end of the Los Alamos Canyon AEI.

## 5.0 Levels of Development in AEI Core and Buffers

### 5.1 Allowable Habitat Alteration in the Buffer Areas

The following quantifications of development and guidance for allowable habitat alteration in buffer areas were published and consulted on in the 1999 version of the HMP. Most AEIs changed in dimensions during the 2005 redelineation of the habitats, and many have experienced additional development under past consultations. Many projects were reviewed and received USFWS concurrence between 1999 and 2017.

The current development status for each of the AEIs is at the end of each AEI description.

***Cañon de Valle***—In 1999, 16.3 ha (40.3 ac) of the core was developed and 52.2 ha (129 ac) of the buffer was developed. For this AEI, it was recommended that only an additional 25.30 ha (62.5 ac) of the AEI buffer be developed. The 1999 HMP stated that once this cap is reached or a large-scale project is proposed, additional consultation with USFWS would be required. By 2011, 28 ha (69.2 ac) of the core and 84 ha (207.5 ac) of the buffer was developed, with most of the changes due to consultations. The 2017 redelineation of the lower Water Canyon AEI resulted in another reduction of 69 ha (170 ac). The current size of this AEI is 277 ha (685 ac) of core and 524 ha (1295 ac) of buffer habitat. Of that, 21 ha (52 ac) of the current core is developed and 71 ha (176 ac) of the current buffer is developed.

***Pajarito***—In 1999, 6.7 ha (16.5 ac) of the core was developed and 75.1 ha (186.5 ac) of the buffer was developed. For this AEI, it was recommended that only an additional 35 ha (86.4 ac) of the buffer be developed. The 1999 HMP stated that once the cap is reached or a single large-scale project is proposed, additional consultation with the USFWS would be required. By 2011,

27 ha (66.7 ac) of the core and 89 ha (220 ac) of the buffer was developed, with most of the changes due to consultations. The current size of this AEI is 236 ha (585 ac) of core and 449 ha (1,111 ac) of buffer habitat. Of that, 27 ha (67 ac) of the current core is developed and 89 ha (220 ac) of the current buffer is developed.

**Los Alamos**—In 1999, 77.16 ha (190 ac) of the core was developed and 167.2 ha (413.1 ac) of the buffer was developed. Because this AEI is heavily developed, additional development was restricted to a few selected areas within the buffer. By 2011, 94 ha (232.2 ac) of the core and 181 ha (447.3 ac) of the buffer was developed, with most of the changes due to consultations. The current size of this AEI is 325 ha (805 ac) of core and 535 ha (1,323 ac) of buffer habitat. Of that, 64 ha (158 ac) of the current core is developed and 129 ha (319 ac) of the current buffer is developed.

**Sandia-Mortandad**—In 1999, 29 ha (71.7 ac) of the core was developed and 75.1 ha (185.6 ac) of the buffer was developed. For this AEI, LANS biologists recommended only an additional 38.1 ha (94.1 ac) of the buffer be developed before additional USFWS consultations take place. By 2011, 45 ha (111.2 ac) of the core and 83 ha (205.1 ac) of the buffer was developed, with most of the changes due to consultations. The current size of this AEI is 270 ha (669 ac) of core and 371 ha (918 ac) of buffer habitat. Of that, 44 ha (110 ac) of the current core is developed and 83 ha (206 ac) of the current buffer is developed.

**Three Mile**—In 1999, 3.8 ha (9.4 ac) of the core was developed and 21.5 ha (51.1 ac) of the buffer was developed. For this AEI, LANS biologists recommended only 64.3 ha (158.8 ac) additional area of buffer be developed before additional USFWS consultations take place. By 2011, 12 ha (29.6 ac) of the core and 37 ha (91.4 ac) of the buffer was developed, with most of the changes due to consultations. The current size of this AEI is 131 ha (325 ac) of core and 295 ha (730 ac) of buffer habitat. Of that, 11 ha (29 ac) of the current core is developed and 36 ha (91 ac) of the current buffer is developed.

### **III. AREA OF ENVIRONMENTAL INTEREST SITE PLAN FOR THE SOUTHWESTERN WILLOW FLYCATCHER**

#### **1.0 Species Description—Southwestern Willow Flycatcher**

##### **1.1 Status**

In 1995, the USFWS designated the Southwestern Willow Flycatcher as a federally endangered species (60 FR 10693). The USFWS most recently designated critical habitat for the Southwestern Willow Flycatcher in 2013 (78 FR 343). The most recent recovery plan for the Southwestern Willow Flycatcher was published in 2002 (USFWS 2002).

##### **1.2 General Biology**

The Southwestern Willow Flycatcher is one of four subspecies of the Willow Flycatcher. The historic range of the Southwestern Willow Flycatcher included Arizona, California, Colorado, New Mexico, Texas, Utah, and Mexico. Currently, this flycatcher breeds in riparian habitats from southern California to Arizona and New Mexico, plus southern Colorado, Utah, Nevada,

and far western Texas. In winter it is found in southern Mexico, Central America, and northern South America (USFWS 2002).

Southwestern Willow Flycatchers are present in New Mexico from early May through mid-September and breed from late May through late July (Finch and Kelly 1999; USFWS 2002; Yong and Finch 1997). The flycatcher's nesting cycle is approximately 28 days. Three or four eggs are laid at one-day intervals, and incubation begins when the clutch is complete. The female incubates eggs for approximately 12 days, and the young fledge about 13 days after hatching. Southwestern Willow Flycatchers typically raise one brood per year (USFWS 2002). Because arrival dates vary, northbound migrant Willow Flycatchers (of all subspecies) pass through areas where Southwestern Willow Flycatchers have already begun nesting. Similarly, southbound migrants (of all subspecies) in late July and August may occur where Southwestern Willow Flycatchers are still breeding. Therefore, it is only during a short period of the breeding season (approximately June 15 through July 20) that a Willow Flycatcher seen within Southwestern Willow Flycatcher range is probably of that subspecies (USFWS 2002).

The Southwestern Willow Flycatcher only nests along rivers, streams, and other wetlands. It is found in close association with dense stands of willows (*Salix* spp.), arrowweed (*Pluchea* spp.), buttonbush (*Cephalanthus* spp.), tamarisk (*Tamarix* spp.), Russian olive (*Eleagnus angustifolia* L.), and other riparian vegetation, often with a scattered overstory of cottonwood (*Populus* spp.) (USFWS 2002). The size of vegetation patches or habitat mosaics used by Southwestern Willow Flycatchers varies considerably and ranges from as small as 0.8 ha (1.9 ac) to several hundred hectares (Hatten and Paradzick 2003). The Southwestern Willow Flycatcher nests in thickets of trees and shrubs approximately 2 to 15 m (6 to 49 ft) tall, with a high percentage of canopy cover and dense foliage from 0 to 4 m (0 to 13 ft) above ground. Regardless of the plant species composition or height, occupied sites always have dense vegetation in the patch interior (Allison et al. 2003; USFWS 2002).

The Southwestern Willow Flycatcher is an insectivore. It forages within and occasionally above dense riparian vegetation, taking insects on the wing and gleaning them from foliage. The flycatcher's prey includes flies, bees, wasps, ants, beetles, moths, butterflies, grasshoppers, crickets, dragonflies, damselflies, and spiders (Durst et al. 2008; Wiesenborn and Heydon 2007).

### **1.3 Threats**

The current population of Southwestern Willow Flycatchers in the United States occupies an estimated 1,214 territories (Durst et al. 2006). The distribution of breeding groups is highly fragmented, with groups often separated by considerable distances. This subspecies has suffered declines attributed to extensive loss of its cottonwood-willow habitat and to poor productivity resulting from brood parasitism by Brown-headed Cowbirds (*Molothrus ater*) (USFWS 2002).

## **2.0 Impact of Human Activities**

### **2.1 Introduction**

The primary threats to the Southwestern Willow Flycatcher on LANL property are 1) impacts on habitat quality from LANL operations and 2) disturbance of nesting flycatchers. This section includes a review and summary of the known effects of various types of human activities to the

Southwestern Willow Flycatcher and an overview of the current levels of activities at LANL within species habitat.

## **2.2 Impacts on Habitat Quality**

### **2.2.1 Development**

Throughout the Southwest, riparian habitats are rare and tend to be small and separated by vast expanses of arid lands. The Southwestern Willow Flycatcher has experienced extensive habitat loss and modification resulting from urban and agricultural development, water diversion and impoundment, channelization of waterways, livestock grazing, off-road vehicle and other recreational uses, and hydrological changes resulting from these and other land uses (USFWS 2002). River and stream impoundments, groundwater pumping, and overuse of riparian areas have altered as much as 90 percent of the Southwestern Willow Flycatcher's habitat (USFWS 2002). Loss of cottonwood-willow riparian forests has had widespread impact on the distribution and abundance of bird species associated with that forest. Development may be tolerated if the habitat is left intact.

Because watercourses at LANL tend to be intermittent to ephemeral, riparian habitat is uncommon. There has been extensive degradation of the riparian zone along the Rio Grande caused by feral cattle grazing and flood control operations at Cochiti Lake. There are other riparian/wetland areas on LANL property associated with canyon bottoms, the most significant being the Pajarito wetlands in the lower end of Pajarito Canyon. A major paved road parallels the wetlands area in Pajarito Canyon.

### **2.2.2 Ecological Risk**

There is no specific information on the impact of chemicals on the Southwestern Willow Flycatcher.

#### **2.2.2.1 Ecorisk Assessment**

LANS subject matter experts completed two ecological risk assessments between 1997 and 2009 that included the Southwestern Willow Flycatcher. The ecological risk assessment process involves using computer modeling to assess potential effects to animals from chemicals of potential concern that have been detected in the environment. The ecological risk assessments concluded that, in general, there is a small potential for effects to Southwestern Willow Flycatcher from chemicals of potential concern (Gonzales et al. 1998; Gonzales et al. 2009).

An ecotoxicological risk assessment for the Southwestern Willow Flycatcher, centered on the Pajarito wetlands, found that between 7 and 16 percent of 100 hypothetical nest sites examined had hazard indices  $>1.0$  and  $<10.0$ , depending on the foraging scenario (Gonzales et al. 1998). This indicates a small potential for impacts from chemicals. The primary chemicals driving the risk scenario were pentachlorophenol, aluminum, radium-226, calcium, and thorium-228. Aluminum, radium, and thorium are naturally occurring substances in northern New Mexico.

### **2.2.3 Disturbance**

#### **2.2.3.1 Pedestrians and Vehicles**

There is no specific information available on the reactions of Southwestern Willow Flycatchers to pedestrians and vehicles. The recovery plan for the Southwestern Willow Flycatcher recommends providing protected areas, reducing unpredictable activities, providing visual barriers, and reducing noise disturbance (USFWS 2002).

#### **2.2.3.2 Aircraft**

There is no specific information available on the reaction of Southwestern Willow Flycatchers to aircraft.

LANL lies within restricted airspace and planes infrequently fly less than 609 m (2,000 ft) above ground level. The County of Los Alamos operates an airport along the northern edge of LANL. The airport is located on the southern rim of Pueblo Canyon. Most flights approach and depart to the east of the airport, over the Rio Grande.

#### **2.2.3.3 Explosives**

There is no specific information available on the reaction of Southwestern Willow Flycatchers to explosives detonation. The Southwestern Willow Flycatcher AEI is not located close to any explosives testing sites at LANL.

#### **2.2.3.4 Other Sources of Noise**

LANS biologists do not have good information on the effects of noise, including machinery operation, on Southwestern Willow Flycatchers. However, Southwestern Willow Flycatchers are probably not as sensitive to disturbance as some other threatened or endangered species (USFWS 2002). For a description of noise levels at LANL, see Part I, Section 2.2.3.

#### **2.2.3.5 Artificially Produced Light**

There is no information available on the effects of artificially produced light on Southwestern Willow Flycatchers. Under the Los Alamos County Code, commercial site development plans are reviewed to ensure that lighting serves the intended use of the site while minimizing adverse impacts to adjacent residential property (Section 16-276). Section 16-276 of the County Code includes light source measurement limitations by zoning district. The code allows off-site light to be 0.5 fc in residential areas. By comparison, full moonlight measures 0.1 fc, and a crescent moon was measured at 0.01 fc.

### **3.0 AEI General Description for the Southwestern Willow Flycatcher**

The AEI consists of two types of areas—core and buffer. Core areas represent wetland areas with suitable vegetation for nesting, primarily dense willows. The buffer area is the area within 100 m (328 ft) of core areas. The Southwestern Willow Flycatcher AEI on LANL property consists of two separate core areas. For purposes of this site plan, both core areas and associated buffers are considered one AEI unit.

### **3.1 Method for Identifying the Southwestern Willow Flycatcher AEI**

The core areas were defined by the presence of riparian habitat and suitable wetland vegetation. These areas were identified in 1994 during a survey of wetlands at LANL and mapped using a global positioning system receiver. Wetlands without stands of dense willows at least 2 m (7 ft) tall and 30 m (98 ft) wide were not included in the AEI. The buffer area is the area within 100 m (328 ft) of the core areas.

### **3.2 Location of the Southwestern Willow Flycatcher AEI**

There is one Southwestern Willow Flycatcher AEI on LANL property. It is composed of two core areas with associated buffers. The AEI core areas are located in the bottom of Pajarito Canyon, on the eastern side of LANL adjacent to Pajarito Road and State Road 4.

## **4.0 AEI Management**

### **4.1 Overview**

This AEI management section provides guidelines for LANL operations to reduce or eliminate the threats to the Southwestern Willow Flycatcher from 1) habitat alterations that reduce habitat quality and 2) disturbance of breeding or potentially breeding flycatchers. Habitat alterations are considered for all AEIs and for both core and buffer areas. Disturbance activities to flycatchers are considered only for occupied AEIs and only for impacts on core areas. Developed areas (see Part I, Section 2.3) that have ongoing baseline levels of activities and are not suitable habitat for Southwestern Willow Flycatchers have different restrictions than undeveloped core or buffer areas. Therefore, the location of the disturbance activity within the AEI, the occupancy status of the AEI, and the type of activity all affect whether or not the activity is allowable. AEIs for different species may overlap, and an activity must meet the guidelines of all applicable site plans to be allowable. Protective measures are described as management practices that should be followed when working in AEIs.

### **4.2 Definition and Role of Occupancy in AEI Management**

Occupancy simply refers to whether or not an AEI is occupied during a species' period of sensitivity. For Southwestern Willow Flycatchers, LANS biologists are primarily concerned with protecting the birds from disturbance during the breeding season. Because individuals may colonize suitable habitat, the Southwestern Willow Flycatcher AEI is treated as though it is occupied from May 15 through September 15 or until surveys show an AEI to be unoccupied. Southwestern Willow Flycatcher surveys are conducted during May, June, and July. Because Southwestern Willow Flycatchers migrate south for the winter, the AEI is treated as unoccupied from September 16 to May 14.

The occupancy status of an AEI affects what activities are allowable in the AEI. Although activities causing habitat alterations are always restricted, disturbance activities are restricted only in occupied AEIs. The Activity Table (Table 2, Section 4.5.2) provides dates and levels of disturbance activities allowable in the occupied Southwestern Willow Flycatcher AEI under the guidelines of this site plan. The dates in Table 2 indicate the time period during which the activity is restricted. Contact a LANS biologist to find out the current occupancy status of an AEI (<http://int.lanl.gov/environment/bio/controls/index.shtml>).



### **4.3 Introduction to AEI Management Guidelines**

Sections 4.4 and 4.5 provide the guidelines for habitat alterations and allowable activities in AEI core and buffer areas. The flowchart (see Figure 1) provides a quick reference that should be used to determine if a project or activity will affect an AEI and what sections of the site plan need to be consulted. The section on habitat alterations (Section 4.4) describes what and where habitat alterations are allowed under the guidelines of this site plan. The section and table on allowable activities (Section 4.5 and Table 2) describe what, when, and where disturbance activities are allowed in occupied AEIs under the guidelines of this site plan. If an activity does not meet the restrictions given in the guidelines, the activity must be individually reviewed for ESA compliance. This site plan only provides guidelines for the Southwestern Willow Flycatcher AEI. If an activity is desired in an area with overlapping AEIs, all applicable site plans must be consulted. Section 4.6 describes management practices that should be applied when working or considering work in an AEI. LANS biologists are available to help interpret site plans and answer questions (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

### **4.4 Definition of and Restrictions on Habitat Alterations**

#### **4.4.1 Definition of Habitat Alterations**

Habitat alteration includes any action that over the long term alters the soil structure, vegetative components necessary to the species, prey quality and quantity, water quality, hydrology, or noise or light levels in undeveloped areas of an AEI. Long term means the alteration lasts for more than one year. Habitat alteration includes any activity that removes vegetative components important to the Southwestern Willow Flycatcher (primarily trees and shrubs). An actual activity may take place outside of the AEI and will be considered habitat alteration if consequences of the activity have effects inside the AEI core.

The habitat components most important to flycatchers include vegetative structure, food quality and quantity, and disturbance levels, including noise and light. The thickets of certain trees and shrubs along wetlands are important because they provide roost sites and a suitable habitat for nesting and foraging.

#### **4.4.2 Fuels Management Practices to Reduce Wildfire Risk**

Thinning within undeveloped buffer areas may include trees of any size to achieve 7.6 m (25 ft) spacing between tree crowns. However, clear cutting is not allowed in undeveloped buffer areas. No fuels management practices are allowed in core areas. Habitat alterations including thinning are not restricted in developed areas.

#### **4.4.3 Utility Corridors**

Habitat alterations such as cutting down trees that threaten power lines are allowed within 8 m (26 ft) of either side of an existing utility line in all areas of an AEI (Trujillo and Racinez 1995). New utility lines and utility lines requiring clearance of a right-of-way greater than 16 m (52 ft) total must be individually reviewed for ESA compliance. Disturbance activities must follow the guidelines given in the Activities Table (Table 2, Section 4.5.2) for occupied AEIs.

#### **4.4.4 Restrictions on Habitat Alterations**

Habitat alterations other than the utility corridor maintenance described above are not allowed in undeveloped core areas under the guidelines of this site plan. Habitat alteration in buffers is limited. If a project or activity is planned that would alter habitat in an undeveloped core area, it must be individually evaluated for ESA compliance. Habitat alterations in a buffer area other than fuels management activities or utility corridor maintenance must be reported to a LANS biologist for tracking (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

### **4.5 Definition of and Restrictions on Disturbance Activities**

#### **4.5.1 Definition of Disturbance Activities**

LANS biologists considered five categories of activities that might cause disturbance in an AEI. Most of the categories were first identified in the document “Peregrine Falcon Habitat Management in the National Forests of New Mexico” prepared for the United States Forest Service (Johnson 1994). Other light production and other noise production were included to provide the most comprehensive list of activities possible, reducing the need for individual review of activities for ESA compliance. The categories of activities are people, vehicles, aircraft, other light production, and other noise production. The impact of explosives detonation on this species is not considered here because there are no explosives testing sites within 2 km (1.25 mi) of potential nesting habitat. Low, medium, and high levels of impact for these activities are considered here. The following categories of activities are restricted only in AEIs that are classified as occupied.

**People**—includes any entry of people into an AEI on foot.

- Low impact is the presence of three or fewer people per project and duration of one day or less during a breeding season.
- Medium impact is the exceedance of either the number of people or the duration criteria.
- High impact is the exceedance of both the number of people and the duration criteria.

**Vehicles**—includes the entry of any two-axle highway vehicle, all-terrain vehicle, or motorized machinery into an AEI by any route other than a paved road or an improved gravel road.

- Low impact is the presence of two or fewer vehicles per project and duration of one day or less during a breeding season.
- Medium impact is the exceedance of either the number of vehicles or the duration criteria.
- High impact is the exceedance of both the number of vehicles and the duration criteria.

**Aircraft**—includes the operation of any aircraft below an elevation of 600 m (2,000 ft) above the highest ground level in the local vicinity.

- Low impact is the presence of one single-engine airplane and duration of one day or less during a breeding season.
- Medium impact is the exceedance of either the number of aircraft or the duration criteria.

- High impact is the exceedance of both the number of aircraft and the duration criteria.

Any use of helicopters, jet airplanes, and propeller airplanes with two or more engines is classified as medium impact or above, depending on duration.

**Other Light Production**—includes any activity not previously listed that causes additional light to occur in an AEI core area (e.g., plans for construction of a new building at the edge of a developed area may call for lighting at night to facilitate nighttime work that impacts an undeveloped core area).

- Low impact is the increase of light intensity by up to 0.05 fc and a duration of one night or less per project per breeding season.
- Medium impact is the exceedance of either the intensity or duration criteria.
- High impact is the exceedance of both the intensity and duration criteria.

Measurements for increases in light are taken at the AEI core area boundary closest to the light source if the source is outside the core, and at 10 m (33 ft) from the source if the source is inside the core. Light measurements for developed areas are taken at the edge of the developed area if the developed area is within an AEI core, or at the closest core boundary, if the developed area is outside of an AEI core.

**Other Noise Production**—includes any activity not previously listed except for explosives detonation that causes additional noise to occur in an AEI. For example, operation of machinery causes noise.

- Low impact is increasing noise levels in an AEI core by 6 dB(A) or less for one day or less per project per breeding season.
- Medium impact is the exceedance of either the level or the duration criteria.
- High impact is the exceedance of both the level and the duration criteria.

Measurements for increases in noise are taken at the AEI core boundary closest to the noise source if the source is outside the core, and at 10 m (33 ft) from the source if the source is inside the core. Noise measurements for developed areas are taken at the edge of the developed area if the developed area is within an AEI core, or at the closest core boundary if the developed area is outside of an AEI core.

#### **4.5.2 Activity Table**

The dates shown in the Activity Table (Table 2) are the dates between which the activity in the row is restricted under the guidelines of this site plan. Disturbance activities are of concern only when Southwestern Willow Flycatchers occupy an AEI. The AEI is always considered occupied between May 15 and September 15, or until surveys show the AEI to be unoccupied. The Southwestern Willow Flycatcher AEI is always considered unoccupied between September 16 and May 14, when flycatchers have migrated for the winter. For occupancy status of an AEI after completion of surveys, contact a LANS biologist (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

**Table 2. Restrictions on Activities in Undeveloped Occupied Southwestern Willow Flycatcher AEI**

	Levels of Impact	Core	Buffer
<i>People</i>			
	Low	No Restrictions	No Restrictions
	Medium	May 15 to August 15	No Restrictions
	High	May 15 to September 15	No Restrictions
<i>Vehicles</i>			
	Low	May 15 to September 15	No Restrictions
	Medium	May 15 to September 15	No Restrictions
	High	May 15 to September 15	No Restrictions
<i>Aircraft</i>			
	Low	No Restrictions	No Restrictions
	Medium	May 15 to August 15	May 15 to August 15
	High	May 15 to September 15	May 15 to August 15
<i>Other Light/Noise Production</i>			
	Low	May 15 to September 15	No Restrictions*
	Medium	May 15 to September 15	No Restrictions*
	High	May 15 to September 15	No Restrictions*

\* Noise or light production in the buffer is restricted if the activity would violate core area restriction on noise or light.

#### 4.6 Protective Measures

This section provides a list of management practices to apply in the AEI.

- No wetland vegetation will be removed outside of developed areas.
- Employ appropriate erosion and runoff controls to reduce soil loss.
- Avoid unnecessary disturbance to vegetation (e.g., excessive parking areas or equipment storage areas, off-road travel, materials storage areas, crossing of streams or washes).
- Avoid removal of vegetation along drainage systems and stream channels.
- Avoid all vegetation removals not absolutely necessary.
- Appropriate erosion controls must be put in place and periodically checked throughout the life of any projects.
- Revegetate all exposed soils as soon as feasible after disturbance to minimize erosion.

## **5.0 Southwestern Willow Flycatcher AEI Description**

### **5.1 Pajarito Canyon Southwestern Willow Flycatcher AEI**

#### **5.1.1 Allowable Habitat Alteration in the Buffer Area**

Since the purpose of the buffer area is to help maintain the core area as suitable Southwestern Willow Flycatcher habitat, habitat alteration in the buffer area will be extremely limited. There are two areas in which restrictions on habitat alteration are relaxed.

1. The mesa top of Mesita del Buey. This mesa top can be developed as long as restrictions on impacts to the core area are met.
2. Pajarito Road within the AEI. Mowing of upland vegetation is allowed up to 5 m (15 ft) from Pajarito Road, or to the fence, if the fence is within 9 m (30 ft). Vegetation must cover the roadsides to prevent sediment runoff, so mowed plants should be at least 5 cm (2 in) high. LANS biologists encourage the growth of willow throughout the AEI—even the area along Pajarito Road—to enhance habitat. If, within this area, it is absolutely necessary to remove new willow growth (i.e., to improve visibility for human safety), LANS biologists recommend that only willows at or above the level of the roadway surface be mowed.

## **IV. AREA OF ENVIRONMENTAL INTEREST SITE PLAN FOR THE JEMEZ MOUNTAINS SALAMANDER**

### **1.0 Species Description—Jemez Mountains Salamander**

#### **1.1 Status**

The Jemez Mountains Salamander was listed in New Mexico as endangered under the Wildlife Conservation Act of New Mexico in 2006 (NMDGF 2006). In September 2012 the USFWS proposed the Jemez Mountains Salamander as endangered under the ESA (77 FR 56481) and the final listing as endangered was on September 10, 2013 (78 FR 55599).

#### **1.2 General Biology**

The Jemez Mountains Salamander is endemic to the Jemez Mountains of north-central New Mexico and is found in Los Alamos, Rio Arriba, and Sandoval counties (Stebbins and Rierner 1950). It is one of two endemic plethodontid salamanders that occur in New Mexico. It occurs predominantly at elevations between 2,130 to 3,430 m (6,988 to 11,254 ft) in mixed-conifer forest with greater than 50 percent canopy cover consisting mainly of Douglas fir (*Pseudotsuga menziesii* [Mirb.] Franco), blue spruce (*Picea pungens* Engelm.), Engelmann spruce (*Picea engelmannii* Parry ex Engelm.), white fir (*Abies concolor* [Gord. & Glend.] Lindl. ex Hildebr.), limber pine (*Pinus flexilis* James), ponderosa pine, and quaking aspen (*Populus tremuloides* Michx.). The ground surface in forest areas has (a) moderate to high volumes of large fallen trees and other woody debris, especially coniferous logs at least 25 cm (10 in) in diameter, particularly Douglas fir, which are in contact with the soil in varying stages of decay from freshly fallen to nearly fully decomposed; or (b) structural features, such as rocks, bark, and

moss mats that provide the species with food and cover. Underground habitat in forest or meadow areas contains interstitial spaces provided by (a) igneous rock with fractures or loose rocky soils, (b) rotted tree root channels, or (c) burrows of rodents or large invertebrates (Degenhardt et al. 1996; 78 FR 9876).

Plethodontid salamanders, which lack both lungs and gills, breathe through the mucous membranes in their mouth and throat and through their moist skin. The Jemez Mountains Salamander is completely terrestrial and does not use standing surface water for any life stage (77 FR 56481). Present in its habitat year-round, the Jemez Mountains Salamander spends most of its life underground, but can be found on the surface when conditions are warm and wet, approximately July through October. During this time, the Jemez Mountains Salamander can be found under rocks, bark, and moss mats, and inside and under logs (Ramotnik 1986, Everett 2003). The Jemez Mountains Salamander eats invertebrates, including ants, mites, and beetles, and is thought to lay its eggs underground (78 FR 9876).

### **1.3 Threats**

Principal threats to habitat include historical fire exclusion and suppression and severe wildland fires; forest composition and structure conversions; post-fire rehabilitation; forest and fire management; roads, trails, and habitat fragmentation; recreation; and disease (77 FR 56482).

## **2.0 Impact of Human Activities**

### **2.1 Introduction**

Primary threats to the Jemez Mountains Salamander on LANL property are impacts to habitat quality or destruction of individual salamanders caused by LANL or Los Alamos County operations. Forested LANL property is also subject to impacts from severe wildland fire and wildfire suppression.

### **2.2 Impacts on Habitat Quality**

#### **2.2.1 Development**

Property at LANL varies from remote isolated land to heavily developed and/or industrialized. Most of the large developed areas at LANL are found on mesa tops, generally in the northern and western portion of LANL. The areas of Jemez Mountains Salamander habitat currently most impacted by development occur in Los Alamos Canyon. There is a secondary paved road (West Road) in the bottom of the canyon that exits the canyon on the north-facing slope through Jemez Mountains Salamander habitat. The canyon bottom also contains a recreational ice rink operated by Los Alamos County on an inholding owned by Los Alamos County. Development that reduces the occurrence of primary constituent elements of Jemez Mountains Salamander in core habitat would likely have a negative impact on the species.

#### **2.2.2 Pedestrians and Vehicles**

Many canyon bottoms and mesa tops at LANL have dirt roads traversing them. Most of these roads are gated; however, many of these roads are accessible to LANL employees and the public on foot or by bike. Some areas, such as Los Alamos Canyon, are frequently used by hikers and dog owners on active and historic trails that traverse the canyon, through Jemez Mountains



Salamander habitat in places. Maintenance of roads and trails in the habitat may have a negative impact on the species.

### **2.2.3 Severe Wildland Fire and Wildfire Suppression**

Stand-replacing wildfires significantly change forest composition and structure, and reduce canopy cover. Even ground wildfires may reduce the volume of fallen logs and large woody debris. Large areas of historic Jemez Mountains Salamander habitat have been impacted by stand-replacing wildfires associated with current forest stocking conditions, drought, and high temperatures (77 FR 56482). Forested habitats on LANL property are also subject to severe wildland fires. To mitigate wildfire risks, some areas of LANL have been treated for fuels reduction and creation of fuel breaks both pre-emptively and during active wildfire suppression. Both wildfires and wildfire suppression activities can negatively impact the primary constituent elements of Jemez Mountains Salamander core habitat.

## **2.3 Impacts on Individual Salamanders**

### **2.3.1 Disease**

The amphibian pathogenic fungus *Batrachochytrium dendrobatidis* (Bd) was found in a wild-caught Jemez Mountains Salamander in 2003 (Cummer et al. 2005) on the east side of the species' range and again in another Jemez Mountains Salamander in 2010 on the west side of the species' range (77 FR 56482). Bd causes the disease chytridiomycosis, whereby the Bd fungus attacks keratin in amphibians. In adult amphibians, keratin primarily occurs in the skin. The symptoms of chytridiomycosis can include sloughing of skin, lethargy, morbidity, and death. Chytridiomycosis has been linked with worldwide amphibian declines, die-offs, and extinctions, possibly in association with climate change (Pounds et al. 2006). Chytridiomycosis may be a threat to the Jemez Mountains Salamander because this disease is a threat to many other species of amphibians and the pathogen has been detected in the Jemez Mountains Salamander (77 FR 56482).

As part of a cooperative study with the New Mexico Department of Game and Fish between 2007 and 2013, various amphibian species, including the canyon tree frog (*Hyla arenicolor*), western chorus frog (*Pseudacris triseriata*), Woodhouse's toad (*Anaxyrus woodhousii*), tiger salamander (*Ambystoma tigrinum*), and Jemez Mountains Salamander were tested for Bd infection at LANL. To date, all sampling has been negative for Bd infection (Fresquez et al. 2013).

### **2.3.2 Destruction of Individual Salamanders**

During periods of the year when Jemez Mountains Salamanders are on the soil surface, when conditions are warm and wet (generally July to October), they are vulnerable to injury and mortality from soil-disturbing activities, including operation of heavy equipment in core habitat. They also are at risk to be found and collected by people.

## **3.0 AEI General Description for the Jemez Mountains Salamander**

The AEI consists of two areas—a core area and a buffer area. The core habitat is defined as suitable habitat where the Jemez Mountains Salamander occurs or may occur at LANL. The core habitat consists of sections of north-facing slope that contain the required micro-habitat to

support Jemez Mountains Salamander. The buffer area is 100 m (328 ft) wide extending outward from the edge of the core area.

### 3.1 Method for Identifying a Jemez Mountains Salamander AEI

The first step in identifying potential Jemez Mountains Salamander AEIs at LANL was to use a GIS to model habitat. Early modeling efforts by Hathcock (2008) identified areas of potential habitat and that model was further refined. The following parameters were modeled in the GIS:

- Elevation: 2,150 m (7,000 ft) and above
- Slope: Greater than 20 degrees
- Aspect: north-facing +/- 20 degrees
- Land cover: Mixed conifer
- Land use: Undeveloped
- Modeled habitat is only selected if it is greater than five contiguous 30 × 30 m (98 × 98 ft) pixels in size

Once this habitat layer was developed, a second layer was modeled that examined the level of shade in the habitat, also known as an illumination index. Since the Jemez Mountains Salamander needs cool moist conditions, an illumination index model would further highlight areas where this habitat type may occur or further reinforce the areas selected by the GIS modeling. The illumination index describes the amount and extent of solar radiation reaching the Earth's surface at a given point. This takes into account the topography that may cast shadows. The illumination model was developed using the 5 m (16 ft) resolution digital elevation model hillshade and using the Surface toolbox in ArcToolbox (Environmental Science Research Institute, Redlands, California) using the highest height of the sun on June 21 at 1:00 pm, altitude of 74.4 and Azimuth of 178.4, when the sun would be at its maximum height. These procedures were based on work done by Reilly et al. (2009).

Once this modeling was complete, LANS biologists performed field validation to verify the suitability of the modeled habitat. The goal was to verify that mixed conifer was still the dominant cover class in the selected area. The GIS analysis used data from a landcover map created by McKown et al. (2003). There have been changes in habitat from fire and extreme drought effects since this landcover map was published. Since LANL is on the extreme edge of Jemez Mountains Salamander lower elevational range, a key component in this part of its range is soil moisture content. During field validation, evidence of a moist mixed conifer habitat versus a dry mixed conifer habitat was noted. One of the key indicators used to delimit areas of moist versus dry mixed conifer during the field validation was the presence of white fir (Evans et al. 2011) combined with a high canopy cover.

Field validation of the model occurred in May 2013, or decisions were based on earlier field visits to the sites from other projects. Each field validation consisted of LANS biologists walking down all of the modeled habitat polygons to look for the presence of indicator features. If a polygon of modeled habitat contained white fir, indicating a moist wet conifer type habitat, a high canopy closure, and other signs of high habitat quality such as dead logs, moss, or other

areas that could be used as cover by the Jemez Mountains Salamander, then the polygon was marked for retention in the final core habitat. Polygons that did not contain the necessary habitat requirements were omitted.

After the field validation was complete, the final core habitat boundaries were hand digitized using ArcGIS (Environmental Science Research Institute, Redlands, California) by LANS biologists in and around the validated modeled polygon and areas between polygons, if appropriate. The final identified core habitat at LANL occurs on the north-facing slopes of canyons. Toward the rim of the canyon, the core boundaries end where the mixed conifer ends. In the canyon bottoms, the core boundary extends to the edge of the stream channel. The upstream and downstream core boundaries end where the mixed conifer ends. A buffer habitat was extended around the core to a distance of 100 m (328 ft) outward. The LANL Fenton Hill satellite facility in the Jemez Mountains off of New Mexico Highway 126 is on land leased to DOE by the Santa Fe National Forest. The entire footprint is considered to be developed core habitat for the Jemez Mountains Salamander, since proposed critical habitat is adjacent to the facility.

### **3.2 Location and Number of Jemez Mountains Salamander AEIs**

The identified Jemez Mountains Salamander core habitats were grouped by canyon system into AEIs, which contain contiguous and noncontiguous habitat areas. The largest contiguous section of habitat at LANL is in Los Alamos Canyon. There are two noncontiguous areas of habitat in Two-mile Canyon, four in Pajarito Canyon, one contiguous area in Cañon de Valle, and the entire Fenton Hill footprint.

## **4.0 AEI Management**

### **4.1 Overview**

This AEI management section provides guidelines for LANL operations to reduce or eliminate the threats to the Jemez Mountains Salamander from habitat alterations that reduce habitat quality. Habitat alterations are considered for all AEIs and for both core and buffer areas. Developed areas that have ongoing baseline levels of activities and are not suitable habitat for Jemez Mountains Salamander have different restrictions than undeveloped core or buffer areas. AEIs for different species may overlap, and an activity must meet the guidelines of all applicable site plans to be allowable. Protective measures are described as management practices that should be followed when working in AEIs.

### **4.2 Definition and Role of Occupancy in AEI Management**

Occupancy simply refers to whether or not an AEI is occupied by the Jemez Mountains Salamander. The Los Alamos Canyon AEI is known to be occupied based on past surveys. Surveys for the Jemez Mountains Salamander are known to have a very low detection rate for occupied areas, so at LANL, all AEIs are assumed to be occupied at all times. If needed, site-specific surveys will be conducted by federally permitted LANS biologists.

### **4.3 Definition and Role of Developed Areas in AEI Management**

Developed areas include all building structures, paved roads, improved gravel roads, and paved and unpaved parking lots. The majority of Jemez Mountains Salamander core habitat is in

undeveloped areas, except for the satellite facility at Fenton Hill and a small amount of habitat in Los Alamos Canyon where West Road crosses the habitat. Generally, developed areas will not have restrictions; however, some of the undeveloped sections within the footprint of Fenton Hill may have restrictions because they may contain Jemez Mountains Salamanders when they move to the surface between July and October. Any project that occurs within developed core habitat will be evaluated by LANS biologists for ESA compliance.

#### **4.4 General Description of Core and Buffer Areas and Allowable Area Development**

The purpose of buffer areas is to protect core areas from habitat degradation. The current levels of development in buffer and core areas represent baseline conditions for this site plan. No further development is allowed in the core area under the guidelines of this site plan. Any development in a buffer area will be reviewed by LANS biologists to ensure that there are no impacts to the core habitat.

#### **4.5 Emergency Actions**

If safety and/or property are immediately threatened by something occurring within an AEI (for example, wildfire, water line breakage, etc.) please contact a LANS biologist (505-665-3366) as soon as possible. If the emergency occurs outside of regular business hours, contact the Emergency Management Office (505-667-6211). This office will then communicate with the appropriate LANS personnel.

#### **4.6 Introduction to AEI Management Guidelines**

Section 4.7 provides the guidelines for habitat alterations and allowable activities in AEI core and buffer areas. It describes what and where habitat alterations are allowed under the guidelines of this site plan. If an activity does not meet the restrictions given in the guidelines, the activity must be individually reviewed for ESA compliance. This site plan only provides guidelines for the Jemez Mountains Salamander AEIs. If an activity is desired in an area with overlapping AEIs, all applicable site plans must be consulted. AEI maps show the location of all AEIs in an area. LANS biologists are available to help interpret site plans and answer questions (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

#### **4.7 Definition of and Restrictions on Habitat Alterations**

##### **4.7.1 Definition of Habitat Alterations**

Habitat alteration includes any action that alters the soil structure, vegetative components necessary to the species, water quality, or hydrology in undeveloped areas of an AEI. An actual activity may take place outside of the AEI and will be considered habitat alteration if consequences of the activity have effects inside the AEI core. Habitat alterations would also include soil pits for soil samples deeper than 15 cm (6 in) using either hand or mechanized augers. Any activity that might disturb the soil will need to be reviewed by LANS biologists.

The habitat components most important to the Jemez Mountains Salamander include soil structure and vegetative structure. The forest structure within an area designated as a Jemez Mountains Salamander AEI is important because it provides the necessary moist, cool microclimate.

#### **4.7.2 Fuels Management Practices to Reduce Wildfire Risk**

One of the primary threats to the Jemez Mountains Salamander is wildfire (77 FR 56482), but they also require habitat with a high canopy cover, which makes fuels reduction challenging. Within undeveloped core areas, thinning trees to a level of 80 percent canopy cover or higher is approved. Trees may not be thinned below 80 percent canopy cover without further ESA review by LANS biologists. Large logs on the ground should be left in place and not chipped.

Understory thinning that does not reduce total canopy cover below 80 percent is permitted. Large trees that are felled should be left as large logs on the ground. Smaller trees and understory shrubs that may be thinned should be dispersed and left on-site to aid in soil moisture retention. Thinning activities should not occur during the rainy season between July to October (or when freezing temperatures begin, whichever comes first) when the Jemez Mountains Salamander is found on the surface.

In buffer areas, thinning of trees can occur to the current LANL-approved prescription level (LAAO 2000). LANS biologists are available to provide guidance and mark trees for thinning (<http://int.lanl.gov/environment/bio/controls/index.shtml>).

#### **4.7.3 Utility Corridors**

Habitat alterations such as cutting down trees that threaten power lines are allowed within 8 m (26 ft) of either side of an existing electrical utility line at LANL under existing guidelines and engineering controls (Hathcock 2013). This level is approved in all areas of an AEI. New utility lines and utility lines requiring clearance of a right-of-way greater than 16 m (52 ft) total in core habitat must be individually reviewed for ESA compliance.

#### **4.7.4 Restrictions on Habitat Alterations**

Habitat alterations other than the fuels management practices and utility corridor maintenance described above are not allowed in undeveloped core areas under the guidelines of this site plan. If a project or activity is planned that would alter habitat in an undeveloped core area, it must be individually evaluated for ESA compliance. Habitat alterations in buffer areas must be reviewed by LANS biologists to ensure that there are no impacts to core habitat.

## REFERENCES CITED

- Allison, L.J., C.E. Paradzick, J.W. Rourke, and T.D. McCarthy. 2003. A characterization of vegetation in nesting and non-nesting plots for southwestern willow flycatchers in central Arizona. In *Ecology and Conservation of the Willow Flycatcher* (eds) M.K. Sogge, B.E. Kus, S.J. Sferra & M.J. Whitfield. *Studies In Avian Biology*: Cooper Ornithological Society.
- Brown, B.T., G.S. Mills, C. Powels, W.A. Russell, G.D. Therres, and J.J. Pottie. 1999. The influence of weapons-testing noise on bald eagle behavior. *Journal of Raptor Research* 33:227–32.
- Brown, B.T. and L.E. Stevens. 1997. Winter bald eagle distribution is inversely correlated with human activity along the Colorado River, Arizona. *Journal of Raptor Research* 31:7–10.
- Burns, M.J. 1995. White Rock noise measurements during PHERMEX tests, 11 March 1995. Los Alamos National Laboratory Memorandum DX-DO:DARHT-95-31 and 35.
- Cain, B.W. 1988. The impact of environmental contaminants on Southwestern USA raptors. *Proceedings of the Southwest Raptor Management Symposium and Workshop* (ed) by R.L. Glineski, B.G. Pendleton, M.B. Moss, M.N. LeFranc Jr., B.A. Millsap & S.W. Hoffman, 348–54. Tucson, AZ, USA, May 21–24, 1986: National Wildlife Federation, Washington, D.C., USA.
- Cummer, M. R., D. E. Green, and E. M. O'Neill. 2005. Aquatic chytrid pathogen detected in terrestrial plethodontid salamander. *Herpetological Review* 36(3):248–249.
- Degenhardt, W.G., C.W. Painter, and A.H. Price. 1996. *Amphibians and Reptiles of New Mexico*. University of New Mexico Press, Albuquerque, New Mexico.
- Delaney, D.K., T.G. Grubb, P. Beier, L.L. Pater, and M.H. Reiser. 1999. Effects of helicopter noise on Mexican spotted owls. *Journal of Wildlife Management* 63:60–76.
- Department of Energy (DOE). 1996. Final Environmental Impact Statement for the Dual-Axis Radiographic Hydrodynamic Test Facility Mitigation Action Plan. DOE/EIS-0228.
- Durst, S.L., M.K. Sogge, H.C. English, S.O. Williams, B.E. Kus, and S.J. Sferra. 2006. Southwestern Willow Flycatcher breeding site and territory summary – 2005. USGS Southwest Biological Science Center report to the U.S. Bureau of Reclamation.
- Durst, S.L., T.C. Theimer, E.H. Paxton, and M.K. Sogge. 2008. Age, habitat, and yearly variation in the diet of a generalist insectivore, the southwestern willow flycatcher. *Condor* 110:514–25.
- Environmental Protection Agency (EPA). 2010. National Pollutant Discharge Elimination System Storm Water Individual Permit number NM0030759.



- Evans, A.M., R.G. Everett, S.L. Stephens, and J.A. Youtz. 2011. Comprehensive Fuels Treatment Practices Guide for Mixed Conifer Forests: California, Central and Southern Rockies, and the Southwest. *Forest Guild* 106pp.
- Everett, E. 2003. Habitat Characterization and Environmental Influences of the Jemez Mountains Salamander (*Plethodon neomexicanus*). M.S. Thesis, New Mexico State University, Las Cruces, New Mexico, 55pp.
- Finch, D.M. and J.F. Kelly. 1999. Status and migration of the southwestern willow flycatcher in New Mexico. In *Rio Grande Ecosystems: Linking Land, Water, and People: Toward a Sustainable Future for the Middle Rio Grande Basin* (ed.) D.M. Finch, J.C. Whitney, J.F. Kelly & S.R. Loftin, 197–203, Albuquerque, New Mexico.
- Fresquez, P.R., C. Hathcock, D. Keller, and J. Fair. 2013. “Foodstuffs and Biota Monitoring,” in the 2012 Annual Site Environmental Report 2012. Los Alamos National Laboratory report LA-UR-13-27065.
- Gallegos, A., G. Gonzales, K. Bennett, and L. Pratt. 1997. “Preliminary Risk Assessment of the Mexican Spotted Owl under a Spatially-weighted Foraging Regime at the Los Alamos National Laboratory.” Los Alamos National Laboratory report LA-13259-MS.
- Ganey, J.L. and R.P. Balda. 1994. Habitat selection by Mexican spotted owls in northern Arizona. *Auk* 111:162–69.
- Gonzales, G.J., A.F. Gallegos, K.D. Bennett, M.A. Mullen, and T.S. Foxx. 1998. “Preliminary Risk Assessment of the Southwestern Willow Flycatcher (*Empidonax traillii extimus*) at the Los Alamos National Laboratory.” Los Alamos National Laboratory report LA-13508-MS.
- Gonzales, G., R. Ryti, P. Newell, A. Gallegos, and S. Sherwood. 2004. “Modeled Ecological Risk to the Deer Mouse, Mexican Spotted Owl, and Western Bluebird at the Los Alamos National Laboratory using ECORSK.7.” Los Alamos National Laboratory report LA-14118.
- Gonzales, G., P. Gallegos, A. Gallegos, and K. Bennett. 2009. “Site-wide Application of ECORSK.9 at the Los Alamos National Laboratory.” Los Alamos National Laboratory report LA-UR-09-02833.
- Grubb, T.G. and R.M. King. 1991. Assessing human disturbance of breeding bald eagles with classification tree models. *Journal of Wildlife Management* 55:500–11.
- Grubb, T.G. and W.W. Bowerman. 1997. Variations in breeding bald eagle responses to jets, light planes, and helicopters. *Journal of Raptor Research* 31:213–22.
- Hansen, L.A. 2004. Sigma Mesa Construction Debris Recycling Project. Los Alamos National Laboratory Memorandum RRES/Ecol-04-0049.

- Hansen, L.A. 2005. "A Biological Assessment of the Potential Effects of the Operation of an Asphalt Batch Plant and a Rock Crusher at Sigma Mesa on Federally Listed Threatened and Endangered Species." Los Alamos National Laboratory report LA-CP-05-0293.
- Hansen, L.A. 2009. "Sound studies of the Biosafety Level 3 (BSL-3) Laboratory at TA-3, Building 1076." Los Alamos National Laboratory report LA-UR-09-05482.
- Hathcock, C. D. 2013. Email from C. D. Hathcock to S. Martinez on June 20, 2013, Los Alamos National Laboratory communication.
- Hathcock, C.D. and T.K. Haarmann. 2008. Development of a predictive model for habitat of the Mexican spotted owl in Northern New Mexico. *Southwestern Naturalist* 53:34–38.
- Hathcock, C.D., L.A. Hansen, and D.C. Keller. 2010. Occupancy of habitats by Mexican spotted owl in relation to explosives noise and recreational access at Los Alamos National Laboratory. *Western Birds* 41:102–06.
- Hatten, J.R. and C.E. Paradzick. 2003. A multiscaled model of southwestern willow flycatcher breeding habitat. *Journal of Wildlife Management* 67:774–88.
- Holthuijzen, A.M.A., W.G. Eastland, A.R. Ansell, M.N. Kochert, R.D. Williams, and L.S. Young. 1990. Effects of blasting on behavior and productivity of nesting prairie falcons. *Wildlife Society Bulletin* 18:270–81.
- Huchton, K., S.W. Koch, and R.J. Robinson. 1997. "An analysis of background noise in selected canyons of Los Alamos County." Los Alamos National Laboratory report LA-13372-MS.
- Johnson, J.A. and T.H. Johnson. 1985. "Timber type model of spotted owl habitat in northern New Mexico," New Mexico Department of Game and Fish report, Santa Fe, New Mexico.
- Johnson, T.H. 1994. "Peregrine falcon habitat management in the national forests of New Mexico." USDA Forest Service unpublished report.
- Johnson, T.H. 1998. "Topographic-Landsat model of suitable spotted owl habitat around Los Alamos National Laboratory." Los Alamos National Laboratory unpublished report.
- Keller, D.C. 2015. "Biological Assessment for the Addition of the Western Distinct Population Segment of the Yellow-billed Cuckoo and the New Mexico Meadow Jumping Mouse to the Los Alamos National Laboratory Habitat Management Plan." Los Alamos National Laboratory report LA-UR 15-23445.
- Keller, D.C. and D. Risberg. 1995. "Biological and floodplain/wetland assessment for the Dual-Axis Radiographic Hydrodynamics Test Facility (DARHT)." Los Alamos National Laboratory report LA-UR-95-647.

- Keller, D.C. and T.S. Foxx. 1997. "Biological assessment for threatened and endangered species at the DP Road Tract land transfer." Los Alamos National Laboratory unpublished report.
- Knight, J.L. and S.S. Vrooman. 1999. "A study of construction machinery noise levels at Los Alamos National Laboratory." Los Alamos National Laboratory report LA-UR-99-5740.
- Los Alamos Area Office (Department of Energy) (LAAO). 2000. "Environmental Assessment for the Wildfire Hazard Reduction and Forest Health Improvement Program at Los Alamos National Laboratory, Los Alamos, New Mexico." DOE-EA-1329.
- Los Alamos National Laboratory (LANL). 2016. "Environmental Protection. Los Alamos National Laboratory Program Description 400, Revision 2."
- McKown, B., S.W. Koch, R.G. Balice, and P. Neville. 2003. "Land Cover Classification Map for the Eastern Jemez Region." Los Alamos National Laboratory report LA-14029.
- New Mexico Department of Game and Fish (NMDGF), April 2006. Threatened and Endangered Species of New Mexico—2006 Draft Biennial Review and Recommendations. Authority: Wildlife Conservation Act (NMSA 17-2-37+B1 through 17-2-46, 1978).
- Paakkonen, R. 1991. Low-frequency noise impulses from explosions. *Journal of Low Frequency Noise & Vibration* 10:78–82.
- Pounds, J.A., M.R. Bustamante, L.A. Coloma, J.A. Consuegra, M.P.L. Fogden, P.N. Foter, E. La Marca, K.L. Masters, A. Merino-Viteri, R. Puschendorf, S.R. Ron, G.A. Sanchez-Azofeifa, C.J. Still, and B.E. Yound. 2006. Widespread amphibian extinctions from epidemic disease driven by global warming. *Nature* 439(7073):161-167.
- Ramotnik, C.A. 1986. "Status Report: *Plethodon neomexicanus* Jemez Mountains Salamander." U.S. Fish and Wildlife Service Report.
- Reilly, E.C., D. Clayton, R.S. Nauman, D.H. Olson, H.H. Welsh Jr, B. Devlin. 2009. Spatial Model of Optimal Habitat for the Siskiyou Mountains Salamander (*Plethodon stormi*) North of the Siskyou Crest. Chapter 2. In: Olson, D.H., D. Clayton, R.S. Nauman, and H.H. Welsh Jr (Editors). 2009. Conservation of the Siskiyou Mountains Salamander (*Plethodon stormi*). *Northwest Fauna* 6:1-73.
- Stebbins, R.C., and W.J. Riemer. 1950. A New Species of Plethodontid Salamander from the Jemez Mountains of New Mexico. *Copeia* 1950(2):73–80.
- Steidl, R.J. and R.G. Anthony. 2000. Experimental effects of human activity on breeding bald eagles. *Ecological Applications* 10:258–68.
- Swarthout, E.C.H. and R.J. Steidl. 2001. Flush responses of Mexican spotted owls to recreationists. *Journal of Wildlife Management* 65:312–17.

- Swarthout, E.C.H. and R.J. Steidl. 2003. Experimental effects of hiking on breeding Mexican spotted owls. *Conservation Biology* 17:307–15.
- Trujillo, C.T. and E. Racine. 1995. Meeting notes on the 13.8-kV transmission line tree trimming. Los Alamos National Laboratory Memorandum FSS-8-95-114.
- U.S. Fish and Wildlife Service (USFWS). 1995. “Recovery plan for the Mexican spotted owl.” Albuquerque, New Mexico.
- U.S. Fish and Wildlife Service (USFWS). 2002. “Southwestern willow flycatcher recovery plan.” Albuquerque, New Mexico.
- U.S. Fish and Wildlife Service (USFWS). 2012. “Recovery plan for the Mexican Spotted Owl, First Revision.” Albuquerque, New Mexico.
- Vigil, E.A. 1995. Noise measurements at State Road 4 and Bandelier turn-off at State Road 4 during PHERMEX test on March 11, 1995. Los Alamos National Laboratory Memorandum ESH-5:95-11825.
- Vrooman, S.S., S.W. Koch, and J.L. Knight. 2000. “Temporal and spatial variation in background noise levels at Los Alamos National Laboratory.” Los Alamos National Laboratory report LA-13684-MS.
- Wiesenborn, W.D. and S.L. Heydon. 2007. Diets of breeding southwestern willow flycatchers in different habitats. *Wilson Journal of Ornithology* 119:547–57.
- Willey, D.W. 2013. Diet of Mexican Spotted Owls in Utah and Arizona. *The Wilson Journal of Ornithology* 125(4):775-781.
- Yong, W. and D.M. Finch. 1997. Migration of the willow flycatcher along the middle Rio Grande. *Wilson Bulletin* 109:253–68.

## APPENDIX

**Table A-1. The Percentage of each Food Type Found in Mexican Spotted Owl Food Remains at LANL**

Species	Relative Abundance
<i>Neotoma</i> spp.	26.22
<i>Peromyscus</i> spp.	10.22
<i>Microtus</i> spp.	4.44
Gophers	4.89
Bats	5.78
Chipmunks	0.89
Rabbits	12.89
Shrews	1.33
Small Mammal	1.33
Medium Mammal	1.78
Medium Bird	8.00
Small Bird	4.89
Nocturnal Birds	0.89
Reptiles	4.89
Arthropods	11.56

**Table A-2. Preliminary Light Measurements in ftc for Mexican Spotted Owl Site Plan**

		Distance from Source			
	Source (street light)	5 m	10 m	15 m	20 m
ftc	3.70	2.28	1.20	0.62	0.32



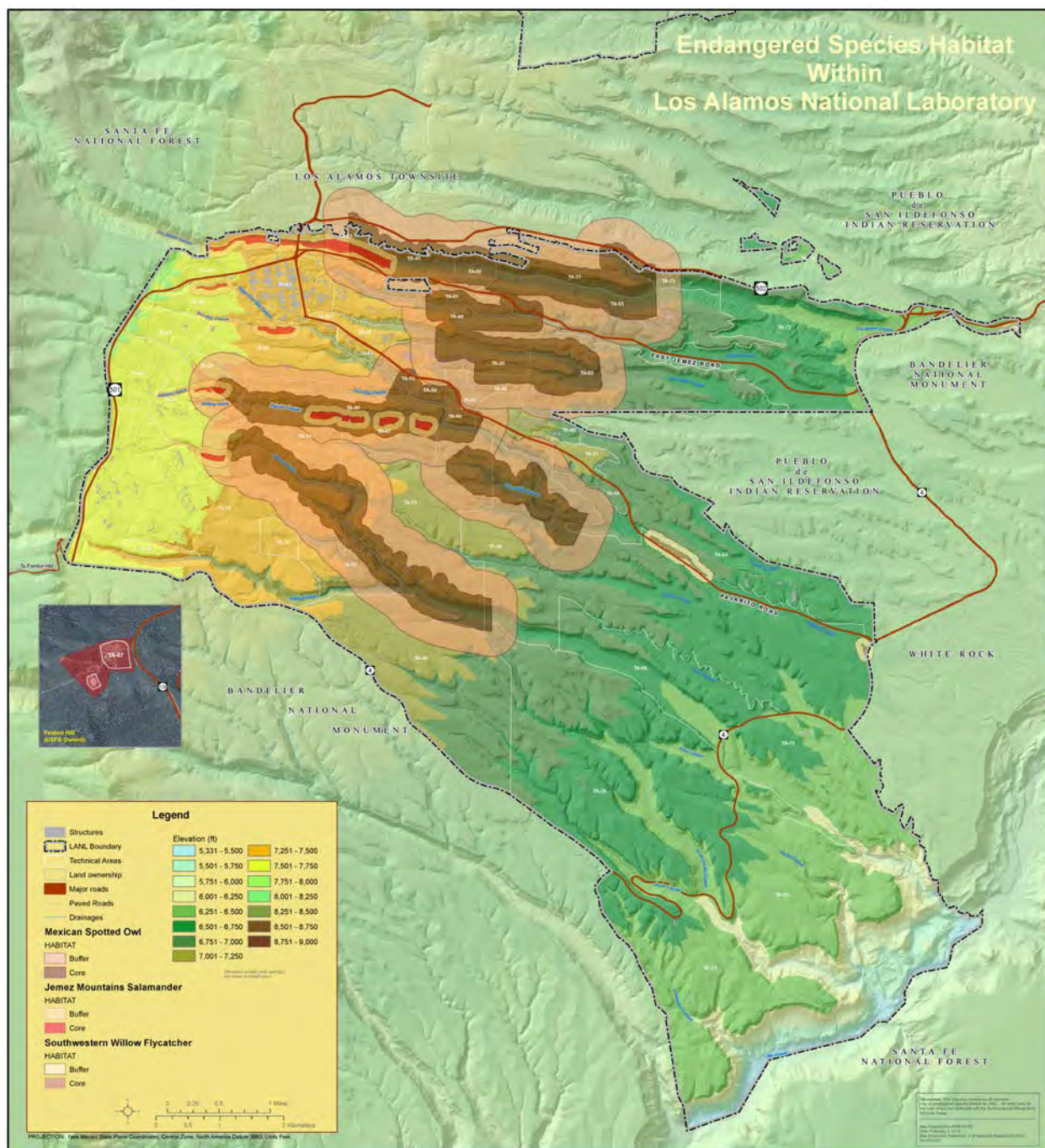


Figure A-1. Most recent map of all AEIs at LANL



Attachment 14: **MSGP IPAC TRUST RESOURCES REPORT**

# MSGP

---

## *IPaC Trust Resource Report*

Generated July 27, 2015 07:29 PM MDT



US Fish &amp; Wildlife Service

# IPaC Trust Resource Report



## Project Description

NAME

MSGP

PROJECT CODE

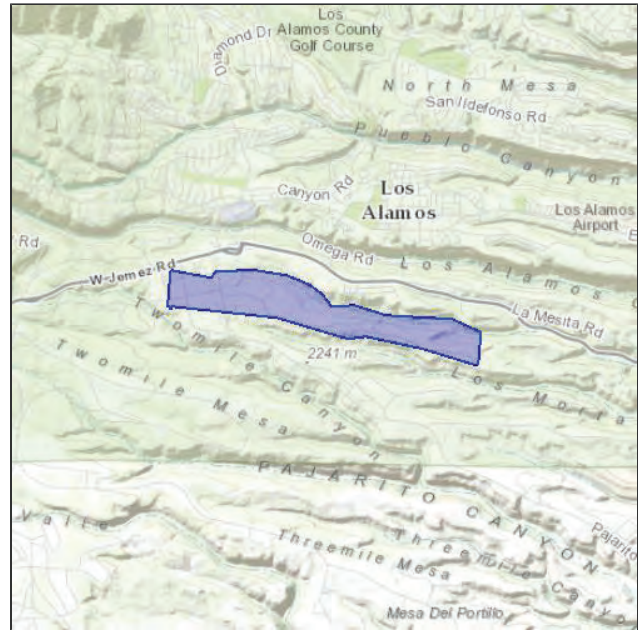
LXATM-TI5EJ-BAJEQ-3NC5E-SOGYTE

LOCATION

Los Alamos County, New Mexico

DESCRIPTION

Facilities that discharge to Sandia Canyon within TA-3 and TA-60. Industrial facilities subject to the MSGP. July, 2015.



## U.S. Fish & Wildlife Contact Information

Species in this report are managed by:

### New Mexico Ecological Services Field Office

2105 Osuna Road Ne

Albuquerque, NM 87113-1001

(505) 346-2525

# Endangered Species

Proposed, candidate, threatened, and endangered species that are managed by the [Endangered Species Program](#) and should be considered as part of an effect analysis for this project.

This unofficial species list is for informational purposes only and does not fulfill the requirements under [Section 7](#) of the Endangered Species Act, which states that Federal agencies are required to "request of the Secretary of Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action." This requirement applies to projects which are conducted, permitted or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can be obtained by returning to this project on the IPaC website and requesting an Official Species List from the regulatory documents section.

## Amphibians

### Jemez Mountains Salamander *Plethodon neomexicanus*

**Endangered**

#### CRITICAL HABITAT

There is **final** critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=D019>

## Birds

### Mexican Spotted Owl *Strix occidentalis lucida*

**Threatened**

#### CRITICAL HABITAT

There is **final** critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B074>

### Southwestern Willow Flycatcher *Empidonax traillii extimus*

**Endangered**

#### CRITICAL HABITAT

There is **final** critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B094>

### Yellow-billed Cuckoo *Coccyzus americanus*

**Threatened**

#### CRITICAL HABITAT

There is **proposed** critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B06R>

## Mammals

### New Mexico Meadow Jumping Mouse *Zapus hudsonius luteus*

**Endangered**

#### CRITICAL HABITAT

There is **proposed** critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=A0BX>

## Critical Habitats

Potential effects to critical habitat(s) within the project area must be analyzed along with the endangered species themselves.

There is no critical habitat within this project area

# Migratory Birds

Birds are protected by the [Migratory Bird Treaty Act](#) and the Bald and Golden Eagle Protection Act.

Any activity which results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service (1). There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

You are responsible for complying with the appropriate regulations for the protection of birds as part of this project. This involves analyzing potential impacts and implementing appropriate conservation measures for all project activities.

## **Bald Eagle** *Haliaeetus leucocephalus*

Season: Wintering

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?scode=B008>

**Bird of conservation concern**

## **Bendire's Thrasher** *Toxostoma bendirei*

Season: Breeding

**Bird of conservation concern**

## **Brewer's Sparrow** *Spizella breweri*

Season: Migrating

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?scode=B0HA>

**Bird of conservation concern**

## **Brown-capped Rosy-finch** *Leucosticte australis*

Season: Wintering

**Bird of conservation concern**

## **Burrowing Owl** *Athene cunicularia*

Season: Breeding

**Bird of conservation concern**

## **Cassin's Finch** *Carpodacus cassinii*

Year-round

**Bird of conservation concern**

## **Flammulated Owl** *Otus flammeolus*

Season: Breeding

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?scode=B0DK>

**Bird of conservation concern**

## **Fox Sparrow** *Passerella iliaca*

Season: Wintering

**Bird of conservation concern**

## **Golden Eagle** *Aquila chrysaetos*

Year-round

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?scode=B0DV>

**Bird of conservation concern**

## **Grace's Warbler** *Dendroica graciae*

Season: Breeding

**Bird of conservation concern**

## **Juniper Titmouse** *Baeolophus ridgwayi*

Year-round

**Bird of conservation concern**

## **Lewis's Woodpecker** *Melanerpes lewis*

Year-round

**Bird of conservation concern**

## **Loggerhead Shrike** *Lanius ludovicianus*

Year-round

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?scode=B0FY>

**Bird of conservation concern**



<b>Mountain Plover</b> Charadrius montanus	<b>Bird of conservation concern</b>
Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B078">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B078</a>	
<b>Olive-sided Flycatcher</b> Contopus cooperi	<b>Bird of conservation concern</b>
Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0AN">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0AN</a>	
<b>Peregrine Falcon</b> Falco peregrinus	<b>Bird of conservation concern</b>
Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FU">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FU</a>	
<b>Pinyon Jay</b> Gymnorhinus cyanocephalus	<b>Bird of conservation concern</b>
Year-round	
<b>Prairie Falcon</b> Falco mexicanus	<b>Bird of conservation concern</b>
Year-round <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0ER">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0ER</a>	
<b>Swainson's Hawk</b> Buteo swainsoni	<b>Bird of conservation concern</b>
Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B070">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B070</a>	
<b>Williamson's Sapsucker</b> Sphyrapicus thyroideus	<b>Bird of conservation concern</b>
Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FX">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FX</a>	
<b>Willow Flycatcher</b> Empidonax traillii	<b>Bird of conservation concern</b>
Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0F6">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0F6</a>	

## Refuges

Any activity proposed on [National Wildlife Refuge](#) lands must undergo a 'Compatibility Determination' conducted by the Refuge. If your project overlaps or otherwise impacts a Refuge, please contact that Refuge to discuss the authorization process.

There are no refuges within this project area

# Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes.

Project proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate [U.S. Army Corps of Engineers District](#).

## DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

## DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

## DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

There are no wetlands identified in this project area

Attachment 15: **EPC-CP-PIP-2101, *NPDES MULTI-SECTOR GENERAL PERMIT***

**EPC-CP-PIP-2101**

Revision: 1



Effective Date: 10/20/2021

Next Review Date: 10/20/2024

**Environment, Safety, Health, Quality, Safeguards and Security Directorate**  
**Environmental Protection and Compliance Division – Compliance Programs Group**  
**Program Implementation Plan (PIP)**

## **NPDES Multi-Sector General Permit**

### **Document Owner/Subject Matter Expert:**

Name:	Organization:	Signature:	Date:
Terrill W. Lemke	EPC-CP	Signature on File	10-19-21

**Derivative Classifier:** ☒ **Unclassified** or ☐ \_\_\_\_\_

Name:	Organization:	Signature:	Date:
Steven E. Wolfel	EPC-CP	Signature on File	10-20-21

### **Approval Signatures:**

EPC-CP Reviewer:	Organization:	Signature:	Date:
Holly L. Wheeler	EPC-CP	Signature on File	10-20-21
EPC-CP Team Leader:	Organization:	Signature:	Date:
Terrill W. Lemke, Team Leader	EPC-CP	Signature on File	10-19-21
EPC-CP Group Leader:	Organization:	Signature:	Date:
Taunia J. Sandquist, Group Leader	EPC-CP	Signature on File	10-20-21

*This copy is uncontrolled.  
Users are responsible for ensuring they work to the latest approved version.  
To document a required read, Login to [UTrain](#), and go to the Advanced Search.*

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 2 of 35
	Revision: 1	Effective Date: 10/20/2021

### REVISION HISTORY

Document Number and Revision	Effective Date	Description of Changes
ENV-RCRA-QAPP-MSGP, R0	06/03	New Document.
ENV-RCRA-QAPP-MSGP, R1	12/05	Annual review and revision.
ENV-RCRA-QAPP-MSGP, R2	07/07	Annual review, incorporated organizational restructure changes.
ENV-RCRA-QAPP-MSGP, R3	07/09	Biennial Review and Revision.
ENV-RCRA-QAPP-MSGP, R4	07/09	Biennial Review and Revision.
ENV-CP-QAPP-MSGP, R5	10/13	Biennial Review and Revision. New format implemented.
EPC-CP-PIP-2101, R0	01/19/2021	Initial issue under this document number. It supersedes/replaces ENV-CP-QAPP-MSGP, R5. Changes include revision to the document template, addition of MLs, software requirements, and detail to Section 4.5.
EPC-CP-PIP-2101 R1	10/20/2021	Update to procedure numbers and Attachment 2. Deletion of Appendices B, C and D with associated update to text in Section 3.3.2.



<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 3 of 35
	Revision: 1	Effective Date: 10/20/2021

## Table of Contents

Table of Contents.....	3
1.0 Purpose.....	5
2.0 Authority and Applicability.....	5
2.1 Authority.....	5
2.2 Applicability.....	5
3.0 Program Scope.....	5
3.1 Requirements.....	5
3.2 Description of Work Activities.....	6
3.3 Graded Approach.....	6
3.3.1 Management Level Determination.....	6
3.3.2 Software Risk Levels.....	6
4.0 Program-Specific Quality Assurance Requirements and Implementing Work Activities.....	6
4.1 Criterion 1 – Management/Program.....	6
4.1.1 Program Goals.....	6
4.1.2 Roles and Responsibilities.....	7
4.1.2.1 Group Leader.....	7
4.1.2.2 Storm Water Permitting/Compliance Team Leader.....	7
4.1.2.3 MSGP Program Lead.....	8
4.1.2.4 Storm Water Tracking System/Discharge Monitoring Report Manager.....	9
4.1.2.5 MSGP Personnel.....	9
4.1.2.6 EIM Database Administrator.....	10
4.1.2.7 Corrective Action Reporting Database Administrator.....	10
4.1.2.8 Maintenance Connection Database Administrator.....	10
4.1.3 Internal Interfaces.....	10
4.1.3.1 Facility Operations Directors.....	10
4.1.3.2 Permitted Industrial Activity Facility Owner/Operator.....	11
4.1.3.3 Deployed Environmental Professional.....	11
4.1.3.4 Sample Management Office (SMO).....	11
4.1.4 External Interfaces.....	12
4.1.4.1 Environmental Protection Agency.....	12
4.1.4.2 New Mexico Environmental Department.....	12
4.1.4.3 National Nuclear Safety Administration/Los Alamos Field Office.....	12
4.1.4.4 Analytical Laboratory Contractors.....	12
4.2 Criterion 2 – Management/Personnel Training and Qualification.....	13
4.3 Criterion 3 – Management/Quality Improvement.....	13
4.3.1 Performance Reporting.....	13
4.3.2 Corrective Actions.....	14
4.4 Criterion 4 – Management/Documents and Records.....	14
4.4.1 Document Control.....	14
4.4.2 Procedures.....	14
4.4.3 Electronic Media.....	15
4.4.4 Records Management.....	15

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 4 of 35
	Revision: 1	Effective Date: 10/20/2021

4.5	Criterion 5 – Performance/Work Processes.....	16
4.5.1	Work Processes.....	17
4.5.2	Stormwater Pollution Prevention Plans.....	17
4.5.3	Inspections .....	17
4.5.4	Stormwater Corrective Actions.....	18
4.5.4.1	Responding to Water Quality Exceedances.....	18
4.5.5	Stormwater Monitoring .....	18
4.5.5.1	Quality Control Samples .....	20
4.5.6	Reporting .....	21
4.5.6.1	Discharge Monitoring Reports.....	21
4.5.6.2	Annual Reports .....	22
4.6	Criterion 6 – Performance/Design .....	22
4.7	Criterion 7 – Performance/Procurement .....	23
4.8	Criterion 8 – Performance/Inspection and Acceptance Testing .....	23
4.9	Criterion 9 – Assessment/Management Assessment .....	23
4.10	Criterion 10 – Assessment/Independent Assessment .....	23
4.11	Suspect/Counterfeit Items Prevention .....	23
4.12	Safety Software Quality Assurance Requirements for Nuclear Facilities.....	24
5.0	Implementation .....	24
6.0	Training .....	24
7.0	Documents and Records.....	24
8.0	Definitions and Acronyms.....	24
9.0	References .....	25
10.0	Appendices.....	27
11.0	Attachments .....	27
12.0	Contact Information .....	27
	Appendix A: NPDES Multi-Sector General Permit Program Management Level Determination, MLDS- TA-60-324 Rev. 0.....	28
	Attachment 1: Summary of QA Requirements and Program-Level (Local) Work Practices.....	32
	Attachment 2: MSGP Facilities Associated with Industrial Activities .....	35

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 5 of 35
	Revision: 1	Effective Date: 10/20/2021

## 1.0 PURPOSE

This document describes the Program Implementation Plan (PIP) for the National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP) Program at Los Alamos National Laboratory (LANL or the Laboratory). Performance of the processes and procedures described herein, are in accordance with EPC-CP-QAP-001, *Environmental Compliance Programs Quality Assurance Plan*. This PIP provides detail and context regarding the implementation of those work activities generally described in EPC-CP-QAP-001. Work conducted under this program ensures compliance with the MSGP and the Clean Water Act.

## 2.0 AUTHORITY AND APPLICABILITY

### 2.1 Authority

This document is issued under the authority of the Environmental Protection and Compliance Division's Compliance Programs Group Leader to direct the management and operation of the MSGP Program.

### 2.2 Applicability

This PIP applies to personnel performing work by or for the MSGP Program, including but not limited to Triad National Security, LLC (Triad) employees, subcontractors and suppliers at all tiers (in accordance with subcontract documents), students, guests, and associates.

## 3.0 PROGRAM SCOPE

The MSGP Program is responsible for compliance oversight of Triad's NPDES MSGP, coordination and performance of institutional MSGP stormwater compliance activities, and developing and implementing institutional standards and policies regarding MSGP stormwater management. EPC-CP is the institutional point of contact regarding MSGP environmental compliance interactions with entities outside of LANL (i.e., regulatory agencies, stakeholders, and the public).

### 3.1 Requirements

The MSGP Program satisfies requirements contained in the following documents:

- EPC-CP-QAP-001, Section 3.3
- NPDES MSGP
- Title 40 of the Code of Federal Regulations (CFR) Part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants*
- Title 20, Chapter 6, Part 4 of the New Mexico Administrative Code (NMAC), *Standards for Interstate and Intrastate Surface Waters*

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 6 of 35
	Revision: 1	Effective Date: 10/20/2021

### **3.2 Description of Work Activities**

Triad will implement the monitoring requirements specified by the most current NPDES MSGP for industrial activities at LANL. The EPC-CP Storm Water Permitting/Compliance Team oversees institutional stormwater compliance related activities at the Laboratory.

### **3.3 Graded Approach**

The following sections provide reference to the applicable Management Level Determinations and Software Risk Level forms.

#### **3.3.1 Management Level Determination**

The following Management Level Determinations are applicable to equipment and/or work activities for the MSGP Program (see Appendix A):

- ML-4, per MLDS No.: MLDS-TA-60-324, Revision 0.

#### **3.3.2 Software Risk Levels**

The Environmental Information Management (EIM), Maintenance Connection, and MSGP Corrective Action Oracle APEX software do not trigger any of the Reasonable Probability Criteria from P1040, Section 3.3.1. Therefore, the completion of a Safety/Non-Safety Determination, Categorization, and Software Risk Level (SRL) (Form 2033) is not required and the software is considered Non-Safety/Commercially Controlled.

### **4.0 PROGRAM-SPECIFIC QUALITY ASSURANCE REQUIREMENTS AND IMPLEMENTING WORK ACTIVITIES**

Based on the Graded Approach results referenced above, this PIP is determined to be consistent with the work activity types covered by EPC-CP-QAP-001, Section 3.3. Attachment 1 presents a summary of the work practices (procedures, instructions, etc.,) that EPC-CP uses to meet the quality assurance (QA) requirements of SD300/Department of Energy (DOE) Order 414.1D, Chg. 2.

#### **4.1 Criterion 1 – Management/Program**

##### **4.1.1 Program Goals**

The MSGP Program supports EPC Division efforts to provide leadership in environmental protection and compliance services and compliance support to anticipate and manage environmental risk in support of Triad's mission.

Triad complies with the monitoring requirements, such as parameters, frequency of sampling, reporting, etc., set forth in the NPDES MSGP for industrial point source discharges through the Laboratory's MSGP Program. Compliance is demonstrated through the successful implementation of this PIP and applicable procedures.

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 7 of 35
	Revision: 1	Effective Date: 10/20/2021

#### **4.1.2 Roles and Responsibilities**

EPC-CP is responsible for the Laboratory's MSGP Program and a description of the group organization, levels of authority, and lines of communication are found within this PIP. EPC-CP group is organized by program teams under the line management direction of the Group Leader. Teams are cross-functional and focus on specific Program responsibilities, deliverables, or products. Program teams are guided by Team Leaders who have the responsibility to assure that the program is properly implemented. The following sections identify the roles and responsibilities for EPC-CP personnel, contractors, and program interfaces.

##### **4.1.2.1 Group Leader**

- Assure that the program has adequate resources (e.g., budget, staffing, etc.) and that qualified staff properly gather and evaluate information submitted to the Environmental Protection Agency (EPA) as required by the MSGP Program.
- Sign Discharge Monitoring Reports (DMR), Annual Reports, Quarterly Visual Assessment Certifications, and change Notices of Intent (NOIs) prior to submittal to the EPA.
- Ensure that program personnel conduct procurements in accordance with P840-1, *Quality Assurance for Procurements*.
- Plan, conduct, and document periodic management assessments and Management Observation and Verifications (MOVs) of MSGP Program activities as required by P328-3 and P328-4.

##### **4.1.2.2 Storm Water Permitting/Compliance Team Leader**

- Ensure that program personnel perform work associated with the MSGP Program in accordance with the processes, procedures, and requirements specified in this plan.
- Ensure all MSGP Program personnel have the appropriate level of education, experience, and training to perform their job duties.
- Ensure that the most recent versions of the quality-related documents are used for all activities.
- Monitor and trend MSGP Program performance and track deficiencies.
- Support Facility Operations Directors (FODs) and Deployed Environmental Professionals (DEPs) with the implementation of corrective actions in a timely manner.
- Sign/submit DMRs, Annual Reports, Quarterly Visual Assessment Certifications, etc.
- Ensure PIP meets minimum specifications for documentation and records required by ADESH-QAP-001, *ADESH Quality Assurance Plan*.
- Conduct periodic reviews of records and documentation for accuracy, applicability, and compliance.

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 8 of 35
	Revision: 1	Effective Date: 10/20/2021

- Provide oversight and ensure that monitoring requirements are followed in accordance with the MSGP Program.
- Ensure that all required compliance documents are submitted to EPA in accordance with the MSGP.
- Recommend to Group Leader contracting items and services.
- Assist the Group Leader in planning and implementing management assessments and MOVs.
- Identify issues, concerns, or problems that warrant management assessment.
- Oversee resolution and correction of all problems found during management assessments.

#### **4.1.2.3 MSGP Program Lead**

- Perform MSGP Program related activities as assigned by the Storm Water Permitting/Compliance Team Leader.
- Engage other team members to support implementation of the MSGP Program.
- Support DEPs and permitted industrial facility owners with the implementation of corrective actions in a timely manner.
- Ensure analytical instruments used in the field are calibrated as per Institutional Procedure P330-2, *Control and Calibration of Measuring and Test Equipment (M&TE)*. Periodically review and update the calibration procedures to ensure permit requirements are met.
- Identify opportunities for process improvement, health and safety enhancement, environmental protection, or other improvements of the program's operations.
- Ensure deficiencies are reported to the Storm Water Permitting/Compliance Team Leader in a timely manner.
- Implement a monitoring program as required by the MSGP.
- Ensure DMRs are prepared and submitted as required by the MSGP Program.
- Review documents for accuracy and completeness to assure that the requirements of the MSGP are met.
- Oversee data quality assessments prior to submittal of monthly, quarterly, and annual DMRs.
- Ensure procedures for sample handling and control during sample preparation, retrieval and analysis are followed.
- Identify issues, concerns, or problems that warrant management assessment.
- Periodically evaluate corrective actions to determine if there are issues that need to be entered into the Issues Management Tool.



<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 9 of 35
	Revision: 1	Effective Date: 10/20/2021

- Oversee preparation, conduct quality review, and submit all required compliance documents (e.g., NOI/Notice of Termination (NOT), DMRs, Annual Reports, and correspondence) to EPA.
- Oversee preparation and conduct quality review of Stormwater Pollution Prevention Plans (SWPPP) coordinated with the responsible organization.

#### **4.1.2.4 Storm Water Tracking System/Discharge Monitoring Report Manager**

- Perform MSGP Program related activities as assigned by the Storm Water Permitting/Compliance Team Leader.
- Serve as database administrator for the Storm Water Tracking System (SWTS) and Discharge Monitoring Report modules in EIM.
- Maintain current MSGP station and monitoring requirement configuration content in SWTS.
- Ensure all results from sampling are returned and are eligible for reporting.
- Assist MSGP Program Lead in conducting data quality assurance review.
- Conduct data quality assessments prior to submittal of monthly, quarterly, and annual DMRs.
- Ensure compliance reports (NOI/NOT, DMRs, and Annual Reports) are prepared as required by the MSGP.
- Prepare stormwater DMRs for the MSGP Program.

#### **4.1.2.5 MSGP Personnel**

- Perform MSGP Program related activities as assigned by the Storm Water Permitting & Compliance Team Leader.
- Implement approved processes and procedures for any equipment and instrumentation used to collect field data (i.e., visual assessment parameters, temperature, and pH).
- Mentor and train new personnel, as needed.
- Conduct sampling activities in accordance with approved processes and procedures.
- Perform sample handling and control during sample preparation, retrieval, and analysis in accordance with approved processes and procedures.
- Notify the MSGP Program Lead immediately upon discovery of field parameter(s) (visual assessment parameters, temperature, and/or pH) exceedances.
- Conduct QA check of methods/equipment.
- Procure sampling equipment (i.e., bottles, standards, preservatives) in accordance with P840-1, *Quality Assurance for Procurements*. Order materials and supplies in accordance with LANL protocol.

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 10 of 35
	Revision: 1	Effective Date: 10/20/2021

#### **4.1.2.6 EIM Database Administrator**

- Coordinate with the Subcontract Technical Representative (STR) to ensure that formal contracts are in place to support MSGP Program compliance activities.
- Coordinate with the STR to oversee contract analytical laboratories and ensure they follow the DOE Analytical Services Program.
- Coordinate with the STR to ensure that the off-site laboratory participates in the DOE Consolidated Audit Program and that the analytical laboratory has been audited on an annual basis.
- Administer and maintain the database.
- Provide role-related database access.
- Maintain facility and personnel configuration content, permit-defined lists of limited values (LLVs), and e-mail notification distribution lists.
- Ship/transport samples to the correct off-site analytical laboratory for analysis.
- Administer and maintain sampling plans and sample documentation.
- Load analytical data into the EIM database and run auto-validation checks.
- Manage analytical laboratory data packages.

#### **4.1.2.7 Corrective Action Reporting Database Administrator**

- Administer and maintain the database.
- Provide role-related database access.
- Maintain facility and personnel configuration content, permit-defined LLVs, and e-mail notification distribution lists.

#### **4.1.2.8 Maintenance Connection Database Administrator**

- Administer and maintain the database.
- Provide role-related database access.
- Maintain facility and personnel configuration content.
- Extract data to support preparation of the MSGP Annual Report.

### **4.1.3 Internal Interfaces**

#### **4.1.3.1 Facility Operations Directors**

The FOD provides organizational leadership to ensure that all facility and programmatic activities under their authority are performed in compliance with the MSGP. The FOD is also responsible for

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 11 of 35
	Revision: 1	Effective Date: 10/20/2021

establishing an environmental compliance envelope. It is the FOD's responsibility to maintain trained and qualified DEPs and Waste Management Coordinators on staff under their authority.

#### **4.1.3.2 Permitted Industrial Activity Facility Owner/Operator**

The permitted industrial activity facility owner/operator is the organization or individual(s) designated by management to oversee the day-to-day operation and maintenance of each regulated facility and its associated stormwater control measures (SCMs) and outfalls. The designated owner/operator may be the FOD, Facility Operations Manager, Maintenance Manager, or Group Leader responsible for the buildings, facilities, and areas where the SCMs and outfalls are located. The MSGP Program interfaces with the owners/operators to assist in determining appropriate maintenance, corrective actions, inspections, site walks, and monitoring.

#### **4.1.3.3 Deployed Environmental Professional**

DEPs are embedded within FODs as assigned by the Deployed Environment Professionals Team Leader. DEPs provide daily environmental oversight, guidance, and support to the FOD and each designated permitted industrial activity facility owner/operator. The MSGP Program interfaces with DEPs regularly to coordinate outfall surveys, inspections, site walks, and monitoring. The DEPs perform the following MSGP activities.

- Act as a liaison between the permitted industrial activity operating facilities, the FOD, and EPC-CP.
- Write and update the facility-specific MSGP SWPPP.
- Conduct Routine Facility Inspections.
- Document, update, and coordinate correction of identified conditions requiring corrective actions.
- Identify personnel within industrial operating facilities requiring training.
- Update MSGP facility-specific training and present the training annually.

#### **4.1.3.4 Sample Management Office (SMO)**

The EPC-CP SMO is the central point for all analytical laboratory selection, evaluations, sample submittals, and data returns. The SMO performs the following activities.

- Evaluates potential analytical laboratories, prepares analytical statements of work that include requirements, and arrange contracts with selected laboratories for analysis of all samples.
- Accepts samples from sample collection personnel, prepares the sample for shipment, ships the samples to the off-site analytical laboratories, and receives the data packages from the laboratories.
- Analytical data is received from analytical laboratories in electronic format and uploaded into a database. Received data is checked for completeness and adherence to contract

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 12 of 35
	Revision: 1	Effective Date: 10/20/2021

requirements. After uploading, data undergoes verification and validation for evidence of laboratory contamination, improper analytical method, and other analytical issues, which could potentially affect data quality.

- Field data collected by sample collection personnel is verified and entered into EIM by SMO personnel when sample collection personnel deliver samples to the SMO.
- If significant verification and validation issues are identified, results are forwarded to, and discussed with, the responsible program lead.
- Data issues that result from procedural failures, personnel errors, or other failures to follow requirements are documented and corrected according to P322-4, *Issues Management*.

#### **4.1.4 External Interfaces**

##### **4.1.4.1 Environmental Protection Agency**

EPA Region 6 authorizes coverage under the MSGP in the State of New Mexico. The MSGP Program interfaces with the EPA, as needed, to submit public comment on draft permits, submit permit required reports, plans and other documentation, and to ensure compliance with the NPDES MSGP.

##### **4.1.4.2 New Mexico Environmental Department**

The New Mexico Environmental Department (NMED) Surface Water Quality Bureau assists the EPA with compliance evaluations, monitoring and Section 401, Clean Water Act certification through a joint federal and state agreement. Section 401 requires all federally issued permits to be certified by the state in which the discharge occurs and requires effluent limitations, other limitations and monitoring requirements set forth in the permit adhere to state water quality standards. The MSGP Program interfaces with the NMED as needed to ensure compliance with the Permit.

##### **4.1.4.3 National Nuclear Safety Administration/Los Alamos Field Office**

The National Nuclear Safety Administration (NNSA)/Los Alamos Field Office is the LANL facility owner and is responsible for providing oversight of LANL operations. It is the responsibility of the Los Alamos Field Office to ensure that LANL operates in compliance with all state and federal regulations. The MSGP Program interfaces with the Los Alamos Field Office as needed to ensure compliance with the Permit.

##### **4.1.4.4 Analytical Laboratory Contractors**

An independent off-site analytical laboratory performs analytical services for the MSGP Program. The analytical laboratory is required to participate in the DOE Consolidated Audit Program, maintain positive control of samples, perform analyses for samples received, and report sample results as specified in statements of work and internal procedures. The STR and SMO personnel interface with the off-site analytical laboratory. Interface between MSGP Program personnel and the analytical laboratory is conducted with STR and SMO oversight, as needed, to ensure that samples are handled correctly and that analytical results are received per the contract requirements.

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 13 of 35
	Revision: 1	Effective Date: 10/20/2021

## 4.2 Criterion 2 – Management/Personnel Training and Qualification

The Storm Water Permitting/Compliance Team Leader shall determine skills, knowledge, and abilities required to perform MSGP Program work. Program personnel will be qualified and trained in accordance with P781-1, *Conduct of Training*. The Storm Water Permitting/Compliance Team Leader assigns minimum training requirements using a training plan. The Triad Human Resources Division maintains documentation of education qualification. Table 4.2 provides a summary of training and qualification requirements for MSGP Program personnel.

<b>Table 4.2 Management/Personnel Training and Qualification</b>		
<b>Key Personnel/Role</b>	<b>Qualification Standard</b>	<b>Program Specific Training</b>
Storm Water Permitting/Compliance Team Leader	<ul style="list-style-type: none"> <li>EPC-CP Manager Qualification Standard</li> <li>EPC-CP Group Qualification Standard</li> <li>EPC-CP-QS-2005, Stormwater Inspector Qualification Standard</li> <li>EPC-CP-QS-2006, Stormwater Pollution Prevention Plan Preparer Qualification Standard</li> <li>EPC-CP-QS-2007, Stormwater Design Reviewer Qualification Standard</li> </ul>	EPC-CP-PIP-2101
MSGP Program Lead, MSGP Personnel	<ul style="list-style-type: none"> <li>EPC-CP Group Qualification Standard</li> <li>EPC-CP-QS-2005, Stormwater Inspector Qualification Standard</li> <li>EPC-CP-QS-2006, Stormwater Pollution Prevention Plan Preparer Qualification Standard</li> <li>EPC-CP-QS-2007, Stormwater Design Reviewer Qualification Standard*</li> </ul>	
Discharge Monitoring Report Manager	<ul style="list-style-type: none"> <li>EPC-CP Group Qualification Standard</li> </ul>	
Database Administrator	<ul style="list-style-type: none"> <li>EPC-CP Group Qualification Standard</li> </ul>	*
* As required by job duties.		

## 4.3 Criterion 3 – Management/Quality Improvement

The MSGP Program adheres to the EPC-CP-QAP-001 principles of problem prevention and continuous improvement. The MSGP Program Lead will evaluate improvement opportunities identified by trending and reporting.

### 4.3.1 Performance Reporting

Personnel involved in activities associated with the MSGP Program are encouraged to provide periodic updates, either verbal or written, to the MSGP Program Lead. The program uses these updates to determine areas that require attention and corrective actions.

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 14 of 35
	Revision: 1	Effective Date: 10/20/2021

#### **4.3.2 Corrective Actions**

Corrective actions for all EPC-CP programs and projects are initiated, tracked, corrected, and documented according to P330-6, *Nonconformance Control and Reporting*, P322-4, *Issues Management*, ADESH-QAP-001, *ADESH Quality Assurance Plan*, and Group procedures. A condition requiring corrective action that meets any of the following criteria is entered into the Issues Management Tool and will be screened as high, medium, or low.

- Corrective action was not completed by the expected completion date.
- A schedule is sent to the EPA Region 6 requesting an extension of the 45-day or 90-day timeframe to complete a corrective action and corrective action was not completed by the required completion date provided in the letter or as approved by EPA.
- All benchmark Additional Implementation Measure (AIM) level 2 or 3 exceedances.
- Repeat corrective actions or trends identified by EPC-CP personnel.
- Conditions requiring immediate action, where failure to take action would result in pollutants being released to a water body of the State or an immediate non-compliance with the MSGP.
- Violations identified by the regulatory authority.
- Other issues as deemed necessary by EPC-CP personnel.

#### **4.4 Criterion 4 – Management/Documents and Records**

##### **4.4.1 Document Control**

Procedures, permits, NOIs, NOTs, reports, and quality affecting correspondence are controlled by the organization's document control system (ESH-AP-007, *Document Control*). As a Best Management Practice (BMP), EPC-CP keeps an approved hard copy of the MSGP as well as all of the reapplication materials associated with the permit.

Controlled copies of EPC documents are located on the Internet:

- [Electronic Document and Records Management System](#)

Phone calls or emails are documented and controlled if the content provides direction or results in clarification of permit requirements or decisions.

##### **4.4.2 Procedures**

Procedures that implement the work scope identified in this PIP are developed and controlled, as needed, in accordance with ADESH-QAP-001, *ADESH Quality Assurance Plan*, ESH-AP-007, *Document Control*, and EPC-CP-QP-0901, *EPC-CP Quality Procedure to Supplement ESH-AP-007, Document Control*.



<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 15 of 35
	Revision: 1	Effective Date: 10/20/2021

#### **4.4.3 Electronic Media**

The MSGP utilizes electronic means, as necessary, to maintain data. Databases used to hold data and generate reports used in demonstrating compliance are maintained on a common drive of a server or on a cloud-based platform. These databases are backed-up daily to minimize potential loss of data. The database administrator(s) control access to these databases, allowing only trained authorized personnel access to the databases.

EIM (<https://www.locusfocus.com/eim/eim.cfm>) is a cloud-based database information system designed in part to support the information management needs of the Laboratory's MSGP. MSGP support includes analytical data management, stormwater discharge monitoring reporting, Geographic Information System (GIS) development, and other information management activities as needed.

Maintenance Connection

([https://www.maintenanceconnection.com/mcv18/online/mc\\_login\\_form.asp](https://www.maintenanceconnection.com/mcv18/online/mc_login_form.asp)) is a cloud-based computerized maintenance management system, or CMMS, used to manage MSGP field activities such as monitoring station installation and removal, inspections, maintenance, sample collection and retrieval, visual inspections, and information management change controls for data stored in Maintenance Connection and in the SWTS Module in EIM.

The MSGP Corrective Action Report (MSGP CAR) database (<https://epc.lanl.gov>) is a Laboratory-managed Oracle APEX database and associated administration module that tracks corrective action data.

#### **4.4.4 Records Management**

Records are maintained and available for auditing in accordance with ESH-AP-006, *Records Management Plan*. The Storm Water Permitting/Compliance Team generates and retains records to ensure compliance with monitoring and recordkeeping requirements as specified by the Laboratory, DOE, and the EPA. Records kept by the MSGP Program include the following:

- Copy of the MSGP
- Annual Reports
- Discharge Monitoring Reports
- Corrective Action Reports
- NOIs and NOTs
- Reports and certifications required by the MSGP
- Data used for compliance purposes
- Inspection forms
- Logbook entries and/or field forms to document inspection and monitoring activity
- Equipment and instrument calibration and maintenance records

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 16 of 35
	Revision: 1	Effective Date: 10/20/2021

- QA documents
- General correspondence that affects the program (e.g., phone calls, emails, and log entries that provide directions or results in decisions)
- Applicable IWDs
- General MSGP compliance documents (correspondence with regulators and stakeholders, notice of change conditions, etc.)

Analytical data packages are stored in EDRMS and are available for public viewing on the Intellus New Mexico website.

The DEPs, assigned to the FOD in which a permitted industrial activity facility resides, keep the following records within the facility-specific Stormwater Pollution Prevention Plan.

- Reports and certifications required by the MSGP
- Routine Facility Inspection forms
- Visual Assessment forms
- Corrective Action Reports
- Discharge Monitoring Reports
- Annual Reports

All monitoring data is collected in accordance with the requirements specified in the MSGP. Triad submits monitoring results to EPA within 60 days of the end of the monitoring period, or in the case of no discharge (NODI) DMRs, within 30 days of the end of the monitoring period. The NOI or change NOIs, Annual Reports and DMRs are submitted electronically in accordance with the MSGP. These documents are submitted via EPA's electronic reporting site called the [Central Data Exchange](#) (CDX) website, unless the permit states otherwise or unless a waiver has been granted.

Triad keeps copies of the following documentation for a period of at least 3 years from the date its coverage under the MSGP expires or is terminated.

- SWPPP (including any modifications made during the term of the MSGP)
- Additional documentation requirements as identified in Section 6.5 of the MSGP
- All reports and certifications required by the MSGP
- Monitoring data
- Records of all information used to complete the NOI.

#### **4.5 Criterion 5 – Performance/Work Processes**

Work that contributes to achieving the quality specifications of the MSGP deliverables, is planned and documented, as described in this document and implementing procedures.

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 17 of 35
	Revision: 1	Effective Date: 10/20/2021

Work is performed according to applicable plans and implementing procedures. The Program Lead provides first line supervision of personnel assigned to program tasks to ensure work is performed to achieve program quality specifications. Before changing a work process that affects the program quality specifications, the Program Lead ensures the same level of planning and review as used in the initial program planning steps.

#### **4.5.1 Work Processes**

All work should be regarded as a process. Each process consists of a series of actions and is planned and carried out by qualified workers using specified work processes and equipment under administrative, technical, and environmental controls established by management to achieve an end result. Workers are the best resource to contribute ideas for improving work processes and are involved in work process design, process evaluation, and providing the feedback necessary for improvement.

Work is planned and performed using the principles of Integrated Safety Management and is in compliance with P300, *Integrated Work Management for Work Activities*.

#### **4.5.2 Stormwater Pollution Prevention Plans**

SWPPP development and implementation by the permitted industrial activity facility is required for MSGP compliance (refer to Sections 6.0 and 8.0 of the MSGP for general SWPPP requirements and Sector-Specific Requirements for Industrial Activity, and Attachment 2, *MSGP Facilities Associated with Industrial Activity*). The SWPPP is intended to document the selection, design, and installation of SCMs. Additional documentation requirements are intended to document the implementation (including inspection, maintenance, monitoring, and corrective action) requirements identified in the MSGP. The SWPPP is a written assessment of potential sources of pollutants in stormwater runoff and it identifies SCMs implemented at the specific permitted industrial activity facility to minimize the discharge of pollutants in runoff from the site. These SCMs include site-specific stormwater controls, inspections, employee training, and reporting. The plans and procedures detailed in the SWPPP are implemented by the facility and updated as necessary, with a copy of the SWPPP kept on-site.

The SWPPP development process involves evaluating regulated industrial activities and requires FOD and Operational support for implementation, improvement, and revision of the plans. EPC-CP personnel follow guidance in EPC Division and Group documents including the most current revision of EPC-CP-QP-2110, *MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance*.

#### **4.5.3 Inspections**

The MSGP requires periodic inspection of industrial processes and maintenance of SCMs to ensure their effectiveness. Triad has implemented a routine inspection process (e.g., monthly or quarterly) of industrial activity facilities permitted under the MSGP to support this determination. For information about how to perform a Routine Facility Inspection and how to complete the associated form, refer to the most current revision of EPC-CP-QP-2108, *MSGP Routine Facility Inspections*.

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 18 of 35
	Revision: 1	Effective Date: 10/20/2021

Visual assessments are also required by the MSGP as an important tool for collecting information to determine the effectiveness of controls in preventing potential contaminants from migrating off Laboratory property. Accordingly, field personnel conduct visual assessments for stormwater collected at the monitoring stations or discharged through substantially identical outfalls associated with permitted industrial activity facilities located throughout the Laboratory. Information recorded documents all observations that are required by the MSGP. For information about how to perform a Visual Assessment and how to complete the associated form, refer to the most current revision of EPC-CP-QP-2105, *MSGP Stormwater Visual Assessments*.

#### **4.5.4 Stormwater Corrective Actions**

It is critical that Triad be able to effectively inspect and maintain the SCMs that have been installed at various locations. Quarterly inspections are completed and provided to the Program Lead for inclusion into the records system. In addition, the Program Lead accompanies the DEPs on the last Routine Facility Inspection of the year. All identified conditions requiring corrective action are summarized in an Annual Report submitted EPA each year. Triad management has made an investment in time and materials, in addition to a commitment to minimize potential migration of pollutants in stormwater. Report findings are evaluated, and in conjunction with facility personnel, SCMs are modified, installed, or removed as necessary. EPC-CP personnel follow guidance in EPC Division and Group level documents including EPC-CP-QP-2109, *MSGP Corrective Actions*.

##### **4.5.4.1 Responding to Water Quality Exceedances**

Federal stormwater regulations implemented under the Laboratory's MSGP require corrective action to be taken if exceedances of water quality standards or MSGP numeric effluent limits are identified. The identification of a pollutant source(s) contributing to a water quality exceedance is addressed through the creation of a condition requiring corrective action that is entered into the MSGP CAR database in accordance with EPC-CP-QP-2109, *MSGP Corrective Actions*. Corrective actions are typically accomplished by modifying, as appropriate, existing SCMs and SWPPPs or installing new SCMs.

When a water quality exceedance occurs, the MSGP EIM Database Administrator assures the analytical data is reviewed and submitted on the required DMR. The Program Lead enters the exceedance as a condition requiring corrective action in the MSGP CAR database. DEPs, and other SWPPP team members then investigate the occurrence, implement corrective action and document all corrective actions taken.

When an exceedance of the MSGP benchmark parameters is detected, the same process is followed as identified for a water quality exceedance above.

#### **4.5.5 Stormwater Monitoring**

The MSGP requires stormwater monitoring to address three separate criteria: Quarterly Benchmark, Effluent Limitations, and Impaired Waters. Refer to Attachment 2, *MSGP Facilities Associated with Industrial Activity* for a list of Laboratory permitted facilities that have monitoring requirements. Stormwater monitoring is conducted by EPC-CP personnel in accordance with the MSGP, EPC-CP

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 19 of 35
	Revision: 1	Effective Date: 10/20/2021

procedures, and the current year MSGP Sampling and Analysis Plan. Considerations to be used for MSGP stormwater monitoring include, but may not be limited to, MSGP requirements, State water quality standards, and Administrative Authority requests.

Quarterly benchmark monitoring is used for determining the effectiveness of stormwater controls and, corrective actions for meeting the requirements of the MSGP. Four benchmark stormwater samples per year are required under the MSGP, but it is not necessary to collect them in consecutive quarters if climatic conditions preventing quarterly collection are documented (see *Adverse Weather Conditions* in Part 4.1.5 of the MSGP). Stormwater monitoring results are used to demonstrate compliance with water quality standards and to meet the requirement to evaluate results against benchmark parameter permit limits.

Annual Impaired Waters stormwater discharge monitoring of all pollutants for which a waterbody is impaired and for which a standard analytical method exists (see 40 CFR Part 136) is required. The canyons within and surrounding the Laboratory are declared as impaired waters by NMED. Impaired waters pollutants vary from canyon to canyon and are evaluated and published biannually by NMED in the Clean Water Act §303(d)/305(b) Integrated Report. The pollutants may be discontinued in subsequent annual monitoring if the concentration is below background levels in stormwater or if the constituent is not detected in year 1 or year 4 of the permit.

Effluent limitations monitoring is required annually where effluent limitation guidelines have been established for select regulated activities. Exceedance of an effluent limitation is a permit violation.

MSGP analytical methods applicable to LANL are consistent with the requirements of 40 CFR Part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants*.

Triad monitors for four quarters as follows for each calendar year.

- January 1-March 31
- April 1-June 30
- July 1-September 30
- October 1-December 31

Documentation of the rationale for no monitoring or inspections due to adverse weather conditions must be included in the facility specific SWPPP. Adverse weather conditions are those that are dangerous or create inaccessibility for personnel, such as local flooding, high winds, or electrical storms, or situations that otherwise make sampling impractical, such as drought or extended frozen conditions.

Compliance is tracked by performing inspections of samplers and other associated equipment, and inspecting SCMs. Adequate records are maintained to demonstrate the operating history of essential instrumentation and equipment.

Triad operates and maintains systems of monitoring, control, and related equipment that are installed or used to achieve compliance with the MSGP and the SWPPP. Backup instrumentation and equipment will be timely deployed in the event of equipment failure.

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 20 of 35
	Revision: 1	Effective Date: 10/20/2021

Instrument calibration is essential for documenting the quality of data obtained with the instrument. Technical work that depends upon the accuracy of data is performed using equipment for which the calibration status and limits of accuracy are known and controlled.

Field team personnel calibrate and perform maintenance procedures on all monitoring and analytical field instruments to ensure accuracy of measurements and maintain appropriate records of such activities. Calibrations are documented as prescribed by procedures or manufacturer's instructions.

Any person involved in the preparation, retrieval, and analysis will maintain positive control of samples at all times until sample disposal. Chain of custody responsibilities are provided in EPC-CP-QP-3020, *Sample Control and Field Documentation* and Table 4.5.5-1. EPC-CP personnel follow guidance in EPC Division documents including the most current revision of:

- EPC-CP-TP-2102, *Installing, Setting Up, and Operating ISCO Samplers*;
- EPC-CP-TP-2103, *Inspecting Stormwater Runoff Samplers and Retrieving Samples for the MSGP*;
- EPC-CP-QP-2104, *Installing, Inspecting, and Maintaining MSGP Single Stage Samplers*; and
- EPC-CP-QP-2106, *Processing MSGP Stormwater Samples*.

**Table 4.5.5-1 Chain of Custody**

<b>Activity</b>	<b>Responsibility</b>
Sample collection and preparation	All persons (other than analytical personnel) performing sample preparation and collection are trained to sample collection procedures and adhere to the chain of custody requirements therein.
Analysis	Analytical laboratories performing sample analysis maintain sufficient procedures to ensure positive control of samples as specified in the existing Statement of Work.
Storage/Disposal	Analytical laboratories maintain/retained samples and/or sample portions under chain of custody until reanalysis, or ultimate disposal.

The EPC-CP SMO is the central point of contact for analytical laboratory selection, evaluations, sample submittal, and data return. See Section 4.1.3.4 for SMO roles and responsibilities.

#### **4.5.5.1 Quality Control Samples**

The planning and coordination of each sampling event and/or monitoring period may include the following quality control (QC) samples to detect potential sources of sample contamination or to track analytical laboratory performance:



<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 21 of 35
	Revision: 1	Effective Date: 10/20/2021

- **Equipment Rinsate Blank:** A sample of analyte-free water that is prepared in the field using the appropriate sampling equipment with an aliquot of deionized (DI) or certified contaminant-free water that is processed using applicable field equipment in the same manner as the samples.
- **Field Duplicates:** Two samples taken from and representative of the same population and carried through all steps of the sampling and analytical procedures in an identical manner. Duplicate samples are used to assess variance of the total method including sampling and analysis.
- **Trip Blank:** Samples of analyte-free water that are prepared in the laboratory using DI or certified contaminant-free water and preserved as required. Trip blanks are used for volatile organic compound (VOC) samples only. Trip blanks are transported, unopened, to the field with other sample containers, handled like environmental samples and shipped to the analytical laboratory for analysis with the collected samples. VOC samples are not a requirement of the MSGP.
- **Field Blank:** A sample of analyte-free water that is prepared in the field using a clean sample container.

The MSGP Program Lead shall consider and include, at a minimum, the collection of QC samples at the frequencies identified in Table 4.5.5.1-1.

<b>Table 4.5.5.1-1 Quality Control Sampling Requirements</b>		
<b>Sample Type</b>	<b>Analysis</b>	<b>Frequency</b>
Field Blank and/or Field Duplicate	Includes all analytical groups	10% of samples or a minimum of one per calendar year.

All QC samples shall be collected in accordance with procedures provided in EPC-CP-QP-3027, *Sample Containers, Preservation, and Field Quality Control*.

## **4.5.6 Reporting**

### **4.5.6.1 Discharge Monitoring Reports**

DMRs are prepared in accordance with the most recent version of the procedure for generating DMRs using the DMR module in EIM. The DMR module is used to prepare the DMR in two formats: a paper form (EPA Form 3320-1) which may be printed as a hard copy or saved as a PDF, and an electronic comma-separated value file for import into the NetDMR electronic reporting system. The Laboratory is required to submit DMRs to EPA electronically using the NetDMR system and to keep a printed copy with the facility-specific SWPPP.

DMRs are due in the NetDMR system no later than 60 days following each monitoring period. NetDMR is accessed via EPA's CDX website (<https://cdx.epa.gov/>). The DMR manager may import DMRs into NetDMR; however, only a designated EPC Signatory Official or Authorized Representative

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 22 of 35
	Revision: 1	Effective Date: 10/20/2021

may submit the DMRs for NPDES Permits. NetDMR roles and permissions for these functions are described on the NetDMR Support Portal ( <https://netdmr.zendesk.com/>).

#### **4.5.6.2 Annual Reports**

The Laboratory is required to submit an annual report electronically to the EPA by January 30<sup>th</sup> for each year of permit coverage that includes a summary of the findings from inspections and corrective action documentation. The documentation includes the following:

- Information relative to whether a waiver was granted, by whom, and the date the waiver was approved;
- The NPDES Permit Tracking Number;
- A summary of the past year's routine facility inspection documentation (see Part 3.1.6 of the MSGP);
- A summary of your past years quarterly visual assessment documentation (see Part 3.2.3 of the MSGP);
- A summary of the corrective action and/or AIM documentation over the past year (see Parts 5.1.3 and 5.3 of the MSGP); and

The annual report is submitted electronically via the NetMSGP program service on EPA's CDX website. The annual report may be submitted on a paper form (EPA Form 6100-28) if the Laboratory has been granted a waiver from electronic reporting by the applicable EPA Regional Office.

#### **4.6 Criterion 6 – Performance/Design**

Design activities are conducted and reviewed in accordance with:

- PD340, *Conduct of Engineering and Configuration Management for Facility Work*;
- P341, *Facility Engineering Processes Manual* and;
- P342, *Engineering Standards*.

Design standards under this program include, but are not limited to temporary and permanent SCMs, conditions requiring corrective action, and stormwater monitoring support.

Design inputs are specified and approved on a timely basis for making design decisions. Inputs contain the level of detail required to permit the performance of design activities correctly.

Formal design reviews, including design verifications and evaluation of design changes, are conducted to ensure that the design input is correctly incorporated into the design output. Changes to design will undergo the same review as the original design. A Professional Engineer must stamp engineered designs.

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 23 of 35
	Revision: 1	Effective Date: 10/20/2021

Verification and validation of the adequacy of designs are conducted before relying on the performance of the design function. Verification and validation are conducted in accordance with implementing procedures.

#### **4.7 Criterion 7 – Performance/Procurement**

Items and services required to perform the scope for the MSGP Program are commercial grade in nature and no special procurement requirements or needs are necessary. All procurements of equipment, supplies, and/or services are made in accordance with P840-1, *Quality Assurance for Procurements*.

#### **4.8 Criterion 8 – Performance/Inspection and Acceptance Testing**

Materials and services used in this program will be inspected and/or tested prior to acceptance in accordance with P330-8, *Inspection and Test* as applicable. Most supplies used during performance of program activities are commercial grade in nature and require no special acceptance practices or procedures.

#### **4.9 Criterion 9 – Assessment/Management Assessment**

The EPC-CP Group Leader conducts management assessments and/or MOV assessments of the MSGP Program in accordance with P328-3, *Management Assessment* and P328-4, *Management Observation and Verification*. Assessments are documented and filed as records in accordance with ESH-AP-006, *Records Management Procedure*. Violations of requirements and/or findings from management assessments and/or MOVs initiate a nonconformance report in accordance with P330-6 *Nonconformance Control and Reporting*. Corrective actions to resolve the nonconforming services or processes are tracked and documented in accordance with P322-4, *Issues Management*.

#### **4.10 Criterion 10 – Assessment/Independent Assessment**

Independent assessments are those assessments conducted by organizations external to EPC-CP. As required by the SD330, *Los Alamos National Laboratory Quality Assurance Program*, this program may be assessed by outside organizations in accordance with P328-2, *Independent Assessment*.

Annual audits/assessments will be conducted, with input from the Storm Water Permitting/Compliance Team Leader identifying one or more areas of the program to be audited each year. If a violation of requirements is found during an independent audit/assessment, a nonconformance report is initiated in accordance with P330-6, *Nonconformance Control and Reporting*. Corrective actions are tracked and documented in accordance with P322-4, *Issues Management*.

#### **4.11 Suspect/Counterfeit Items Prevention**

Suspect/Counterfeit items (S/CI) are prevented from being purchased by Triad at LANL. Potential S/CI are prevented, detected, reported and investigated in accordance with the procedures defined in the LANL procedure P330-9, *Suspect/Counterfeit Items (S/CI)*.

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 24 of 35
	Revision: 1	Effective Date: 10/20/2021

#### 4.12 Safety Software Quality Assurance Requirements for Nuclear Facilities

This section is only applicable for nuclear facilities in accordance with DOE Order 414.1D, Chg.2, Attachment 1 *Contractor Requirements Document* (CRD), Section 1.b. As such, this section is not applicable to the NPDES MSGP Program.

### 5.0 IMPLEMENTATION

The requirements of this document are effective on the date provided on the cover page.

### 6.0 TRAINING

Training for EPC-CP MSGP employees, DEPs, and subcontractors are assigned and tracked using UTrain, the institutional training management system. The required training associated with this document is as follows.

- Self-study of this procedure (required reading) is required for all MSGP Program employees, including subcontractors, and some DEPs depending on their assigned job duties.

### 7.0 DOCUMENTS AND RECORDS

The Environment, Safety, Health, Quality, Safeguards, and Security-Document Control and Records Management is the Office of Record for this document and maintains the administrative record. Documents and records are maintained in accordance with PD1020, *Document Control and Records Management*; ESH-AP-007, *Document Control*; P1020-1, *Laboratory Records Management*, and ESH-AP-006, *Records Management Procedure*.

### 8.0 DEFINITIONS AND ACRONYMS

Use the LANL *Definition of Terms* and those in SD330.

Use the LANL *Acronym Master List*.

BMP	Best Management Practice
CDX	Central Data Exchange
CFR	Code of Federal Regulations
CRD	Contractor Requirements Document
DEP	Deployed Environmental Professional
DI	Deionized
DMR	Discharge Monitoring Report
DOE	Department of Energy
EIM	Environmental Information Management
EPA	Environmental Protection Agency
EPC-CP	Environmental Protection and Compliance-Compliance Programs
FOD	Facility Operations Director
LANL	Los Alamos National Laboratory

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 25 of 35
	Revision: 1	Effective Date: 10/20/2021

LLV	List of Limited Value
MOV	Management Observation and Verification
MSGP	Multi-Sector General Program
NeT	NPDES eReporting Tool
NMED	New Mexico Environmental Department
NNSA	National Nuclear Safety Administration
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
PIP	Program Implementation Plan
QA	Quality Assurance
S/CI	Suspect/Counterfeit Items
SCM	Stormwater Control Measure
SMO	Sample Management Office
STR	Subcontract Technical Representative
SWPPP	Stormwater Pollution Prevention Plan
SWTS	Storm Water Tracking System Module
VOC	Volatile organic compound

## 9.0 REFERENCES

The latest document revision, available through Triad's Electronic Document and Records Management System, shall be used unless otherwise specified.

Prime Contract

DOE Order 414.1D, Chg. 2, *Quality Assurance*

NPDES MSGP

40 CFR Part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants*

Clean Water Act, Title 33 U.S.C. 1251

20.6 Part 4 NMAC, *Standards for Interstate Surface Waters*

### **LANL Documents:**

SD330, *Los Alamos National Laboratory Quality Assurance Program*

P101-17, *Excavation/Fill/Soil Disturbance*

P300, *Integrated Work Management*

P322-4, *Issues Management*

P328-2, *Independent Assessment*

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 26 of 35
	Revision: 1	Effective Date: 10/20/2021

*P328-3, Management Assessment*

*P328-4, Management Observation and Verification*

*P330-2, Control and Calibration of Measuring and Test Equipment (M&TE)*

*P330-6, Nonconformance Control and Reporting*

*P330-8, Inspection and Test*

*P330-9, Suspect/Counterfeit Items (S/CI)*

*P340, Conduct of Engineering and Configuration Management for Facility Work*

*P341, Facility Engineering Processes Manual*

*P342, Engineering Standards*

*EPC-ES-FSD-001, Implementing Environmental Requirements*

*EPC-CP-FSD-001, Water Quality*

*P781-1 Conduct of Training*

*P840-1, Quality Assurance for Procurements*

*P1040, Software Quality Management*

*PD1020, Document Control and Records Management*

*P1020-1, Laboratory Records Management*

**EPC Documents:**

*ESH-AP-006, Records Management Procedure*

*ESH-AP-007, Document Control*

*ADESH-QAP-001, ADESH Quality Assurance Plan*

*EPC-DO-QP-100, General Field Safety*

*EPC-CP-QAP-001, Environmental Compliance Programs Quality Assurance Plan*

*EPC-CP-QP-0901, EPC-CP Quality Procedure to Supplement ESH-AP-007, Document Control*

*EPC-DO-TP-120, Project Review Process*

*EPC-CP-QP-2109, MSGP Corrective Actions*

*EPC-CP-QP-2104, Installing, Inspecting, and Maintaining MSGP Single Stage Samplers*

*EPC-CP-QP-2105, MSGP Stormwater Visual Assessments*

*EPC-CP-QP-2106, Processing MSGP Stormwater Samples*

*EPC-CP-QP-2107, Preparing Discharge Monitoring Reports for the NPDES Multi-Sector General Permit*

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 27 of 35
	Revision: 1	Effective Date: 10/20/2021

EPC-CP-QP-2108, *MSGP Routine Facility Inspections*

EPC-CP-QP-2110, *MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance*

EPC-CP-TP-2102, *Installing, Setting Up, and Operating ISCO Samplers*

EPC-CP-TP-2103, *Inspecting Stormwater Runoff Samplers and Retrieving Samples for the MSGP*

## **10.0 APPENDICIES**

Appendix A: NPDES Multi-Sector General Permit Program Management Level Determination, MLDS-TA-60-324 Rev. 0

## **11.0 ATTACHMENTS**

Attachment 1: Summary of QA Requirements and Program-Level (Local) Work Practices

Attachment 2: MSGP Facilities Associated with Industrial Activity

## **12.0 CONTACT INFORMATION**

Entity: EPC-CP Storm Water Permitting/Compliance Team Leader

Name: Terrill W. Lemke

Telephone: (505) 665-2397

E-mail: [tlemke@lanl.gov](mailto:tlemke@lanl.gov)

Website: <https://int.lanl.gov/org/ddops/aldehyqss/environmental-waste-programs/compliance-programs/index.shtml>



<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 28 of 35
	Revision: 1	Effective Date: 10/20/2021

**Appendix A: NPDES Multi-Sector General Permit Program Management Level Determination,  
MLDS-TA-60-324 Rev. 0**

(Page 1 of 4)




**Multi-Sector Conduct of Engineering  
NPDES Construction General Permit Program  
Management Level Determination**

MLDS No.: MLDS-TA-60-324

Rev.: 0

Page 1 of

<b>1.0 SYSTEM INFORMATION</b>		
1.1 TA No.: All	1.2 Facility No.: All	1.3 Facility Name: All LANL
1.4 Facility Hazard Category:		
<input type="checkbox"/> Nuclear Facility <input checked="" type="checkbox"/> Nonnuclear Facility		
<input type="checkbox"/> HC-2 <input type="checkbox"/> HC-3 <input type="checkbox"/> Less than HC-3	<input type="checkbox"/> Chemical High-PSM <input type="checkbox"/> Chemical High-non-PSM <input type="checkbox"/> Chemical Moderate <input checked="" type="checkbox"/> Chemical Low	<input type="checkbox"/> Accelerator <input type="checkbox"/> Firing Range <input type="checkbox"/> Biological <input type="checkbox"/> Explosive
1.5 Operating System ID: WSTWTR		1.6 Operating System Name: Waste Water
1.7 System ID: STW		1.8 System Name: Storm Water – Multi-Sector General Permit Program

<b>2.0 SECURITY CLASSIFICATION REVIEW</b>	
2.1 Security Classification: Unclassified	
2.2 DC/RO: (Name, Z Number, Organization, Signature, Date)	
Tania Van Valkenburg, 145666, EPC-CP  12/16/19	

<b>3.0 SYSTEM MANAGEMENT LEVEL DETERMINATION ANALYSIS</b>		
3.1 Does this system meet one of the criteria below? If "Yes", then check the applicable criteria, insert the safety function(s) and safety analysis reference(s), and go to Section 4.0 and designate the system as ML-1. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
<ul style="list-style-type: none"> <li>The system is an SSC of a Hazard Category 2 or 3 Nuclear Facility that performs Documented Safety Analysis (DSA) designated Safety Class (SC) function(s). <input type="checkbox"/></li> <li>The system is an SSC of an Accelerator Facility that performs Safety Assessment Document (SAD) designated public protection function(s). <input type="checkbox"/></li> <li>The system is an SSC of a High Hazard Nonnuclear Facility that performs function(s) identified in the Facility Safety Analysis (FSA) for protection of the public. <input type="checkbox"/></li> </ul>		
If "No" is checked then go to Field 3.2		
No.	SC or public protection functions as defined by Safety Analysis	DSA, SAD, or FSA Reference
3.1-1	N/A	N/A
3.1-2	N/A	N/A
3.1-3	N/A	N/A
3.2 Does this system meet one of the criteria below? If "Yes", then check the applicable criteria, insert the safety function(s) and safety analysis reference(s), and go to Section 4.0 and designate the system as ML-2. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		

**LANL**


Form No: AP-341-502-FM01, Rev. 6  
Form Effective Date: 02/07/18

ES-DO-20-032

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 29 of 35
	Revision: 1	Effective Date: 10/20/2021

**Appendix A: NPDES Multi-Sector General Permit Program Management Level Determination,  
MLDS-TA-60-324 Rev. 0 (cont.)**

(Page 2 of 4)



Los Alamos  
NATIONAL LABORATORY  
EST. 1944

*Multi-Sector*  
**NPDES Construction General Permit Program  
Management Level Determination**

**Conduct of Engineering**

MLDS No.: MLDS-TA-60-324      Rev.: 0      Page 2 of

- The system is an SSC of a Hazard Category 2 or 3 Nuclear Facility that performs DSA designated Safety Significant (SS) function(s). ☐
- The system is an SSC of an Accelerator Facility that performs SAD designated worker protection function(s). ☐
- The system is an SSC of a High Hazard Nonnuclear Facility that performs function(s) identified in the FSA for protection of the uninvolved or noninvolved worker. ☐

If "No" is checked then go to Field 3.3.

No.	SS functions or worker protection functions as defined by Safety Analysis	DSA, SAD, or FSA Reference
3.2-1	N/A	N/A
3.2-2	N/A	N/A
3.2-3	N/A	N/A

3.3 Does this system meet one of the criteria below? If "Yes", then check the applicable criteria, insert the function(s) and safety analysis or Facility Management reference(s), and go to Section 4.0 and designate the system as ML-3.      Yes ☐      No ☒


**LANL**

Form No: AP-341-502-FM01, Rev. 6  
Form Effective Date: 02/07/18

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 30 of 35
	Revision: 1	Effective Date: 10/20/2021

**Appendix A: NPDES Multi-Sector General Permit Program Management Level Determination, MLDS-TA-60-324 Rev. 0 (cont.)**

(Page 3 of 4)



**Los Alamos**  
NATIONAL LABORATORY  
EST 1943

*Multi-Sector*  
**NPDES Construction General Permit Program**  
*APR 11/20*  
**Management Level Determination**

MLDS No.: MLDS-TA-60-324      Rev.: 0      Page 3 of

- The system is an SSC of a Hazard Category 2 or 3 Nuclear Facility that is designated Other Hazard Control (OHC) in the DSA. ☐
- The system is an SSC that performs function(s) for protection of Category I or II Special Nuclear Material (SNM) or Classified Matter as determined by the Facility Management. ☐
- The system is an SSC of a Moderate Hazard Nonnuclear Facility that performs function(s) identified in the FSA for protection of uninvolved or noninvolved worker and the Facility Management requires enhanced engineering, quality, or maintenance support above national codes and standards requirements. ☐
- The system is an SSC that performs important function(s) for compliance with Waste Acceptance Criteria (WAC) for a Waste Receiving Site and as determined by the Facility Management. ☐
- The system is an SSC that performs function(s) for radiation protection that are not covered in the Radiation Protection Safety Management Program (SMP) and are considered important to normal, abnormal, or emergency response by the Facility Management ☐
- The system is an SSC that performs function(s) for environmental protection that are called out in a permit or used to demonstrate environmental compliance that are considered important by the Facility Management. *(See discussion below)* ☒
- The system is an SSC that performs function(s) that are essential to the facility mission as determined by the Facility Management. ☐

*Evaluation.* This MLDS is for the overall Multi-Sector General Permit (MSGP) Program at LANL, which is responsible for monitoring the storm water discharges at the outfalls to meet Water Quality Standards. The MSGP Program is responsible for the following:

- Determines inspection requirements, how often to conduct these inspections and what to monitor for;
- Evaluates sample results and compares those results to established effluent limits;
- Provides storm water discharge summary reports to the associated enforcement agencies at a predetermined reporting frequency;
- Works with the enforcement agencies to address identified issues.

In summary, this MLDS is associated with a program and not equipment. There is nothing in the program that would require it to be elevated to ML-3. While the program may rely on equipment to support permit requirements, the equipment (as applicable) should be evaluated separately from the program to determine the appropriate management level.

If "No" is checked then go to Field 3.4

No.	OHC Functions defined by Safety Analysis or other ML-3 functions as determined by Facility Management	DSA or Facility Management Reference
3.3-1	Obtain permit coverage (NOI) and modification	N/A
3.3-2	Permit implementation	N/A
3.3-3	Compliance inspections	N/A
3.3-4	Data management	N/A


**LANL**

Form No: AP-341-502-FM01, Rev. 6  
Form Effective Date: 02/07/18

NPDES Multi-Sector General Permit	No: EPC-CP-PIP-2101	Page 31 of 35
	Revision: 1	Effective Date: 10/20/2021

**Appendix A: NPDES Multi-Sector General Permit Program Management Level Determination, MLDS-TA-60-324 Rev. 0 (cont.)**

(Page 4 of 4)

	<b>Multi-Sector</b> <b>NPDES Construction General Permit Program</b> <b>Management Level Determination</b>	<b>Conduct of Engineering</b>
MLDS No.: MLDS-TA-60-324	Rev.: 0	Page 4 of

3.3-5	Reporting	N/A
3.4 If the System does not meet any of the criteria in fields 3.1, 3.2, or 3.3, then designate the system as ML-4 in Section 4.0.		

<b>4.0 SYSTEM MANAGEMENT LEVEL DESIGNATION</b>			
ML-1 <input type="checkbox"/>	ML-2 <input type="checkbox"/>	ML-3 <input type="checkbox"/>	ML-4 <input checked="" type="checkbox"/>

<b>5.0 APPROVALS</b>	
5.1 Responsible Engineer (Name, Z Number, Organization, Signature, and Date)	
Terrill Lemke, 120092, EPC-CP	<i>Terrill Lemke</i> 4/25/19
5.2 Verifier (Name, Z Number, Organization, Signature, and Date)	
Taunia Van Valkenburg, 145666, EPC-CP	<i>Taunia Van Valkenburg</i> 12/11/19
5.3 Facility Design Authority Representative (Name, Z Number, Organization, Signature, and Date)	
Jason Apperson, 222827, ES-DO	<i>Jason Apperson</i> 12/12/19

<b>6.0 REVISIONS</b>					
Rev. No.	Date	Description	RE	Verifier	FDAR
0		Original Issue			

**LANL**

Form No: AP-341-502-FM01, Rev. 6  
Form Effective Date: 02/07/18

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 32 of 35
	Revision: 1	Effective Date: 10/20/2021

### Attachment 1: Summary of QA Requirements and Program-Level (Local) Work Practices

Summary of QA Requirements and Program-Level (Local) Work Practices		
DOE Order 414.1D/SD 330 Requirements	LANL Work Practice	Local Implementing Procedure or QAP section (if applicable)
CRD Attach. 2, 1. Criterion 1 – Management/Program	LANL organization chart; SD100, <i>Integrated Safety Management System Description</i> ; PD100, <i>DOE/NNSA Approved Los Alamos National Laboratory</i> ; 10 CFR 851, <i>Worker Safety and Health Program</i>	EPC-CP organization chart; EPC-DO-QP-100; EPC-CP-IWD-2102
CRD Attach. 2, 2. Criterion 2 – Management/Personnel Training and Qualification	PD781, <i>Training Program Management</i> ; P1040, <i>Software Quality Management</i>	EPC-CP-QAP-001; EPC-CP Manager Qualification Standard EPC-CP Group Qualification Standard EPC-CP-QS-2005; EPC-CP-QS-2006; EPC-CP-QS-2007
CRD Attach. 2, 3. Criterion 3 – Management/Quality Improvement	P101-18, <i>Procedure for Pause/Stop Work</i> ; PD322-4, <i>Issues Management</i> ; PD324, <i>LANL Metrics Program</i> ; P330-6, <i>Nonconformance Control and Reporting</i>	EPC-CP-QAP-001
CRD Attach. 2, 4. Criterion 4 – Management/Document and Records	PD1020, <i>Document Control and Records Management</i>	ADESH-QAP-001; ESH-AP-006; ESH-AP-007; EPC-CP-QP-0901
CRD Attach. 2, 5. Criterion 5 – Performance/Work Processes	SD100, <i>Integrated Safety Management System Description Document with embedded 10 CFR 851 Worker Safety and Health Program</i> ; PD100, <i>DOE/NNSA Approved Los Alamos National Laboratory</i> ; 10 CFR 851 <i>Worker Safety and Health Program Description</i> ; P151-1, <i>LANL Packaging and Transportation Program Procedure</i> ; PD311, <i>Requirements System and Hierarchy</i> ;	EPC-CP-PIP-2101, <i>NPDES Multi-Sector General Permit Program Implementation Plan</i> ; EPC-CP-TP-2102, <i>Installing, Setting Up, and Operating ISCO Samplers</i> ; EPC-CP-TP-2103, <i>Inspecting ISCO Stormwater Runoff Samplers and Retrieving Samples</i> ; EPC-CP-QP-2104, <i>Installing, Inspecting, and Maintaining MSGP Single Stage Samplers</i>

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 33 of 35
	Revision: 1	Effective Date: 10/20/2021

<b>Summary of QA Requirements and Program-Level (Local) Work Practices</b>		
<b>DOE Order 414.1D / SD 330 Requirements</b>	<b>LANL Work Practice</b>	<b>Local Implementing Procedure or QAP section (if applicable)</b>
	SD330, <i>Los Alamos National Laboratory Quality Assurance Program</i> ; PD340, <i>Conduct of Engineering for Facility Work</i> ; P315, <i>Conduct of Operations Manual</i> ; P330-2, <i>Control and Calibration of Measuring and Test Equipment (M&amp;TE)</i> ; SD601, <i>Conduct of Research and Development</i> ; PD781, <i>Training Program Management</i> P1040, <i>Software Quality Management</i>	EPC-CP-QP-2105, <i>MSGP Stormwater Visual Assessments</i> ; EPC-CP-QP-2106, <i>Processing MSGP Stormwater Samples</i> ; EPC-CP-QP-2107, <i>Preparing Discharge Monitoring Reports for the NPDES Multi-Sector General Permit</i> ; EPC-CP-QP-2108, <i>MSGP Routine Facility Inspections</i> ; EPC-CP-QP-2109, <i>MSGP Corrective Actions</i> ; EPC-CP-QP-2110, <i>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</i>
CRD Attach. 2, 6. Criterion 6 – Performance/Design	<u>For Facility Work:</u> PD340, <i>Conduct of Engineering and Configuration Management for Facility Work</i> ; P341, <i>Facility Engineering Processes Manual</i> ; P342, <i>Engineering Standards</i> ; Engineering Standards Manual; Functional Series documents; Engineering Administrative Procedures <u>For R&amp;D:</u> PD370, <i>Conduct of Engineering for Research and Development (R&amp;D)</i>	No local implementing procedures, LANL Work Practices apply.
CRD Attach. 2, 7. Criterion 7 – Performance/Procurement	P840-1, <i>Quality Assurance for Procurements</i> <sup>1</sup>	No local implementing procedures, LANL Work Practices apply.
CRD Attach. 2, 8. Criterion 8 – Performance/Inspection and Acceptance Testing	P330-8, <i>Inspection and Test</i> <sup>3</sup> ; P330-2, <i>Control and Calibration of Measuring and Test Equipment (M&amp;TE)</i>	No local implementing procedures, LANL Work Practices apply.

<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 34 of 35
	Revision: 1	Effective Date: 10/20/2021

<b>Summary of QA Requirements and Program-Level (Local) Work Practices</b>		
<b>DOE Order 414.1D / SD 330 Requirements</b>	<b>LANL Work Practice</b>	<b>Local Implementing Procedure or QAP section (if applicable)</b>
CRD Attach. 2, 9. Criterion 9 – Assessment/Management Assessment	PD328, <i>LANL Assessment Program</i> ; P328-3, <i>Management Assessment</i> ; P328-4, <i>Management Observation and Verification</i>	ADESH-QAP-001 EPC-CP-QAP-001
CRD Attach. 2, 10. Criterion 10 – Assessment/Independent Assessment	PD328, <i>LANL Assessment Program</i> ; P328-2, <i>Independent Assessment</i> ; P328-4, <i>Management Observation and Verification</i>	No local implementing procedures, LANL Work Practices apply.
CRD Attach. 3, Suspect/Counterfeit Items Prevention	P330-9, <i>Suspect/Counterfeit Items (S/CI)</i> <sup>1</sup>	No local implementing procedures, LANL Work Practices apply.
CRD Attach. 4, Safety Software Quality Assurance Requirements for Nuclear Facilities <sup>2</sup>	P1040, <i>Software Quality Management</i> <sup>2</sup> ; Form 2033, <i>Safety Non-Safety Software Determination, Categorization, and Software Risk Level</i>	No local implementing procedures, LANL Work Practices apply.
<sup>1</sup> S/CI prevention is also integrated into other listed work processes. Application of the S/CI oversight and prevention process is commensurate with the facility/activity hazards and mission impact. The extent of applicability of S/CI prevention for ML-4 items is as described in P840-1, <i>Quality Assurance for Procurements</i> , and P330-9, <i>Suspect/Counterfeit Items (S/CI)</i> . <sup>2</sup> DOE Order 414.1D, Chg 1, <i>Quality Assurance</i> , Attachment 1 requires that all software meet the applicable quality assurance requirements in Attachment 2 of DOE Order 414.1D, Chg 1, using a graded approach. LANL uses risk levels to grade safety software and risk significant non-safety software. See P1040, <i>Software Quality Management</i> , for additional detail. <sup>3</sup> For ML-4 items and activities, inspections and tests are performed to extent required by the applicable codes and/or standards. <sup>4</sup> Core work practices applicable to R&D are described in SD601, <i>Conduct of Research and Development</i> .		




<b>NPDES Multi-Sector General Permit</b>	No: EPC-CP-PIP-2101	Page 35 of 35
	Revision: 1	Effective Date: 10/20/2021

## Attachment 2: MSGP Facilities Associated with Industrial Activities

(Page 1 of 1)

<b>MSGP Facilities Associated with Industrial Activities</b>						
<b>Location</b>	<b>Permitted Facility</b>	<b>Operation</b>	<b>Activity</b>	<b>Sector</b>	<b>Assessment Unit</b>	<b>Canyon</b>
TA-3-38	TA-3-38 Metals Fab Shop	Metal Shop	Fabricated metal products	AA1	NM-9000.A_047	Sandia
TA-09-0214	TA-09-0214 Metal Fabrication Shop	Metal Shop	Fabricated metal products	AA1	NM-128.A_16	Arroyo de la Delfe
TA-16	Stockpile Area	Materials Storage	Materials storage	P1	NM-128.A_01	Canyon de Valle
TA-60	TA-60 Asphalt Batch Plant	Asphalt Batch Plant	Asphalt paving	D1	NM-9000.A_042	Mortandad
TA-60	TA-60 MRF	Materials Recycling Facility	Scrap recycling	N2	NM-9000.A_047	Sandia
TA-60	TA-60 Roads and Grounds	Roads and Grounds Facility	Vehicle maintenance and storage	P1	NM-9000.A_042 NM-9000.A_047	Mortandad Sandia
TA-60-1	TA-60-1 Heavy Equipment Yard	Motor Pool and Metal Shop	Vehicle maintenance and fabricated metal products	P1 and AA1	NM-9000.A_047	Sandia
TA-60-2	TA-60-2 Warehouse	Warehousing	Vehicle fueling	P1	NM-9000.A_047	Sandia

Attachment 16: **EPC-CP-QP-2108, *MSGP ROUTINE FACILITY INSPECTIONS***

<b>EPC-CP-QP-2108</b>	Revision: <b>0</b>	
Effective Date: 07/09/2020	Next Review Date: 07/09/2023	

**Environment, Safety, Health, Quality, Safeguards, and Security Directorate**

**Environment Protection and Compliance – Compliance Programs Group**

**Quality Procedure**

## MSGP Routine Facility Inspections

**Hazard Grading:**    ☒ Low            ☐ Moderate            ☐ High/Complex

**Usage Level:**    ☒ Reference    ☐ UET            ☐ Mixed: UET Sections: \_\_\_\_\_

**Status:**            ☐ New            ☐ Major Revision    ☐ Minor Revision

☐ Review w/No Changes            ☒ Other: New EPC-CP format & numbering system

**Safety Basis:**    ☒ N/A            ☐ USQ            ☐ USI Number: \_\_\_\_\_

**Document Author/Subject Matter Expert:**

Name:	Organization:	Signature:	Date:
Holly L. Wheeler	EPC-CP	Signature on File	07-08-20

**Derivative Classifier:**    ☒ **Unclassified** or ☐ \_\_\_\_\_

Name:	Organization:	Signature:	Date:
Steven E. Wolfel	EPC-CP	Signature on File	07-08-20

**Approval Signatures:**

EPC-CP Reviewer:	Organization:	Signature:	Date:
Alethea Banar	EPC-CP	Signature on File	07-08-20
EPC-CP RLM:	Organization:	Signature:	Date:
Terrill W. Lemke, Team Leader	EPC-CP	Signature on File	07-08-20
EPC-CP RLM:	Organization:	Signature:	Date:
Taunia Van Valkenburg, Group Leader	EPC-CP	Signature on File	07-09-20

*This copy is uncontrolled.*

*Users are responsible for ensuring they work to the latest approved version.*

*To document a required read, Login to [UTrain](#), and go to the Advanced Search.*

<b>MSGP Routine Facility Inspections</b>	No: EPC-CP-QP-2108	Page 2 of 21
	Revision: 0	Effective Date: 07/09/2020

#### REVISION HISTORY

<b>Document Number and Revision</b> <i>[Include revision number, beginning with Revision 0]</i>	<b>Effective Date</b> <i>[Document Control Coordinator inserts effective date]</i>	<b>Description of Changes</b> <i>[List specific changes made since the previous revision]</i>
EPC-CP-QP-023 R0	05/17/2018	New Document. Process formerly part of procedure ENV-RCRA-QP-022 R2, <i>MSGP Corrective Actions</i> .
EPC-CP-QP-023 R1	03/07/2019	Added question to inspection form, associated text to document, and renumbered steps. Removed reference to Los Alamos National Security, LLC. Added reference to LANL BMP Manual. Minor edits made.
EPC-CP-QP-2108, R0	07/09/2020	Supersedes EPC-CP-QP-023 R1. Reformat to new EPC-CP template, re-number procedure and forms to new EPC-CP procedure numbering system, and other edits.

<b>MSGP Routine Facility Inspections</b>	No: EPC-CP-QP-2108	Page 3 of 21
	Revision: 0	Effective Date: 07/09/2020

## Table of Contents

Revision History .....	2
1.0 Introduction .....	4
1.1 Purpose .....	4
1.2 Scope .....	4
1.3 Applicability .....	4
2.0 Roles and Responsibilities.....	4
2.1 EPC-CP MSGP Stormwater Permitting and Compliance Team .....	5
2.2 Deployed Environmental Professionals .....	5
2.3 EPC-CP Stormwater Permitting and Compliance Team Leader .....	6
2.4 EPC-CP Group Leader .....	6
2.5 DESH Manager.....	6
3.0 Precautions and Limitations .....	7
3.1 Precautions.....	7
3.2 Limitations.....	7
4.0 Prerequisite Actions.....	8
4.1 Planning and Coordination.....	8
4.2 Special Tools, Equipment, Parts, and Supplies.....	8
5.0 MSGP Routine Facility Inspections .....	9
5.1 Conducting the Inspection .....	10
5.2 Completing the Inspection Form.....	12
5.3 Completing the Certification Statement .....	13
6.0 Training .....	14
7.0 Records .....	14
8.0 Definitions and Acronyms.....	15
8.1 Definitions .....	15
8.2 Acronyms.....	15
9.0 References .....	15
10.0 Attachments .....	15
Attachment 1: Screenshot Examples of EPC-CP-QP-2108 R0 Form 1, <i>MSGP Routine Facility Inspection</i> in MC Express.....	16
Attachment 2: <i>MSGP Routine Facility Inspection</i> Hard Copy Example, EPC-CP-QP-2108 R0 Form 1....	19

<b>MSGP Routine Facility Inspections</b>	No: EPC-CP-QP-2108	Page 4 of 21
	Revision: 0	Effective Date: 07/09/2020

## 1.0 INTRODUCTION

The National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP), also referred to as the permit, contains specific environmental requirements for inspecting areas of Los Alamos National Laboratory (LANL) covered by the permit. This includes areas where industrial materials or activities are exposed to stormwater, areas identified as potential pollutant sources, areas where leaks and spills have occurred in the past three years, discharge points, and control measures used to comply with the effluent limits of the MSGP.

LANL inspectors and facility personnel are required to perform routine facility inspections for industrial stormwater discharge on LANL areas covered by the MSGP at least quarterly and document observations. Conditions (as described by the MSGP) found during an inspection, requiring a corrective action(s), are managed through EPC-CP-QP-022, *MSGP Corrective Actions*.

### 1.1 Purpose

Part 3.1 of the MSGP contains specific requirements for conducting and documenting periodic industrial routine facility inspections. This procedure governs the activities of personnel involved in conducting industrial routine facility inspections. It also contains information and specific steps to be used for identifying and documenting conditions in order to meet the permit requirements.

### 1.2 Scope

Requirements set forth in this document apply to personnel responsible for meeting the permit conditions on behalf of LANL industrial facilities covered by the MSGP. The MSGP requires periodic inspection of facilities and identification, documentation, and reporting of conditions, including those requiring corrective actions.

Inspections conducted under this procedure are documented using the Maintenance Connection Express™ (MC Express) web application on a tablet or notebook style computer. (In the event of electronic hardware or web application failure, personnel may use a printed hard copy to conduct the inspection.)

### 1.3 Applicability

This procedure applies to Environmental Protection and Compliance—Compliance Programs (EPC-CP) technical staff, Deployed Environmental Professionals (DEPs), and other LANL staff who conduct inspections and monitoring activities at MSGP regulated LANL facilities.

## 2.0 ROLES AND RESPONSIBILITIES

Specific roles and responsibilities for implementation of requirements contained in this procedure are provided below.

<b>MSGP Routine Facility Inspections</b>	No: EPC-CP-QP-2108	Page 5 of 21
	Revision: 0	Effective Date: 07/09/2020

## 2.1 EPC-CP MSGP Stormwater Permitting and Compliance Team

EPC-CP MSGP Stormwater Permitting and Compliance personnel are fully knowledgeable of the specific regulatory requirements identified in the MSGP and are responsible for the following:

- Implementing this procedure;
- Performing routine facility inspections the last month or quarter of the year at regulated sites [depending on inspection frequency identified in site-specific Stormwater Pollution Prevention Plans (SWPPPs)];
- Performing “no exposure” site inspections once a year to ensure conditions of the “no exposure” exclusion are met;
- Performing routine facility inspections at inactive sites once a year;
- Identifying issues requiring a corrective action during any of the above inspections or assessments;
- Determining a condition of non-compliance;
- Notifying managers or legal counsel of non-compliances;
- Modifying the site-specific MSGP Routine Facility Inspection Forms (e.g., add or remove Best Management Practices (BMPs));
- Training personnel to use MC Express;
- Performing a quality review of routine facility inspections and “no exposure” site inspections; and
- Assisting customers with issues associated with MC Express.

## 2.2 Deployed Environmental Professionals

DEPs are responsible for the following:

- Implementing this procedure;
- Knowledgeable of the requirements contained in site-specific SWPPPs within their assigned Facility Operations Directorate (FOD);
- Meeting qualification requirements identified in the Quality Assurance Project Plan EPC-CP-PIP-2101, NPDES *Multi-Sector General Permit Program Implementation Plan*;
- Being trained on EPC-CP-QP-022, *MSGP Corrective Actions*;
- Being trained to *MSGP Routine Inspections OJT*;
- Being familiar with industrial site and facility operations assigned to them so that they minimize sources of pollutants and pro-actively maintain controls to prevent issues that require corrective action;



<b>MSGP Routine Facility Inspections</b>	No: EPC-CP-QP-2108	Page 6 of 21
	Revision: 0	Effective Date: 07/09/2020

- Performing routine facility inspections throughout the year at regulated sites within their FOD (depending on inspection frequency identified in site-specific SWPPPs) and documenting results accurately;
- Acting as liaison between the FOD, Deployed Environment, Safety, and Health (DESH) Manager and facility/operations personnel to ensure corrective actions are addressed appropriately by overseeing maintenance and/or installation of additional controls;
- Educating appropriate facility/operations personnel on the MSGP and site-specific SWPPPs so they successfully implement the conditions of the permit; and
- Notifying EPC-CP MSGP stormwater personnel when additional or substitute BMPs have been installed or old BMPs have been removed so the site-specific MSGP Routine Facility Inspection Form can be modified.

### **2.3 EPC-CP Stormwater Permitting and Compliance Team Leader**

The EPC-CP Stormwater Permitting and Compliance Team Leader is responsible for compliance oversight relative to the MSGP. The Team Leader works with the EPC-CP Group Leader to ensure adequate resources needed to implement the regulatory requirements identified in the MSGP are identified and environmental risks are assessed. The Team Leader will notify upper management of these required resources or environmental risks, as deemed necessary. In the event there is a dispute regarding the regulatory requirements contained in the MSGP, the Team Leader makes the final determination of the required action. The Team Leader notifies upper management of instances of non-compliance with the permit.

### **2.4 EPC-CP Group Leader**

The EPC-CP Group Leader or designee is responsible for ensuring there are adequate resources to implement the regulatory requirements identified in the MSGP. The Group Leader or Team Lead also acts as the duly authorized signatory that certifies the Annual Report and MSGP Routine Facility Inspections conducted by EPC-CP personnel. The Group Leader notifies upper management of instances of non-compliance with the permit or other identified environmental risk.

### **2.5 DESH Manager**

The DESH manager works with programmatic entities and the FOD to identify adequate resources for their industrial facilities to ensure permit requirements can be implemented. The DESH Manager is responsible for the performance of DEPs under their management and to ensure DEPs are trained and qualified. They also provide oversight by ensuring that industrial facilities complying with the MSGP and will notify upper management of instances of non-compliance with the permit or other identified environmental risk.

<b>MSGP Routine Facility Inspections</b>	No: EPC-CP-QP-2108	Page 7 of 21
	Revision: 0	Effective Date: 07/09/2020

### 3.0 PRECAUTIONS AND LIMITATIONS

#### 3.1 Precautions

The hazard rating for the activities described in this procedure is **LOW** and therefore, does not require an Integrated Work Document (IWD).

Personnel must wear appropriate clothing (e.g., boots, long pants, etc.) to perform work in the field.

Work may be discontinued during periods or conditions that make sites dangerous for worker safety or prevent personnel from safely accessing sites (e.g., weather-related events such as flash floods, flooding, lightning, wildfires, hail, icy roads, deep snow, or LANL operations such as firing shots or burns).

If conditions prevent fieldwork, document the conditions on the work order. Multiple attempts can be documented on the original form. If the target date cannot be met, the field personnel must contact the Program Lead no less than 24 hours before the target date for guidance.

#### 3.2 Limitations

In MC Express, document responses to each question on a work order by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" line to "Yes." When using a hard copy form, mark the appropriate "Yes" or "No" check box.

Throughout this process, the field personnel will document comments and notations in the "Comments" field of the associated task line. If field personnel need more space, additional comments can be entered in the "Labor Report Update" field (see Section 5.2) when the work order is updated to "Complete" status. When using a hard copy form, document comments on the corresponding task line. If additional space is needed, comments can be entered in the "Labor Report" section at the bottom of the form.

Some terminology varies between the MC Express software and the Maintenance Connection (MC) desktop software.

- The "Reading" field in MC Express is the same field as "Reading Final" in MC desktop and "Meas." on a hard copy (printed) work order.
- The "Complete" option in MC Express is the same as a "Yes" answer; the "Failed" option in MC Express is the same as a "No" answer. MC desktop and hard copy (printed) work orders use "Yes" and "No" terminology.

Click the "Save" bar after all entries for a task line question have been completed and before proceeding to the next task line question. Failure to "Save" results in lost data entries.

<b>MSGP Routine Facility Inspections</b>	No: EPC-CP-QP-2108	Page 8 of 21
	Revision: 0	Effective Date: 07/09/2020

## 4.0 PREREQUISITE ACTIONS

### 4.1 Planning and Coordination

1. Schedule work to be completed by the target date appearing on the inspection form or as requested by the MSGP Program Lead if an inspection form is not issued.
2. Inform (e.g., by e-mail) facility contacts (as needed) of the schedule for facility inspection work and locations up to a week (preferred) before but no later than the day before (for minor changes) to be added to the appropriate plan of the day (as necessary).
3. Gather the necessary equipment (see Section 4.2) for the work to be done.
4. Using the Safari or Chrome web browser on a tablet or notebook style computer, log into the MC Express application (<http://express.maintenanceconnection.com>) and confirm that the work order list displayed matches your sites. If the work order lists do not match, contact EPC-CP Data Management personnel for clarification.
5. In MC Express, click on the appropriate work order number to open the work order. The work order will open in the display to the Work Order Summary page.
6. Click on the "Tasks" bar to navigate to the work order Tasks page. See MC Express screen shot examples in Attachment 1.
7. Always log out of MC Express when you have finished work OR if work is interrupted.

### 4.2 Special Tools, Equipment, Parts, and Supplies

Ensure the following equipment is available.

- Sturdy hiking boots or steel-toed shoes with soles that grip.
- Facility-specific PPE as required by IWD Part II.
- Cell phone (Only government cell phones are allowed in secure areas. See <https://int.lanl.gov/policy/documents/P217.pdf> for requirements for using portable electronic devices on Laboratory property.)
- Copy of this procedure.
- Copy of facility specific SWPPP and map(s) (as needed).
- Current electronic or paper inspection form EPC-CP-QP-2108 R0 Form 1, *MSGP Routine Facility Inspection*.
- LANL issued tablet or notebook style computer with Safari web browser and Blackberry UEM™ app (see <https://int.lanl.gov/policy/documents/P217.pdf> for requirements for using portable electronic devices on Laboratory property).
- Necessary access keys.

<b>MSGP Routine Facility Inspections</b>	No: EPC-CP-QP-2108	Page 9 of 21
	Revision: 0	Effective Date: 07/09/2020

## 5.0 MSGP ROUTINE FACILITY INSPECTIONS

MSGP routine facility inspections are conducted by the DEP or other qualified facility personnel (as defined in the MSGP or as determined by MSGP Program Lead) during periods when the facility is in operation and during standard operating hours. Results of visual and analytical monitoring for the past year must be considered when planning and conducting an inspection. The inspections are performed on the following facility areas:

- Areas where industrial materials or activities are exposed to stormwater;
- Areas identified in the SWPPP and those that are potential pollutant sources;
- Areas where spills and leaks have occurred in the past;
- Discharge points; and
- Control measures used to comply with the effluent limits contained in the MSGP.

Routine facility inspections are conducted at least quarterly; however, some facilities may conduct monthly inspections (as specified in the facility specific SWPPP). At least once each calendar year, the routine facility inspections must be conducted during a period when stormwater discharge (either rain or snow) is occurring. During the inspection, you must look for the following:

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

Conditions requiring corrective action identified during an inspection, monitoring, or other means must be entered into the MSGP Corrective Action Report database by the DEP(s), EPC-CP stormwater personnel and/or other qualified facility personnel (as defined in the MSGP or as determined by MSGP Program Lead). Follow the process in EPC-CP-QP-022, *MSGP Corrective Actions* to address issues found during an inspection.

If the industrial facility is inactive and unstaffed and there are no industrial materials or activities exposed to stormwater, routine inspections may not be required. A determination of whether a facility is inactive or unstaffed is made in coordination with stormwater personnel from EPC-CP, as there are specific documentation and certification requirements that have to be met prior to discontinuing routine inspections. Such a facility is only required to conduct an annual site inspection.

If the industrial facility is eligible for a “no exposure” exclusion, routine inspections are no longer required. A condition of “no exposure” exists when all industrial materials and activities are

<b>MSGP Routine Facility Inspections</b>	No: EPC-CP-QP-2108	Page 10 of 21
	Revision: 0	Effective Date: 07/09/2020

protected by a storm resistant shelter (e.g., moved to an indoor location) to prevent exposure to rain, snow, snowmelt, and/or runoff. A determination of whether a facility is eligible for “no exposure” status is made in coordination with stormwater personnel from EPC-CP, as there are specific documentation and certification requirements that have to be met prior to discontinuing routine inspections. Such a facility is only required to conduct an annual site evaluation and recertification every five years.

## 5.1 Conducting the Inspection

See Attachment 1 for screen shot examples of EPC-CP-QP-2108 R0 Form 1, *MSGP Routine Facility Inspection* in MC Express. See Attachment 2 for an example of the inspection form in hard copy format. **Questions will be answered “Yes/Complete” or “No/Failed” unless the instructions specify “N/A” may also be used.**

**NOTE:** Each item number listed in red font below corresponds to a red numbered box on both screenshots and hard copy format.

- [1] **ITEM 1:** Observe the weather at time of inspection. Document the weather and temperature in the “Comments” field of the task line (e.g., Temp. 78°F, sunny, wind less than 5mph).
- [2] **ITEM 2:** Observe and document the facility is free of **previously** unidentified discharges from and/or pollutants that have occurred **since the last inspection**. Describe any new discharges and the specific location in the “Comments” field of the task line.
- [3] **ITEM 3:**  
IF the response to **ITEM 2** is “Yes”,  
THEN answer this task line as “N/A”.  
OR  
IF the response to **ITEM 2** is “No”,  
THEN answer this task line as “Yes” and document the corrective action previously initiated for the discharge.
- [4] **ITEM 4:** Check the facility is free of discharges of pollutants at the time of inspection. Describe any pollutant discharge and the specific location in the “Comments” field of the task line.
- [5] **ITEM 5:** Check the facility is free of evidence of pollutants entering the drainage system OR the potential for pollutants entering the drainage system. Describe any discharge or potential discharge and the specific location in the “Comments” field of the task line.
- [6] **ITEM 6:** Check the outfall does not have any **new** evidence of erosion **since the last inspection**. Describe any erosion observed in the “Comments” field of the task line.

<b>MSGP Routine Facility Inspections</b>	No: EPC-CP-QP-2108	Page 11 of 21
	Revision: 0	Effective Date: 07/09/2020



- [7] **ITEM 7:** Check all flow dissipation devices are operating effectively and are not in need of repair. Describe any non-functional status of devices in the “Comments” field of the task line (e.g., repair berm, replace rip rap, etc.).
- [8] **ITEM 8:** Check the outfall is free of evidence of pollutants in the discharge and/or the receiving water. Describe any pollutants observed in the “Comments” field of the task line (e.g., sediment from nearby erosion, etc.).
- [9] **ITEM 9:** Check the outfall is free of unauthorized non-stormwater discharges. Describe any unauthorized discharges observed in the “Comments” field of the task line (e.g., street sweeper emptied contents at Outfall 001, etc.).
- [10] Repeat Steps 6 through 9 for each outfall shown on the work order, if the location has more than one outfall.
- [11] **ITEM 10:** Check each control measure is operating effectively. Describe any non-operational condition of the control measure (e.g., erosion, damage, etc.,) and if the control measure needs maintenance, repair, or replacement in the “Comments” field of the task line.
  - [a] Determine if additional controls are necessary, or that existing controls are insufficient and require replacement with a different type of control.
  - [b] The DEPs are responsible for the selection and oversight of proper installation of appropriate control measures per guidance provided in the LANL Stormwater BMP Manual.
- [12] Repeat Step 11 for each control measure shown on the work order, if the location has more than one control measure.
- [13] **ITEM 11:** Check each sector of NPDES specified industrial area/activity is inspected for exposure to stormwater (e.g., metal fabrication; foundry operations; power generation; asphalt production; fabricating timber products; material recycling; warehouse and transportation activity; treatment and storage of hazardous waste).
  - [a] Determine if the control measures associated with each industrial area/activity are appropriate for the activity, effectively controlling stormwater exposure, and operating.
  - [b] Describe any non-operational condition of the control(s) and needed maintenance or a description of corrective actions in the “Comments” field of the task line.
  - [c] For industrial activities that do not occur at the facility, select “N/A” on that task line.
- [14] Repeat Step 13 for each industrial area/activity shown on the work order, if the facility has more than one sector of NPDES specified industrial area/activity.

<b>MSGP Routine Facility Inspections</b>	No: EPC-CP-QP-2108	Page 12 of 21
	Revision: 0	Effective Date: 07/09/2020

- [15] **ITEM 12:** Check the facility is free of any incidence of non-compliance not documented elsewhere on the inspection form. Describe any additional incidences of non-compliance in the “Comments” field of the task line.
- [16] **ITEM 13:** Check the facility meets the MSGP requirements with existing control measures. Describe any additional control measures needed to comply with the Permit.
- [17] After all task lines have been completed, make sure you have clicked the “Save” bar at the bottom of the page.

## 5.2 Completing the Inspection Form

See Attachment 1 for completing EPC-CP-QP-2108 R0 Form 1 in MC Express and Attachment 2 for a hard copy example.

- [1] Ensure the inspection form has been filled out completely.
- [2] Click the “Back” arrow button  in the upper left hand corner to exit the work order Tasks page and return to the Work Order Summary page.
- [3] Click the checkered flag  in the upper right corner of the work order Summary page to open the Work Order Status Update page. MC Express auto-populates the date and time fields.

### CAUTION

MC Express automatically changes the work order status to “Closed.”

- [4] **ITEM 14:** Click on the expand arrow located on the right side of the “New Status” field and select “Completed” from the available dropdown menu.
  - [a] Ensure the date and time that is auto-populated are the date and time that the **work was completed** and **not the date/time the form was filled out**.
  - [b] IF work needs to be performed over multiple days, THEN note the date and time the work began in the Labor Report field.
  - [c] To update the date or time, click the “Date” field and make necessary adjustments using the available timestamp application. Click “Set” to apply changes.
  - [d] IF using a hard copy form, THEN write the date and time the work was completed.
- [5] **ITEM 15:** The field personnel must type or write his/her name in the “Labor Report Update” field.
- [6] Additional notes, observations, or site conditions not documented in a task line “Comments” field can be documented in the “Labor Report Update” field.




<b>MSGP Routine Facility Inspections</b>	No: EPC-CP-QP-2108	Page 13 of 21
	Revision: 0	Effective Date: 07/09/2020

- [7] Scroll down the page to the “Signature” bar and click the expand arrow on the left side of the bar to open the “Signature” field.
  - [a] **ITEM 16:** Capture an electronic signature by drawing with a finger on the tablet screen.
 

**NOTE:** The mouse must be used to sign electronically when using MC Express on a desktop screen (not a tablet).
  - [b] If using a hard copy form, the field personnel will sign his/her name and write in the date of when the form was signed.
  - [c] By electronically signing the work order, field personnel certifies that the information submitted is “true, accurate, and complete.”
- [8] Click on the “Save” bar at the bottom of the page to close the “Signature” field.

### 5.3 Completing the Certification Statement

Follow Steps 1 through 5 in this section if the inspection form was completed electronically (see Attachment 1). If the inspection form was completed on a hard copy form, skip to Step 6.

- [1] Using the Chrome web browser on a desktop computer, navigate to <http://www.maintenanceconnection.com>. Log into the MC desktop application using your login credentials.
- [2] Click “Open” in the tool bar at the top of the page to open the MC module selections. Click on the “Work Orders” module.
- [3] Click on the “Search” tab at the top left of the page.
  - [a] Enter the work order number in the “Search Value” field.
  - [b] Click the arrow to the right of the “Search Value” field to open the work order in the right split screen.
- [4] Click on the “Report” tab at the top of the page and click the “Work Order Statement” sub-tab.
- [5] Click the Tools drop down menu  in the top right corner of the page.
  - [a] Select “Print” from the options.
  - [b] When the print dialog box opens, select the print options as appropriate for your local printer.
- [6] **ITEM 17:** Obtain a printed name and title, signature, and date on the certification statement.

**The certification statement will be signed no more than 14 days after completion of the inspection and a copy sent to the EPC-CP Program Lead or designee.**

<b>MSGP Routine Facility Inspections</b>	No: EPC-CP-QP-2108	Page 14 of 21
	Revision: 0	Effective Date: 07/09/2020

- [a] The routine facility inspection form must be certified with a signature from a manager that meets the definition of a signatory in MSGP Permit Section B.11.A (e.g., FOD, Operations Manager, DSESH Group Leader, EPC-CP Group Leader, EPC-CP Team Lead).
- [b] The manager is certifying the information submitted is “true, accurate, and complete” by signing the inspection form.
- [7] Attach the completed, signed, and certified inspection form to the facility SWPPP.
- [8] Submit a copy of the completed form to the MSGP Program Lead.

## 6.0 TRAINING

The following personnel require training before implementing this procedure.

- DESH Group and Team Leaders
- EPC-CP MSGP stormwater compliance personnel
- DEPs
- Other personnel identified as being required to conduct stormwater assessments as part of their job duties

All EPC-CP personnel that execute the activities specified in this procedure must meet the minimum qualification and training requirements for their position as identified EPC-CP-PIP-2101, NPDES *Multi-Sector General Permit Program Implementation Plan*. This will include “self-study” (required reading) for this procedure as assigned and documented in accordance with ADOSH-TTP-301, *ADESH Training Program Plan*.

Contract personnel that execute the activities specified in this procedure will be qualified and trained as required by the Exhibit D and Exhibit F. In addition, contract personnel will be required to complete “self-study” (required reading) of this procedure.

## 7.0 RECORDS

MSGP Routine Facility Inspection forms are signed and certified by individual LANL facilities. These completed forms are maintained in the facility’s SWPPP and managed by the facility’s document management system. The MSGP team may retain a copy for reference purposes.

Below are records generated as a result of implementing this procedure. Records generated are identified by title and type.

Record Title	QA Record	Non-QA Record
EPC-CP-QP-2108 R0 Form 1, <i>MSGP Routine Facility Inspection</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<b>MSGP Routine Facility Inspections</b>	No: EPC-CP-QP-2108	Page 15 of 21
	Revision: 0	Effective Date: 07/09/2020

## 8.0 DEFINITIONS AND ACRONYMS

### 8.1 Definitions

See LANL [Definition of Terms](#).

**Best Management Practice (BMP)** – Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of “waters of the United States.” BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage (*40 CFR Part 122.2*).

**Control Measure** – Any BMP or other method (including effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the United States.

### 8.2 Acronyms

See LANL Acronym Master List.

BMP	Best Management Practice
EPC-CP	Environmental Protection and Compliance – Compliance Programs
DEP	Deployed Environmental Professional
DESH	Deployed Environment, Safety, and Health
FOD	Facility Operations Director
LANL	Los Alamos National Laboratory
MC	Maintenance Connection
MC Express	Maintenance Connection Express
MSGP	Multi-Sector General Permit
NPDES	National Pollutant Discharge Elimination System
SWPPP	Stormwater Pollution Prevention Plan

## 9.0 REFERENCES

Federal Register, Final National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Industrial Activities. Federal Register: June 16, 2015, Volume 80, Number 115.

Los Alamos National Laboratory Storm Water BMP Manual

## 10.0 ATTACHMENTS

**Attachment 1:** Screenshot Examples of EPC-CP-QP-2108 R0 Form 1, *MSGP Routine Facility Inspection* in MC Express

**Attachment 2:** EPC-CP-QP-2108 R0 Form 1, *MSGP Routine Facility Inspection* Hard Copy Example

<b>MSGP Routine Facility Inspections</b>	No: EPC-CP-QP-2108	Page 16 of 21
	Revision: 0	Effective Date: 07/09/2020

## Attachment 1: Screenshot Examples of EPC-CP-QP-2108 R0 Form 1, *MSGP Routine Facility Inspection in MC Express*

(Page 1 of 3)

### Work Order Tasks Page (Section 5.1, Steps 1-5)

The screenshot shows the 'MC Express' mobile application interface. At the top, a blue header bar contains a back arrow, the text 'MC Express', and a menu icon. Below the header, a white bar displays 'WORK ORDER: MSGP-RI-52112' and 'Tasks' with a search icon. A 'Tasks' dropdown menu is visible. The main content area is titled 'Weather Information' and lists five tasks, each with a flag icon, a number in a red box, and a description:

- 1** Describe the weather at time of inspection and document the temperature (F°).
- 2** Is the facility free of previously unidentified discharges from and/or pollutants that have occurred since the last inspection If "No" describe.
- 3** If "No" has a CAR been previously initiated for this new discharge?
- 4** Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.
- 5** Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.

At the bottom, a blue bar contains a 'Refresh' button, a grid icon, and a 'List' button.

### Work Order Tasks Page (Section 5.1, Steps 6-9)

The screenshot shows the 'MC Express' mobile application interface. At the top, a blue header bar contains a back arrow, the text 'MC Express', and a menu icon. Below the header, a white bar displays 'WORK ORDER: MSGP-RI-52112' and 'Tasks' with a search icon. A black bar with white text reads: 'Outfall Inspection (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)'. The main content area lists five tasks, each with a flag icon, a number in a red box, and a description:

- 6** Free of Evidence of Erosion? If "No", describe. Asset: [074] Monitored Outfall
- 7** Flow Dissipation Devices Operating Effectively? If "No", describe. Asset: [074] Monitored Outfall
- 8** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe. Asset: [074] Monitored Outfall
- 9** Free of any unauthorized non-stormwater discharges? If "No" describe. Asset: [074] Monitored Outfall
- 130** Free of Evidence of Erosion? If "No", describe. Asset: [073] Substantially Identical Outfall
- 140** Flow Dissipation Devices Operating Effectively? If "No", describe. Asset: [073] Substantially Identical Outfall
- 150** Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe. Asset: [073] Substantially Identical Outfall
- 160** Free of any unauthorized non-stormwater discharges? If "No" describe. Asset: [073] Substantially Identical Outfall

At the bottom, a blue bar contains a 'Refresh' button, a grid icon, and a 'List' button.

<b>MSGP Routine Facility Inspections</b>	No: EPC-CP-QP-2108	Page 17 of 21
	Revision: 0	Effective Date: 07/09/2020

**Attachment 1: Screenshot Examples of EPC-CP-QP-2108 R0 Form 1, *MSGP Routine Facility Inspection* in MC Express (cont.)**

(Page 2 of 3)

Work Order Tasks Page (Section 5.1, Step 11)

MC Express

WORK ORDER: MSGP-RI-52112

Tasks

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

- 180**  
Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.  
Asset: [0300503040002] Asphalt Berm
- 190**  
Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.  
Asset: [0300504060001] Rip Rap
- 200**  
Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.  
Asset: [0300503200004] EnviroSoxx w/ MetalLoxx

Refresh List

Work Order Tasks Page (Section 5.1, Step 13)

MC Express

WORK ORDER: MSGP-RI-52112

Tasks

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

- 220**  
Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.
- 230**  
Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.
- 240**  
Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.
- 250**  
Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.

Refresh List

<b>MSGP Routine Facility Inspections</b>	No: EPC-CP-QP-2108	Page 18 of 21
	Revision: 0	Effective Date: 07/09/2020

**Attachment 1: Screenshot Examples of EPC-CP-QP-2108 R0 Form 1, *MSGP Routine Facility Inspection* in MC Express (cont.)**

(Page 3 of 3)

Work Order Tasks Page (Section 5.1, Steps 15 and 16)

MC Express

WORK ORDER: MSGP-RI-52112

Tasks

**Non-Compliance**

400  
12 Free of incidents of observed non-compliance not already identified above? If "No" describe.

**Additional Control Measures**

420  
13 Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.

Refresh List

Work Order Status Update Page (Section 5.2, Steps 4-6)

MC Express

WORK ORDER: MSGP-RI-52112

Status Update

Issued / Completed

New Status 14  
Completed

Date  
1/23/2019 10:39 AM

Percent Complete 100%

Labor Report Update 15  
Select Comments to Add.....  
Jane Doe

Cancel Save

Work Order Status Update Page (Section 5.2, Step 7)

MC Express

WORK ORDER: MSGP-RI-52112

Status Update

Signature 16  
(Remove)

Jane Doe

Cancel Save



<b>MSGP Routine Facility Inspections</b>	No: EPC-CP-QP-2108	Page 19 of 21
	Revision: 0	Effective Date: 07/09/2020

**Attachment 2: MSGP Routine Facility Inspection Hard Copy Example, EPC-CP-QP-2108 R0 Form 1**  
(Page 1 of 3)

## Los Alamos National Laboratory

**Work Order MSGP-RI-52112**

MSGP Routine Inspection  
Printed 1/23/2019 - 12:45 PM (Duplicate Copy)

### Maintenance Details

<b>Requested By:</b> Admin, Jane on 1/23/2019 12:30:00 PM	<b>Target:</b> 12/31/2020	MSGP Program
<b>Taken By:</b> Banar, Alethea	<b>Priority/Type:</b> / Inspection	RG121.9
<b>Procedure:</b> MSGP Routine Facility Inspection (EPC-CP-QP-2108 R0 Form 1)	<b>Department:</b> Utilities and Infrastructure	TA-3-38 Carpenter Shop
<b>Last PM:</b> N/A	<b>Contact:</b> Admin, Jane	<b>Phone:</b> 123-4567
<b>Reason:</b> Example MSGP Routine Facility Inspection		

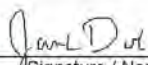
### Tasks

#	Description	Meas.	No	N/A	Yes
<b>Weather Information</b>					
1 20	Describe the weather at time of inspection and document the temperature (F):		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Within the Facility Boundary</b>					
2 40	Is the facility free of previously unidentified discharges from and/or pollutants that have occurred since the last inspection? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 50	If "No" has a CAR been previously initiated for this new discharge?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 60	Is the facility free of discharge of pollutants at the time of inspection? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 70	Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Outfall Inspection (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comment)</b>					
6 90	<b>Monitored Outfall [074]</b> Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 100	<b>Monitored Outfall [074]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 110	<b>Monitored Outfall [074]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 120	<b>Monitored Outfall [074]</b> Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
130	<b>Substantially Identical Outfall [073]</b> Free of Evidence of Erosion? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
140	<b>Substantially Identical Outfall [073]</b> Flow Dissipation Devices Operating Effectively? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
150	<b>Substantially Identical Outfall [073]</b> Free of Evidence of Pollutants in Discharges and/or Receiving Water? If "No", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
160	<b>Substantially Identical Outfall [073]</b> Free of any unauthorized non-stormwater discharges? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Control Measures (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant task comments).</b>					
180	<b>Asphalt Berm [0300503040002]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
190	<b>Rip Rap [0300504060001]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
200	<b>EnviroSoxx w/ MetalLoxx [0300503200004]</b> Control Measure is operating effectively? If "No" describe condition & need for Maintenance, Repair, or Replacement.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Area/Activity exposed to stormwater (identify needed maintenance or a description of corrective actions in relevant task comment).</b>					
220	Material loading/unloading and storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
230	Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



<b>MSGP Routine Facility Inspections</b>	No: EPC-CP-QP-2108	Page 20 of 21
	Revision: 0	Effective Date: 07/09/2020

**Attachment 2: MSGP Routine Facility Inspection Hard Copy Example, EPC-CP-QP-2108 R0 Form 1**  
**(cont.)**  
 (Page 2 of 3)

240	Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
250	Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
260	Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
270	Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
280	Fueling areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
290	Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
300	Machinery: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
310	Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
320	Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
330	Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
340	Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
350	Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
360	Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
370	Leaks and spills: controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
380	<b>Sector A [03005-] Wood processing, transport or treated wood storage areas:</b> controls adequate (appropriate, effective, and operating)? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Non-Compliance</b>				
12 400	Free of incidents of observed non-compliance not already identified above? If "No" describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Additional Control Measures</b>				
13 420	Are permit requirements satisfied with existing control measure(s)? If "No" describe additional control measures needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Labor Report</b>				
14	<b>Completed:</b> 1/23/2019 10:39:00 AM			
15	<b>Report:</b> [Additional notes, observations, or site conditions not documented in Task Line Comments field]			
	Jane Doe			
16		1/23/2019		
	Signature / Name	Date	Signature / Name	Date
I confirm the information as recorded is true, accurate and complete.				

<b>MSGP Routine Facility Inspections</b>	No: EPC-CP-QP-2108	Page 21 of 21
	Revision: 0	Effective Date: 07/09/2020

**Attachment 2: MSGP Routine Facility Inspection Hard Copy Example, EPC-CP-QP-2108 R0 Form 1 (cont.)**

(Page 3 of 3)

**CERTIFICATION STATEMENT**

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

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

17 Print name and title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Attachment 17: EPC-CP-QP-022, *MSGP CORRECTIVE ACTIONS***

**EPC-CP-QP-022**Revision: **3**

Effective Date: 12/20/2018

Next Review Date: 12/20/21

**Environment, Safety, Health, and Quality, Safeguards and Security Directorate**  
**Environmental Protection and Compliance Division – Compliance Programs**  
**Quality Procedure**

## **MSGP Corrective Actions**

**Document Owner/Subject Matter Expert:**

Name:	Organization:	Signature:	Date:
Holly Wheeler	EPC-CP	Signature on File	12-19-18

**Derivative Classifier:** ☒ **Unclassified**

Name:	Organization:	Signature:	Date:
Jacob Meadows	EPC-CP	Signature on File	12-19-18

**Approval Signatures:**

Subject Matter Expert:	Organization:	Signature:	Date:
Holly Wheeler	EPC-CP	Signature on File	12-19-18
Responsible Line Manager:	Organization:	Signature:	Date:
Terrill Lemke	EPC-CP Team Leader	Signature on File	12-20-18
Responsible Line Manager	Organization	Signature:	Date:
Taunia Van Valkenburg	EPC-CP Group Leader	Signature on File	12-20-18

*This copy is uncontrolled.*

*Users are responsible for ensuring they work to the latest approved version.  
To document a required read, Login to [UTrain](#), and go to the Advanced Search.*

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 2 of 31
	Revision: 3	Effective Date: 12/20/2018

### Revision History

<b>Document Number and Revision</b> <i>[Include revision number, beginning with Revision 0]</i>	<b>Effective Date</b> <i>[Document Control Coordinator inserts effective date]</i>	<b>Description of Changes</b> <i>[List specific changes made since the previous revision]</i>
0	08/10	New Document.
1	11/10	Incorporated EPC-CP-QP-062 <i>MSGP Routine Inspections</i> into this document.
2	01/13	Biennial revision, new template implemented.
EPC-CP-QP-022 R3	12/202018	Revision to reflect new 2015 MSGP requirements. New procedure format was used and organizational changes made. This document replaces ENV-RCRA-QP-022, R2, which was split into EPC-CP-QP-023, R0, MSGP Industrial Stormwater Routine Facility Inspections, and EPC-CP-QP-022, R3, MSGP Corrective Actions.

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 3 of 31
	Revision: 3	Effective Date: 12/20/2018

## Table of Contents

Revision History .....	2
Table of Contents .....	3
1.0 Introduction .....	5
1.1 Purpose .....	5
1.2 Scope .....	5
1.3 Applicability .....	5
2.0 Precautions and Limitations .....	5
3.0 Prerequisite Actions.....	6
3.1 Planning and Coordination.....	6
3.2 Tools and Equipment .....	6
4.0 Roles and Responsibilities.....	6
4.1 EPC-CP MSGP Stormwater Personnel .....	6
4.2 Deployed Environmental Professionals .....	7
4.3 EPC-CP Storm Water Team Leader.....	8
4.4 EPC-CP Group Leader .....	8
4.5 DESH Manager.....	8
4.6 Facilities Operations Director.....	9
5.0 Process Description .....	9
5.1 Identifying Conditions Requiring Corrective Actions .....	9
5.2 Corrective Action Deadlines and Documentation.....	10
5.2.1 Immediate Action.....	10
5.2.2 Subsequent Action .....	11
5.2.3 Corrective Action Documentation .....	11
5.3 Effect of Corrective Action .....	12
5.4 Substantially Identical Outfalls.....	13
5.5 Spills.....	13
5.6 Allowable Non-Stormwater Discharges .....	13
5.7 Entering a Condition Requiring Corrective Action .....	14
5.8 Updating Corrective Actions .....	18
5.9 Validation of Corrective Actions.....	18
5.10 Issues Management .....	19
5.11 Notifications for New and Overdue Corrective Actions.....	19
6.0 Training .....	20
7.0 Records .....	20
8.0 Definitions and Acronyms.....	21
8.1 Definitions .....	21
8.2 Acronyms.....	21
9.0 References .....	22
10.0 Attachments .....	23
Attachment 1 – Screenshot Example of CAR Database.....	24
Attachment 2 – Lists of Limited Values in the CAR Database .....	27
Attachment 3 – Example New Corrective Action Finding Notification .....	29

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 4 of 31
	Revision: 3	Effective Date: 12/20/2018

Attachment 4 – Example Weekly Notification of Outstanding Corrective Action Findings .....	30
Attachment 5 – Example Outstanding Corrective Action Report.....	31



<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 5 of 31
	Revision: 3	Effective Date: 12/20/2018

## 1.0 INTRODUCTION

The National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP) contains specific environmental requirements for identifying, implementing, documenting and reporting conditions requiring corrective actions. Laboratory personnel (the Deployed Environmental Professionals (DEPs) and Environmental Protection and Compliance Division – Compliance Programs (EPC-CP) Storm Water Team (also referred to as EPC-CP MSGP stormwater personnel) are required to perform routine facility inspections and document all conditions requiring corrective actions found on an inspection form (see EPC-CP-QP-023). Conditions requiring corrective actions can be identified during facility walk-downs, normal daily operations, and/or analytical data evaluations, and can be identified by facility personnel, the DEP or EPC-CP MSGP stormwater personnel.

### 1.1 Purpose

This procedure governs the activities of Laboratory personnel working at Los Alamos National Laboratory (LANL) involved in identifying, implementing, documenting and entering a condition requiring corrective action, including a permit limit exceedance, into the MSGP Corrective Action Report (CAR) Findings database or CAR database. Part 4.4 of the MSGP contains specific documentation requirements relative to corrective actions. This procedure satisfies these requirements.

### 1.2 Scope

Requirements set forth in this document apply to personnel responsible for meeting the permit conditions on behalf of LANL industrial sites covered by the MSGP. This permit requires periodic inspection of sites and identification, implementation, documentation, tracking and reporting of conditions requiring corrective actions.

### 1.3 Applicability

This procedure applies to the EPC-CP MSGP stormwater personnel and DEPs who conduct stormwater inspections and monitoring activities at permitted MSGP sites within LANL.

## 2.0 PRECAUTIONS AND LIMITATIONS

- 2.1 The hazard level for field activities and office work described in this procedure is a **LOW hazard** rating and does not require an Integrated Work Document (IWD).
- 2.2 Inspections or walk-downs may be discontinued during periods or conditions that make sites dangerous for worker safety or prevent personnel from safely accessing sites (e.g., weather-related events such as flash floods, flooding, lightning, wildfires, hail, icy roads, deep snow, or LANL operations such as firing shots or open burning).

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 6 of 31
	Revision: 3	Effective Date: 12/20/2018

### **3.0 PREREQUISITE ACTIONS**

#### **3.1 Planning and Coordination**

DEPs and EPC-CP MSGP stormwater personnel require a CAR database user account ([https://msgp-car.lanl.gov/forms/frmservlet?config=msgp\\_car](https://msgp-car.lanl.gov/forms/frmservlet?config=msgp_car)). Facility Operations Directors (FODs), Deployed Environment, Safety, and Health (DESH) Managers and Operations (Ops) Managers can request a read-access account by contacting the EPC-CP MSGP data administrator for access.

#### **3.2 Tools and Equipment**

Tools and equipment for documenting inspections and updating the CAR database include the following:

- LANS issued tablet or notebook style computer with Safari web browser and Blackberry UEM™ app. (see <https://int.lanl.gov/policy/documents/P217.pdf> for requirements on using portable electronic devices on Laboratory property), and
- Access to the CAR database.

Tools and equipment for field work associated with performing inspections and site walk-downs are listed below.

- Sturdy hiking boots or steel or composite toed shoes with soles that grip (some sites require steel or composite toed shoes).
- Safety glasses if required by site.
- Cell phone (only government cell phones with batteries removed are allowed in secure areas.) See <https://int.lanl.gov/policy/documents/P217.pdf> for requirements on using portable electronic devices on Laboratory Property.)
- Copy of this procedure.
- Copy of facility specific Stormwater Pollution Prevention Plan (SWPPP) and map(s) (as needed).
- Necessary access.
- Stockpile of temporary stormwater controls (Best Management Practices [BMPs], e.g., inlet protection, absorbent pads for spills, gravel bags, S-Fence, wattles, etc.)

### **4.0 ROLES AND RESPONSIBILITIES**

Specific roles and responsibilities for implementation of requirements contained in the MSGP are provided below.

#### **4.1 EPC-CP MSGP Stormwater Personnel**

EPC-CP MSGP stormwater personnel will be fully knowledgeable of the specific regulatory requirements identified in the MSGP. Additional responsibilities are listed below.

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 7 of 31
	Revision: 3	Effective Date: 12/20/2018

- Implement this procedure;
- Oversee the corrective action process;
- Identify conditions requiring corrective action during internal routine facility inspections, “no exposure” assessments, and/or facility walk-downs performed by them, or during evaluation of monitoring data when permit limits are exceeded;
- Perform a quality review of conditions requiring corrective action submitted in the CAR database;
- Notify managers and/or legal counsel of non-compliances;
- Assist DEPs and other customers with issues associated with the CAR database;
- Prepare and submit 45-day exceedance notification to Region 6, Environmental Protection Agency (EPA) containing information provided by the DEP;
- Prepare and submit the Annual Report summarizing all conditions requiring corrective action for the year in EPA’s electronic NPDES eReporting tool (NeT);
- Prepare management requested metrics relative to conditions requiring corrective action;
- Provide information to the Issues Management Coordinator (IMC) for entering water quality exceedances and other permit violations into the Issues Management (IM) tool; and
- Train personnel to use the CAR database.

#### **4.2 Deployed Environmental Professionals**

DEPs will be fully knowledgeable of the site-specific SWPPP for their assigned sites and corrective action requirements identified in the MSGP. In addition, they shall be appropriately trained to meet the job qualifications identified in the *Quality Assurance for Stormwater Multi-Sector General Permit for Industrial Activities Program* (ENV-CP-QAPP-MSGP) and shall be familiar with the regulatory requirements identified in the MSGP, demonstrated by achieving a satisfactory score on the *MSGP Routine Facility Inspections* on-the-job training course #53040. Further, they shall be familiar with facility operations and controls to minimize potential pollutant sources and proactively maintain controls in an attempt to prevent conditions that require corrective action.

The DEPs are responsible for implementing this procedure. They will identify conditions requiring corrective actions observed at their industrial sites and enter them into the CAR database. DEPs act as liaison between the FOD, DESH Manager and facility/operations personnel to ensure all corrective actions are addressed appropriately by overseeing maintenance and/or installation of additional controls, as needed. DEPs are responsible for ensuring corrective action(s) is completed per MSGP requirements and the corrective action timeline (see Sections 5.2.1 and 5.2.2 of this procedure). They will also provide timely updates to the CAR database for closure or update of corrective actions as they are implemented.

When permit limits are exceeded, DEPs are responsible for identifying the source and maintaining existing controls or implementing additional controls, as necessary, to prevent further exceedances.

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 8 of 31
	Revision: 3	Effective Date: 12/20/2018

If the DEP or EPC-CP MSGP stormwater personnel determine that additional controls are necessary, or that existing controls are insufficient and require replacement with a different type of control, the DEPs are responsible for the selection and oversight of proper installation of appropriate control measures per guidance provided in the [LANL Stormwater BMP Manual](#).

DEPs will notify the EPC-CP MSGP data administrator or MSGP Program Lead of key personnel changes (FOD, DESH Manager, Ops Manager, DEP) to ensure automated CAR status notifications are distributed to the appropriate personnel.

#### **CAUTION**

##### **Failure to appropriately control pollutant discharges can result in fines and penalties.**

Implementing the same control measure numerous times without an improvement in minimization of off-site pollutants is an indication that the control measure is not stringent enough to meet Technology-Based or Water Quality-Based effluent limits identified in the MSGP. Per the MSGP, documentation is required in the SWPPP that justified the selection, design, installation and implementation of a control measure to ensure effluent limits are met.

#### **4.3 EPC-CP Storm Water Team Leader**

The EPC-CP Storm Water Team Leader (or team leader) is responsible for compliance oversight relative to the MSGP. The team leader will ensure resources needed to implement the regulatory requirements identified in the MSGP are identified and environmental risks are assessed. Upper management will be notified of these resources or environmental risks, as deemed necessary. In the event there is a dispute regarding the regulatory requirements contained in the MSGP, the Team Leader will make the final determination of the required action. The Team Leader will notify upper management of instances of non-compliance with the permit.

#### **4.4 EPC-CP Group Leader**

The EPC-CP Group Leader or designee is responsible for ensuring there are adequate resources to implement the regulatory requirements identified in the MSGP. The group leader also acts as the duly authorized signatory that certifies the Annual Report or Routine Facility Inspections conducted by EPC-CP personnel. The group leader will notify upper management of instances of non-compliance with the permit or other identified environmental risk.

#### **4.5 DESH Manager**

The DESH Manager shall work with programmatic entities and the FOD to identify resources for their industrial sites to ensure permit requirements can be implemented. The DESH Manager is responsible for the performance of DEPs under their management. They also provide oversight for ensuring that industrial sites are complying with the MSGP and are responsible for notifying upper management of instances of non-compliance with the permit or other identified environmental risk they become aware of.

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 9 of 31
	Revision: 3	Effective Date: 12/20/2018

#### 4.6 Facilities Operations Director

The FOD provides organizational leadership to ensure that all facility and programmatic activities under their authority are performed in compliance with the MSGP. The FOD is also responsible for establishing an environmental compliance envelope. It is the FOD's responsibility to maintain trained and qualified DEPs and Waste Management Coordinators (WMCs) on staff.

### 5.0 PROCESS DESCRIPTION

Requirements regarding corrective actions are described in Part 4 of the MSGP. These requirements and conditions are summarized in this section and directly correspond to data fields and lists of values available in the CAR database.

#### 5.1 Identifying Conditions Requiring Corrective Actions

##### Deployed Environmental Professional (DEP)

- [1] **IF** any of the following conditions are identified,  
**THEN** review and revise, as appropriate, the selection, design, installation, and implementation of control measures in the SWPPP to eliminate the condition and prevent recurrence in the future:
- An unauthorized release or discharge (e.g., spill, leak, or discharge of non-stormwater not authorized by the MSGP [see Section 5.6 of this procedure for a description of allowable discharges]);
  - An inspection or evaluation of the facility by an EPA official and/or local or State entity, determines that modification to the control measures are necessary to meet the non-numeric effluent limits in the MSGP;
  - It is observed during the routine facility inspection, facility walk-down, and/or the quarterly visual assessment that the control measures are not being properly operated and maintained;
  - Construction or a change in design, operation, or maintenance at the facility significantly changes the nature of pollutants discharged in stormwater from the facility, or significantly increases the quantity of pollutants discharged;
  - The average of four quarterly sampling results exceeds an applicable benchmark. If less than four benchmark samples have been taken, but the results are such that an exceedance of the four quarter average is mathematically certain, (i.e., if the sum of quarterly sample results to date is more than four times the benchmark level) this is considered a benchmark exceedance;
  - If effluent limitation guidelines are exceeded at the Asphalt Batch Plant (Sector D); or
  - If impaired water quality standards are exceeded.

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 10 of 31
	Revision: 3	Effective Date: 12/20/2018

#### **DEP and/or EPC-CP MSGP stormwater personnel**

- [2] Enter all conditions requiring a corrective action into the EPC-CP MSGP CAR database.

#### **DEP and/or Facility Personnel**

- [3] Take immediate action to mitigate the condition requiring a corrective action.
- [4] If needed, follow the permit timeline and process for individual corrective actions that require extensive maintenance.
- [5] Any person authorized to conduct work at LANL can identify a potential stormwater issue. If this occurs, they will:
  - [a] Contact the DEP or EPC-CP MSGP stormwater personnel.
  - [b] The DEP or EPC-CP MSGP stormwater personnel will determine if a condition exists that requires a corrective action.

### **5.2 Corrective Action Deadlines and Documentation**

Specific deadlines for taking corrective action and required documentation are provided in the subsections below.

#### **5.2.1 Immediate Action**

#### **DEP and/or Facility Personnel**

- [1] **IF** a condition exists that requires corrective action, as described in Section 5.1 [1], **THEN** take the following action immediately (on the same day the condition is found):
  - [a] All reasonable steps necessary to minimize or prevent the discharge of pollutants until a permanent solution is installed and made operational.
  - [b] Clean up any contaminated surfaces so that material will not discharge during subsequent storm events.
  - [c] Minimize or prevent the discharge of pollutants until a permanent solution (if necessary) is installed and made operational.
  - [d] Any corrective action resulting in a change to a stormwater control or procedure (documented in the SWPPP) requires modification of the SWPPP within 14 calendar days of completing corrective action work.

#### **NOTE**

For minor conditions, immediate action is often sufficient and no additional action is necessary.

- [2] **IF** a condition is identified at a time in the work day when it is too late to initiate corrective action (i.e., 3:00 pm or later), **THEN**:

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 11 of 31
	Revision: 3	Effective Date: 12/20/2018

- [a] Corrective action must begin no later than the following work day.
- [b] Implement the requirements identified in Section 5.2.1 [1] above.

#### **CAUTION**

Solely calling or e-mailing personnel requesting action to be taken is not considered taking immediate action. Entering a Facility Service Request (FSR) is appropriate if it formally starts the work process to address the condition. Temporary BMPs still need to be put in place to minimize or prevent off-site migration of pollutants, especially if a storm event is likely.

### **5.2.2 Subsequent Action**

#### **DEP and/or Facility Personnel**

- [1] **IF** additional action is required,  
**THEN:**
  - [a] Complete the corrective action (e.g., install a new or modified control and make it operational or complete the repair) before the next storm event or within 14 calendar days from the time of discovery.
  - [b] Any corrective action resulting in a change to a stormwater control or procedure documented in the SWPPP requires modification of the SWPPP within 14 calendar days of completing corrective action work.
- [2] **IF** completion of the corrective action is infeasible within the 14-day timeframe,  
**THEN:**
  - [a] Document the reasoning in the database.
  - [b] Provide a schedule for completion of the corrective action in the database.

#### **NOTE**

Completion of the corrective action cannot exceed 45 days from the time of discovery without having to notify EPA. These time intervals are not grace periods, but are schedules considered reasonable for documenting finding(s) and for making repairs and improvements. They are included in the MSGP to ensure that the conditions prompting the need for these repairs and improvements are not allowed to persist indefinitely. In no instance will the corrective action remain open indefinitely (Part 4.3.2 of the MSGP).

### **5.2.3 Corrective Action Documentation**

#### **DEP and/or EPC-CP**

- [1] Document existence of any of the conditions listed in Section 5.1 [1] of this procedure in the CAR database within 24 hours of becoming aware of such condition (or if identified late in the work day, by the following work day).



<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 12 of 31
	Revision: 3	Effective Date: 12/20/2018

[2] Include the following information in the documentation:

- Description of the condition triggering the need for corrective action review. For any spills or leaks, include the following information:
  - a description of the incident including material, date/time, amount, location, and reason for spill;
  - any leaks, spills or other releases that resulted in discharges of pollutants to waters of U.S., through stormwater or otherwise;
- Date the condition was identified; and
- Description of immediate actions taken (Part 4.3.1 of the MSGP) to minimize or prevent the discharge of pollutants. For any spills or leaks, include response actions, the date/time clean-up was completed, notifications made (if any), and staff involved. Also include any measures taken to prevent the reoccurrence of such releases (Part 2.1.2.4 of the MSGP).

[3] Provide the dates when each corrective action was initiated and completed (or is expected to be completed).

- [a] If applicable, document why it is infeasible to complete the necessary installations or repairs within the 14-day timeframe, and
- [b] Document your schedule for installing the controls and making them operational as soon as practicable after the 14-day timeframe.
- [c] **IF** EPA must be notified regarding an extension of the 45-day timeframe, **THEN** the DEP must document the rationale for an extension.

#### **EPC-CP MSGP stormwater personnel**

[4] Prepare and submit 45-day exceedance notifications based on information entered into the CAR database by the DEPs.

#### **DEP**

[5] Ensure that the information in the CAR database is kept up-to-date, to include the following:

- [a] a thorough description of the nature of the condition requiring corrective action,
- [b] corrective action(s) taken and/or outstanding,
- [c] the steps and schedule for completing a corrective action (if not completed within 14 days), and
- [d] rationale for why the corrective action cannot be completed within 45-days.

### **5.3 Effect of Corrective Action**

When the condition requiring corrective action is a permit violation (e.g., non-compliance with an effluent limit or exceedance of a water quality standard), correcting it does not remove the original

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 13 of 31
	Revision: 3	Effective Date: 12/20/2018

violation. Additionally, failing to take corrective action in accordance with Part 4 of the MSGP is an additional permit violation.

**NOTE**

The EPA will consider the appropriateness and promptness of corrective action in determining enforcement responses to permit violations (Part 4.5 of the MSGP).

#### **5.4 Substantially Identical Outfalls**

When the condition requiring corrective action is associated with an outfall that has been identified as a “substantially identical outfall” (see Parts 3.2.3 and 6.1.1 of the MSGP), a review will assess the need for corrective action for all related substantially identical outfalls. Any necessary changes to control measures that affect these other outfalls will be made before the next storm event if possible, or as soon as practicable following that storm event. Any condition requiring corrective action(s) will be addressed within the timeframes set forth in Part 4.3 of the MSGP (also see Section 5.2 of this procedure).

#### **5.5 Spills**

##### **DEP and/or Facility Personnel**

- [1] Clean up all leaks or spills immediately and enter into the CAR database.
  - [a] If the spill is immediately cleaned up, and controls are implemented to prevent further leakage, the condition requiring corrective action can be closed.

#### **5.6 Allowable Non-Stormwater Discharges**

The following are allowable non-stormwater discharges authorized by the MSGP:

- Discharges from emergency/unplanned fire-fighting activities;
- Fire hydrant flushing;
- Potable water, including water line flushing;
- Uncontaminated condensate from air conditioners, coolers/chillers, and other compressors and from the outside storage of refrigerated gases or liquids;
- Irrigation drainage;
- Landscape watering provided all pesticides, herbicides, and fertilizer have been applied in accordance with the approved labeling;
- Pavement wash waters where no detergents or hazardous cleaning products are used (e.g., bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols), and wash waters do not come into contact with oil and grease deposits, sources of pollutants associated with industrial activities (see Part 5.2.3 of the MSGP), or any other toxic or hazardous materials, unless residues are first cleaned up using dry clean-up methods (e.g., applying absorbent

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 14 of 31
	Revision: 3	Effective Date: 12/20/2018

material and sweeping, using hydrophobic mops/rags) and you have implemented appropriate control measures to minimize discharges of mobilized solids and other pollutants (e.g., filtration, detention, settlement);

- Routine external building washdown/power wash water that does not use detergents or hazardous cleaning products (e.g., those containing bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols);
- Uncontaminated ground water or spring water;
- Foundation of footing drains where flows are not contaminated with process materials; and
- Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of your facility, but not intentional discharges from the cooling tower (e.g., “piped” cooling tower blowdown or drains).

## 5.7 Entering a Condition Requiring Corrective Action

To enter a condition requiring corrective action into the CAR database, perform the steps in this section.

Enter clear, complete, and concise language. Correct grammar, punctuation, and spelling errors.

Select the appropriate value from each pull-down menu that applies to the condition requiring corrective action. This information will be used to populate a report that will be submitted to the EPA and is extracted from the database to populate automatic e-mail notifications to managers. Therefore, it is critical that all information entered into the CAR database is correct.

### DEP or EPC-CP MSGP stormwater personnel

- [1] Using internet explorer, access the CAR database at [https://msgp-car.lanl.gov/forms/frmservlet?config=msgp\\_car](https://msgp-car.lanl.gov/forms/frmservlet?config=msgp_car).
- [2] From the main screen, click on “Enter New Corrective Action.”
  - [a] Select the “Corrective Action Header” tab.
  - [b] Enter the following (refer to Attachment 1 for data entry screenshot cross reference to **Item numbers in red** listed below):
    - **Item 1:** Name of facility by clicking on the “List” tab and selecting a facility (refer to Attachment 2 for a list of available facilities).
    - **Item 2:** Date/Time problem was identified (mm/dd/yyyy hh:mm) (*the inspection date or the date you first become aware of the issue*).

There must be a space between the date (mm/dd/yyyy) and the time (hh:mm).

All dates and times will be entered as mm/dd/yyyy hh:mm in 24-hr (military time) format. Time is tracked to document whether immediate action was taken, whether the issue was documented within 24 hours, and the specific time interval before a corrective action is completed and closed (see Section 5.2 of

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 15 of 31
	Revision: 3	Effective Date: 12/20/2018

this procedure for corrective action deadlines). Do not leave time as 00:00 (the system default) unless the action occurred at midnight.

- **Item 3:** Date/Time of Notification to EPC-CP (mm/dd/yyyy hh:mm) *(the date the condition is entered into the CAR database or verbal or written notification is provided to the EPC-CP MSGP Program Lead. Conditions reported by verbal or written notification must still be entered into the CAR database.)*

The existence of any of the conditions listed in Section 5.1 of this procedure must be documented in the CAR database within 24 hours of becoming aware of such condition (or if identified late in the work day, by the following work day).

- **Item 4:** FOD Responsible for CA (Name & Org) by clicking in the box. FOD designations (for example “STO”) and the associated name list will pop up. Select the appropriate FOD.

Contact the EPC-CP MSGP Program Lead at 667-1312 or [hbenson@lanl.gov](mailto:hbenson@lanl.gov) if the FOD name or organization is incorrect, so this can be corrected.

- **Item 5:** Describe Specific Evaluation Location (for example, “Northeast corner of Building TA-3-66.”)
- **Item 6:** Inspector Z-Number by clicking in the box, which will populate with the Z number of the person who is logged into the database and performing entry. In most instances, the DEP will be identified as the inspector.
- **Item 7:** Person Identifying Condition Z-Number by clicking in the box, which will populate with the Z number of the person who is logged into the database and performing entry. If the person identifying the condition is someone other than the inspector, enter that person’s Z-number.

Any person authorized to conduct work at LANL can identify a potential stormwater issue. If this occurs, they will contact the DEP or EPC-CP MSGP stormwater personnel who will determine if a condition exists that requires corrective action.

- **Item 8:** Status defaults to “A new corrective action” without making a selection. In the event a condition is entered that is determined to not require corrective action, this status can be changed to “Void” by clicking in the box and selecting from the Status list. The decision to assign a status of “Void” is at the discretion of EPC-CP MSGP stormwater personnel and reserved for EPC-CP use.
- **Item 9:** If the Status is changed to “Void,” enter a clear rationale for voiding the record.
- **Item 10:** Once all of the above information is entered correctly, click “Save” and go to Step 3.

All boxes identified with a red asterisk are “required fields” meaning the form cannot be saved unless these fields are completed. For the purpose of fulfilling

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 16 of 31
	Revision: 3	Effective Date: 12/20/2018

corrective action documentation requirements (see Section 5.2.3 of this procedure), all applicable fields are required fields.

The system will automatically assign a Corrective Action Report identification (ID) number and move to the “Corrective Action Details” tab.

[c] Select the “Corrective Action Details” tab.

[d] Enter the following:

- **Item 11:** Identify the condition triggering the need for this review by clicking on the “List” button and selecting the appropriate condition or, if none of the available conditions fit the issue, selecting “Other” and entering a description of the condition (refer to Attachment 2 for a list of available conditions/finding descriptions).

These conditions are described in Section 5.1 of this procedure. Qualified personnel (EPC-CP MSGP stormwater personnel and DEPs) must be knowledgeable of these conditions and select the correct one when entering an issue. If there is uncertainty about which condition applies, refer to the definitions in Section 8.1 of this procedure or contact the MSGP Program Lead at 667-1312 or [hbenson@lanl.gov](mailto:hbenson@lanl.gov) for clarification prior to selecting “Other.”

- **Item 12:** If the condition in Item 11 is set to “Other,” enter a description of the condition in this field.
- **Item 13:** Briefly describe the nature of the problem identified during the inspection (e.g., erosion, damage to a BMP, trash, spill, etc.) and the specific evaluation location (e.g., at TA-60 Roads and Grounds).

Spills or other emergency conditions meeting the criteria for corrective action (identified in Parts 4.1 and 4.2 of the MSGP) will require documentation in the CAR database even though the condition was not identified during an inspection.

- **Item 14:** Enter how the problem was identified by clicking on the “List” button and selecting the appropriate option, or if none of the available options fit, selecting “Other.”
- **Item 15:** If “Other” is selected for Item 14, enter a description of how the problem was identified in this field.
- **Item 16:** Enter a description of the condition requiring corrective action, or identify action to be taken to eliminate or further investigate the problem (e.g., describe modifications or repairs to control measures, work conducted to address the condition or to be scheduled in the future, etc.) or if no modifications are needed, the basis for that determination. Include relevant dates and facts when updating this field as the corrective action progresses.
- **Item 17:** Indicate whether the problem was identified at a Substantially Identical Outfall (see Section 5.4 of this procedure) by typing “Y” for yes and “N” for no.

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 17 of 31
	Revision: 3	Effective Date: 12/20/2018

- **Item 18:** If the answer to Item 17 is “Y,” enter the associated SIO(s) in this field. If the answer to Item 17 is “N,” leave this field blank. SIOs are identified in the site-specific SWPPPs. For assistance with identifying SIOs contact the MSGP Program Lead.
- **Item 19:** If the answer to Item 17 is “Y,” describe how the corrective action taken is appropriate for all SIOs (see Section 5.4 of this procedure), document any additional corrective action(s) needed for any of the SIOs, or document why no additional action is needed for the SIOs. If the answer to Item 17 is “N,” leave this field blank.
- **Item 20:** Did/will the corrective action require modification to the SWPPP? Type in “Y” for yes and “N” for no (see Section 5.1 of this procedure for conditions that require SWPPP review and revision).
- **Item 21:** Date/Time Corrective Action was initiated (mm/dd/yyyy hh:mm).  
The duration between the Date/Time problem was identified and Date/Time corrective action was initiated is used to determine whether “immediate action” was taken (see Section 5.2.1 of this procedure). Immediate action is a requirement of the MSGP and therefore, will be documented in accordance with permit requirements.
- **Item 22:** Date/Time corrective action was completed **OR** expected completion Date/Time (mm/dd/yyyy hh:mm).  
If the corrective action has not been completed, enter an expected completion date and time. The system will not allow entry of a date in both locations.  
The duration between the Date/Time Problem was Identified and Date/Time corrective action was completed or the Date/Time Problem was identified and expected completion Date/Time is used to determine whether “subsequent action” timeframes and documentation requirements were/are being met, and to forecast where a 45-day exceedance notification to EPA is required (see Section 5.2.3 of this procedure). When information is incorrect or not entered, the MSGP data administrator or Program Lead will contact the originator and request correction(s).
- **Item 23:** If the corrective action is not or will not be completed within 14 days, provide the status of the corrective action at the end of the 14 day timeframe, the rationale for why it is infeasible to complete the corrective action within 14 days, and describe any remaining steps (including timeframe/schedule associated with each step) necessary to complete the corrective action.
- **Item 24:** Date EPA notified of intent to exceed 45 Days (mm/dd/yyyy hh:mm) is to be completed by EPC-CP MSGP stormwater personnel to document submittal of notification letter.
- **Item 25:** Once all of the above information is entered correctly, click “Save” so the corrective action information is retained.

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 18 of 31
	Revision: 3	Effective Date: 12/20/2018

- [3] **IF** there are additional conditions to enter requiring corrective action, as described in Section 5.1 [1],  
**THEN** perform these steps:
  - [a] Return to the “Corrective Action Header” tab.
  - [b] Click the “Enter New Corrective Action” button in the lower left hand corner of the screen.
  - [c] Click “Back to Record Selection” to return to the list of saved conditions requiring corrective action on the initial screen (if desired).

## 5.8 Updating Corrective Actions

### DEP or EPC-CP MSGP stormwater personnel

- [1] Access the CAR database at [https://msgp-car.lanl.gov/forms/frmservlet?config=msgp\\_car](https://msgp-car.lanl.gov/forms/frmservlet?config=msgp_car).
  - [a] On the main screen, scroll down to the corrective action number to be edited.
  - [b] Click “Edit.”
- [2] Navigate to the desired field, and input the updated information. Most changes will occur relative to updating the status, schedule, and dates of corrective actions.
- [3] Click “Save” to save all changes to the information.

## 5.9 Validation of Corrective Actions

### EPC-CP MSGP stormwater personnel

- [1] Access the CAR database at [https://msgp-car.lanl.gov/forms/frmservlet?config=msgp\\_car](https://msgp-car.lanl.gov/forms/frmservlet?config=msgp_car).
- [2] Ensure information entered into the CAR database is correct.
  - [a] Check all entered fields for a condition requiring corrective action to ensure that information is clear, correct, and concise.
  - [b] **IF** not,  
**THEN** notify the DEP of the information that needs to be changed.
  - [c] The DEP is responsible for ensuring all information is validated before generating the annual report.
- [3] **IF** the identified condition requiring corrective action is a repeat of a previous condition or if it is determined not to be a condition requiring corrective action,  
**THEN**
  - [a] Under “Status,” select “Void.”
  - [b] The “Void” designation allows MSGP stormwater personnel to manually exclude this information in the annual report.



<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 19 of 31
	Revision: 3	Effective Date: 12/20/2018

### 5.10 Issues Management

EPC-CP MSGP stormwater personnel or DEPs use the IM tool as the institutional performance issues and tracking system for identified quality assurance (QA) affecting issues. A QA affecting issue includes, but is not limited to, the following conditions.

- Exceedance of a water quality standard.
- Exceedance of an effluent limitation (i.e., at the Asphalt Batch Plant).
- Repeat conditions requiring corrective actions or trends identified by EPC-CP MSGP stormwater personnel.
- Conditions requiring immediate action, where failure to take action would result in pollutants being released to waters of the state.
- Immediate non-compliance with the MSGP.
- Violations identified by the regulatory authority.

The MSGP Program Lead periodically evaluates a summary of open conditions requiring corrective actions in the CAR database. Using the above conditions, the MSGP Program Lead or DEP determines which corrective actions, if any, will be transferred into the IM tool.

#### DEP or EPC-CP MSGP stormwater personnel

- [1] **IF** an issue needs to be entered into the IM tool,  
**THEN** send the following information to the EPC Division IMC for entry into the IM tool:
- Organization responsible for the issue/problem;
  - A description of the nature of the condition identified and what needs to be done to address it;
  - Regulatory citation for the non-compliance;
  - Issues Responsible Manager (IRM);
  - Action, actionee, and due date for each issue; and
  - Whether the issue was identified internal or external to LANL.

### 5.11 Notifications for New and Overdue Corrective Actions

- [1] When a new condition requiring corrective action is entered into the CAR database, the FOD, Ops Manager, DESH Manager, inspector (usually the DEP) and EPC-CP MSGP stormwater personnel and managers are notified automatically by e-mail on the evening of the day the corrective action was entered.
- [2] Automated e-mail notifications will be sent during the corrective action process depending on the length of time it will take to close.
- [3] A notification will be sent out:

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 20 of 31
	Revision: 3	Effective Date: 12/20/2018

- When a new corrective action is entered into the database (see Attachment 3); and
- Weekly notifications of outstanding (open) corrective actions (see Attachment 4).

Each notification contains a hyperlink to a web-based report containing a list of all open issues and timeline status where final corrective actions have not been completed (see Attachment 5) by the FOD. The report contains the FOD, Facility, unique Corrective Action identification number assigned by the CAR database, the person identifying the condition, the date the issue was identified, the date corrective action was initiated, the projected completion date, and a color-coded count (corresponding to the Corrective Action deadlines in Section 5.2 of this procedure) of the number of days to take action and the number of days the issue has been open, and the issue/problem description.

These notifications serve to apprise recipients of the status of open conditions requiring corrective actions and to provide sufficient time for MSGP stormwater personnel to provide documentation to EPA at the 45-day deadline. This will assist the FOD, DESH Managers, Ops Managers, and the DEPs with keeping track of conditions requiring corrective actions.

## 6.0 TRAINING

The following personnel require training before implementing this procedure:

- EPC-CP Group Leader and Team Leader;
- EPC-CP MSGP stormwater personnel;
- DEPs; and
- Other LANL or subcontract personnel identified as being required to conduct stormwater inspections, or other assessments and enter conditions requiring corrective actions into the CAR database as part of their job duties.

For EPC-CP MSGP stormwater personnel, the training method for this procedure is “self-study” (reading). DEPs shall achieve a satisfactory score on Training Course 53040, *MSGP Routine Facility Inspections OJT*. Other participating groups may require training documentation pursuant to local procedures.

Personnel performing this procedure will be familiar with the most current version of the following procedure:

- [ENV-CP-QAPP-MSGP, Multi-Sector General Permit for Industrial Activities Program](#)

## 7.0 RECORDS

Conditions requiring corrective actions are contained within the CAR database. DEPs will retain documentation substantiating these conditions, corrective actions, and timelines reported in the CAR database (e.g., e-mails, FSRs, Work Orders, etc., as appropriate). These documents shall be made available to EPC-CP upon request.

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 21 of 31
	Revision: 3	Effective Date: 12/20/2018

## 8.0 DEFINITIONS AND ACRONYMS

See [LANL Definition of Terms](#).

### 8.1 Definitions

**Best Management Practice (BMP)**—Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of “waters of the United States.” BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. (40 CFR Part 122.2)

**Control Measure**—Any BMP or other method (including effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the United States.

**Numeric effluent limitation**—The degree of effluent reduction attainable by the application of the best practicable control technology currently available (see 40 CFR Part 443.12). For LANL, numeric effluent limitations apply only to the Asphalt Batch Plant (Sector D) (see Table 1-1 of the MSGP). Constituents with limitations for Sector D include Total Suspended Solids, pH, and oil and grease (see Table 8.D-2 of the MSGP).

**Note:** Exceedance of a numeric effluent limitation is a violation of the MSGP (see Part 4.1 of the MSGP).

**Non-numeric effluent limitations**—Per Part 2.1.2 of the MSGP, these include minimizing exposure, good housekeeping, maintenance, spill prevention and response, erosion and sediment controls, management of runoff, salt storage controls, employee training, elimination of non-stormwater discharges, and minimizing dust generation and vehicle tracking of industrial materials.

**Unauthorized release or discharge**—The release of any liquid or solid substance (within the boundary of an MSGP site) that is not an allowable non-stormwater discharge (see Section 5.6). Examples are hydraulic oil, gasoline, diesel, powdered concrete, concrete washout, steam condensate line leaks, etc.

**Impaired water quality exceedance**—Exceedance of a New Mexico water quality standard. These standards are specified in the New Mexico Administrative Code, Title 20, Chapter 6, Part 4, *Standards for Interstate and Intrastate Surface Waters*.

**Note:** Industrial stormwater discharges must be controlled as necessary to meet applicable water quality standards within the State of New Mexico (see Part 2.2.1 of the MSGP).

### 8.2 Acronyms

See LANL *Acronym Master List*.

BMP	Best Management Practice
CA	Corrective Action
CAR	Corrective Action Report
EPA	Environmental Protection Agency

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 22 of 31
	Revision: 3	Effective Date: 12/20/2018

EPC-CP	Environmental Protection and Compliance-Compliance Programs
DEP	Deployed Environmental Professional
DESH	Deployed Environmental, Safety and Health
ID	Identification
IM	Issues Management
IMC	Issues Management Coordinator
IRM	Issues Responsible Manager
IWD	Integrated Work Document
FOD	Facility Operations Director
FSR	Facility Service Request
HEY	Heavy Equipment Yard
LANL	Los Alamos National Laboratory
MSGP	Multi-Sector General Permit
N	No
NPDES	National Pollutant Discharge Elimination System
Ops	Operations
P	Procedure
PD	Program Description
QA	Quality Assurance
QP	Quality Procedure
SD	System Description
STO	Science and Technology Operations
SWPPP	Stormwater Pollution Prevention Plan
40 CFR	Title 40 of the Code of Federal Regulations
WMC	Waste Management Coordinator
Y	Yes

## 9.0 REFERENCES

- *Final National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Industrial Activities.* Federal Register: June 16, 2015, Volume 80, Number 115.
- [Unites States Environmental Protection Agency \(EPA\) National Pollutant Discharge Elimination System \(NPDES\) Multi-Sector General Permit For Stormwater Discharges Associated With Industrial Activity \(MSGP\)](#)
- [Los Alamos National Laboratory Storm Water BMP Manual](#)

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 23 of 31
	Revision: 3	Effective Date: 12/20/2018

- [PD100, DOE/NNSA Approved Los Alamos National Laboratory 10 CFR 857 Worker Safety and Health program Description](#)
- [SD100, Integrated Safety Management System](#)
- [P101-18, Procedure for Pause/Stop Work](#)
- [EPC-CP-QP-023, MSGP Routine Facility Inspections](#)

## **10.0 ATTACHMENTS**

**Attachment 1:** Screenshot Example of CAR Database

**Attachment 2:** Lists of Limited Values in the CAR Database

**Attachment 3:** Example New Corrective Action Finding Notification

**Attachment 4:** Example Weekly Notification of Outstanding Corrective Action Findings

**Attachment 5:** Example Outstanding Corrective Action Report

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 24 of 31
	Revision: 3	Effective Date: 12/20/2018

## Attachment 1 – Screenshot Example of CAR Database

Page 1 of 3

### Corrective Action Header tab

MSGP\_CORRECTIVEACTIONREPORT

Corrective Action Header    Corrective Action Details

**NPDES MSGP CORRECTIVE ACTION REPORT**      Id. Number : 1150      (Assigned by computer)

1    \* Name of Facility : TA-60-1 Heavy Equipment Yard      List

2    \* Date problem was identified : 05/19/2017 09:00      \* Date of Notification to EPC-CP : 05/19/2017 12:00      3

4    \* FOD Responsible for CA (Name & Org) : UI      Erickson Andrew W

5    Describe Specific Evaluation Location : Trench drain east of the high bay that drains to the oil water separ

6    \* Inspector Z-Number : 123456      Doe, Jane      EPC-CP

7    \* Person Identifying Condition Z-Number : 123456      Doe, Jane      EPC-CP

Date Format Must be entered as MM/DD/YYYY HH24:MI

8    Status: 1      A new corrective action ?      Annual Report ID (s):

9    Void Comments:     

\* required fields

10

Enter New Corrective Action      Back To Record Selection      Save      Cancel

Prev Rec.      Next Rec.      Print Summary



MSGP Corrective Actions	EPC-CP-QP-022	Page 25 of 31
	Revision: 3	Effective Date: 12/20/2018

## Attachment 1 – Screenshot Example of CAR Database (cont.)

Page 2 of 3

### Corrective Action Details tab

Action Edit Query Block Record Field Help Window

MSGP\_CORRECTIVEACTIONREPORT

Corrective Action Header Corrective Action Details

\*3. Identify the condition triggering the need for this review: If other, (describe here):

11 Control measures not properly operated or maintained List 12

\*4. Briefly describe the nature of problem identified: (e.g., Erosion problem identified during inspection).

13 The trench drain east of the high bay at TA-60 HEY that drains to an oil/water separator was not draining during a precipitation event. This is a repeat issue that was previously identified on 3/22/2017 (see CAR #1067), when discharge resulted in an oily sheen at SIO 025.

\*6. How problem was identified: If other, (describe here):

14 Other (describe) : List 15 During monitoring after a storm event

\*7. Description of corrective action taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications, repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, basis for that determination:

16 On 05/19/2017, HEY personnel pumped water from the trench drain into storage tanks to prevent overflow and release and removed sediment from the trench drain and placed into drums. An on-site supervisor submitted FSR to unclog the line was submitted. Documentation of actual maintenance done on the trench drain and oil/water separator is required to close this corrective action. Additional controls may need to be implemented.

17 8. Was the problem identified at an outfall that is Substantially Identical? Yes/No : Y

18 9. Which SIO Affected? 021, 023, 024, and 025

19 10. If yes, provide documentation of how corrective action taken is appropriate for all related SIOs:

5/19/2017: Temporarily pumping water will prevent discharge from reaching the SIOs. 6/5/2017: Unclogging the trench drain and maintenance on the oil/water separator will prevent unauthorized discharges such as oil.

20 \* 11. Did/will this corrective action require modification of your SWPPP ? Yes/No : Y

21 \* 12. Date corrective action initiated (MM/DD/YYYY HH24:MI): 05/19/2017 14:00 OR expected completion :

22 \* 13. Date corrective action completed (MM/DD/YYYY HH24:MI): 06/05/2017 16:00

23 14. If corrective action is not or will not be completed within 14 days of discovery, describe any remaining steps and the formal schedule necessary to complete the corrective action:

MSS and subcontractor are scheduled for 06/05/2017 AM to unclog trench drain and perform maintenance on the oil/water separator. Schedule exceeded 14 days due to no standing maintenance contract on the oil/water separator being in place. Standing maintenance contract is now in place.

24 15. Date EPA Notified of Intent to Exceed 45 Days (MM/DD/YYYY HH24:MI):

\* required fields

List Values Prev Rec. Next Rec. BackToRecordSelection 25 Save Cancel



<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 26 of 31
	Revision: 3	Effective Date: 12/20/2018

### **Attachment 1 – Screenshot Example of CAR Database (cont.)**

Page 3 of 3

#### **Full Text for Item 16: Description of Corrective Action Taken or to be Taken**

On 05/19/2017, HEY personnel pumped water from the trench drain into storage tanks to prevent overflow and release. Sediment was also removed from the trench drain and placed into drums. An on-site supervisor submitted an FSR to unclog the line. Documentation of actual maintenance done on the trench drain and oil/water separator is required to close this corrective action. Additional controls may need to be implemented until maintenance is complete to ensure that oil is not discharged into the drainage channel north of the site. In addition, the SWPPP must be modified to identify the preventative maintenance schedule and include the procedure for conducting it. On 05/30/2017, the SWPPP was modified to include a quarterly maintenance schedule and a procedure for routine maintenance on the oil/water separator. On 06/05/2017, MSS jet-routed the drain to remove the clog and a subcontractor performed maintenance on the oil/water separator.

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 27 of 31
	Revision: 3	Effective Date: 12/20/2018

## Attachment 2 – Lists of Limited Values in the CAR Database

Page 1 of 2

**Name of Facility (*Item 1 on Attachment 1 Screenshot*)**

Valid MSGP Facilities

Find:

Msgp_Facility_Desc
TA-14-23 OBOD
TA-15-185 PHERMEX
TA-15-313 Machine Shop
TA-16-0388 Burning Ground
TA-16-0399 Burning Ground
TA-22-52 Machine Shop
TA-3-22 Power & Steam Plant
TA-3-30 Warehouse
TA-3-32 Metal Shop
TA-3-34 Metal Shop
TA-3-38 Carpenter Shop
TA-3-38 Metals Fab. Shop
TA-3-39 & 102 Metal Shop
TA-3-66 Sigma Facility
TA-33-113 Machine Shop
TA-33-39 Machine Shop
TA-35-125 Machine Shop
TA-35-2 Machine Shop
TA-36-8 Minie
TA-39-57 OBOD
TA-39-6 OBOD
TA-46-31 Machine Shop
TA-46-77 Machine Shop
TA-48-8 Machine Shop
TA-50-37 WCRRF
TA-50-54 Metal Shop
TA-50-69 WCRRF
TA-53-16 Machine Shop
TA-53-18 Machine Shop
TA-53-2 Machine Shop
TA-53-22 Machine Shop
TA-53-26 Machine Shop
TA-53-39 Shop and Storage Building
TA-54 Area G
TA-54 Area L
TA-54 Maintenance Facility W
TA-54 RANT
TA-55 Plutonium Facility
TA-55-314 Warehouse
TA-60 Asphalt Batch Plant
TA-60 MRF
TA-60 Roads and Grounds
TA-60-1 Heavy Equipment Yard
TA-60-2 Warehouse
TA-63 Transuranic Waste Facility
TA-9-28 Heavy Equipment Maintenance Operations Facility

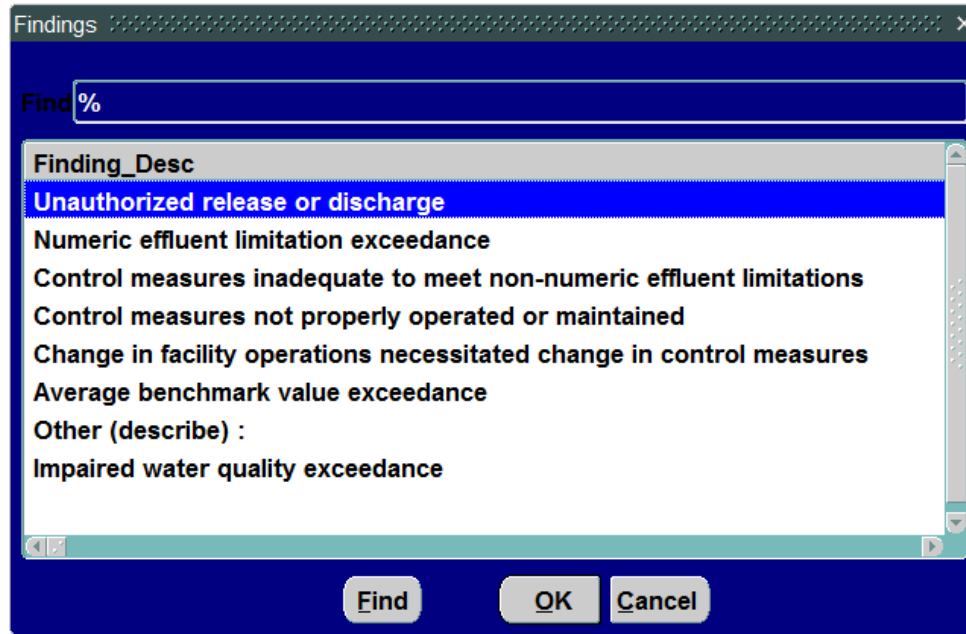
Find OK Cancel

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 28 of 31
	Revision: 3	Effective Date: 12/20/2018

## Attachment 2 – Lists of Limited Values in the CAR Database (cont.)

Page 2 of 2

### Finding Description/Condition Triggering Need for Review (*Item 11 on Attachment 1 Screenshot*)

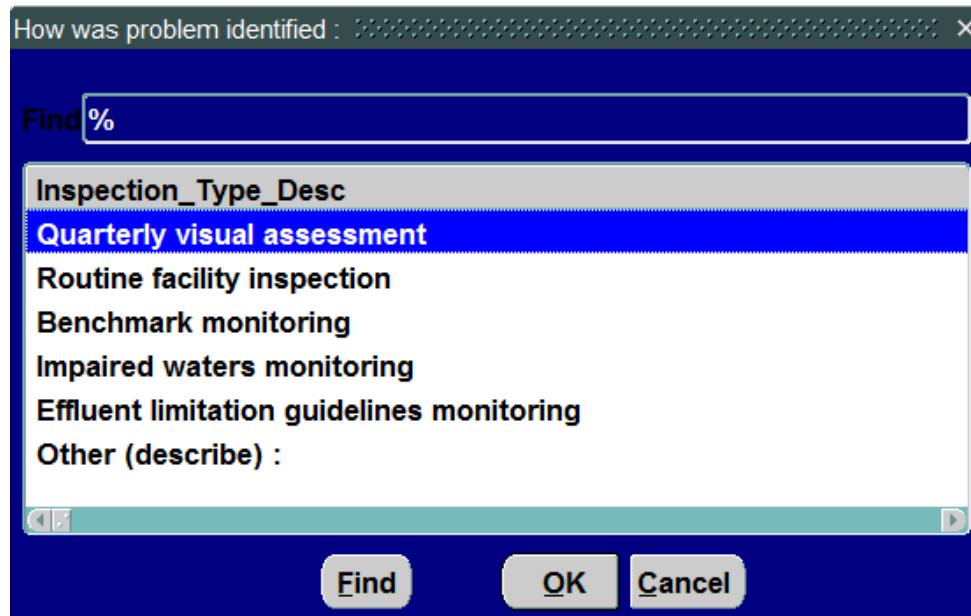


The 'Findings' dialog box has a title bar with 'Findings' and a close button. It contains a search field labeled 'Find %' with a '%' symbol. Below the search field is a list box titled 'Finding\_Desc'. The list contains the following items:

- Unauthorized release or discharge** (highlighted in blue)
- Numeric effluent limitation exceedance
- 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) :
- Impaired water quality exceedance

At the bottom of the dialog box are three buttons: 'Find', 'OK', and 'Cancel'.

### Inspection Type/How Problem was Identified (*Item 14 on Attachment 1 Screenshot*)



The 'How was problem identified' dialog box has a title bar with 'How was problem identified :' and a close button. It contains a search field labeled 'Find %' with a '%' symbol. Below the search field is a list box titled 'Inspection\_Type\_Desc'. The list contains the following items:

- Quarterly visual assessment** (highlighted in blue)
- Routine facility inspection
- Benchmark monitoring
- Impaired waters monitoring
- Effluent limitation guidelines monitoring
- Other (describe) :

At the bottom of the dialog box are three buttons: 'Find', 'OK', and 'Cancel'.

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 29 of 31
	Revision: 3	Effective Date: 12/20/2018

## Attachment 3 – Example New Corrective Action Finding Notification

Page 1 of 1

**From:** MSGPCorrectiveActionDB@esp-esh-as01.lanl.gov [mailto:MSGPCorrectiveActionDB@esp-esh-as01.lanl.gov]

**Sent:** Friday, January 19, 2018 10:00 PM

**To:**

**Cc:**

**Subject:** New Corrective Action finding relative to the NPDES MSGP Program

This email is generated automatically by the National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP) Corrective Action Report (CAR) database to provide notification of discovery of a new condition requiring corrective action. As the recipient of this notification, you are responsible for immediately taking all reasonable steps necessary to minimize or prevent the discharge of pollutants until a permanent solution is installed and made operational.

“Immediately” requires initial action on the same day a condition is found. However, if a problem is identified at a time in the work day when it is too late to initiate corrective action (after 2 P.M.), the initiation must begin no later than the following work day.

Documentation of newly identified conditions requiring corrective action must occur within 24 hours of discovery, evidenced by entry into the CAR database.

At TA-50-37 WCRRF on 01/17/18, a condition requiring a corrective action was observed and a corrective action report was generated per the 2015 Multi-Sector General Permit requirements for stormwater controls at industrial sites. The condition(s) requiring a corrective action(s) is/are listed below.

CA#: 1296 located at TA-50-37 WCRRF.

**Person Identifying Condition:** DOE JANE

**Description of finding:** Unauthorized release or discharge

**Condition requiring corrective action:** Forklift was leaking hydraulic fluid

**Description of the corrective action taken or to be taken to eliminate the condition or further investigation:** On 1/17/2018 prior to the start of work the operator noticed the forklift was leaking hydraulic fluid from the line to the mast. Approximately 4 to 6 oz leaked onto the asphalt. The Operation Center was notified and the WMC and ENV. The Nuc Operators placed spill pads under the leak. FSR#182723 was entered to repair forklift and apply microblaze. At 1702 MSS personnel applied micro blaze to the spill. On 1/18/2018 the WMC collected all spill pads and managed them accordingly.

**Status:** The corrective action was initiated on 01/17/2018 and was completed on 01/17/2018.

Click [HERE](#) to access the list of MSGP corrective action(s) not yet completed for EWMO.

Click [HERE](#) to access the list of all MSGP corrective action(s) not yet completed.

The ESH Deployed Environmental Professional (DEP) assigned to your organization/area is (are) Jane Doe.

The color legend on the linked reports corresponds to the following schedule for corrective action completion as required by the 2015 MSGP:

**You must complete the corrective action within 14 calendar days of discovery.**

If completion of final corrective actions within 14 days is not feasible, the reason(s) must be documented and a description of steps required and formal schedule for completion, which must be done as soon as practicable after the 14-day timeframe, but not longer than 45 days after discovery. The reasons, steps and schedule for completion must be entered into the CAR database.

If the completion of corrective action will exceed the 45-day timeframe, you must take the **minimum** additional time necessary, provided that you notify Region 6 of the Environmental Protection Agency:

- **of your intent to exceed 45 days,**
- **your rationale for an extension, and**
- **a completion date.**

To assist the preparation of this notification, as a responsible individual, you must contact the EPC-CP Project Lead at 667-1312 for any corrective action that remains open 35 days or more, and provide a formal status of the progress for each corrective action. By day 40, the DEP must provide the EPC-CP Project Lead the rationale for potentially exceeding the required 45-day timeframe and a proposed completion date for each associated corrective action. The DEP must also amend the rationale and completion date in the CAR database.

**An extension request must be submitted to Region 6 of the U.S. Environmental Protection Agency by EPC-CP personnel prior to day 45 for final corrective actions not completed or estimated to be completed within 45 days of discovery.**

**The responsible individual must ensure compliance with the proposed completion schedule.**

**These intervals are not considered grace periods, but are defined schedules to ensure the conditions requiring corrective action do not persist indefinitely.**

Where corrective actions result in changes to controls or any procedures documented in the facility's Storm Water Pollution Prevention Plan (SWPPP), the DEP must modify the SWPPP accordingly within 14 calendar days of completing corrective action work.



<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 30 of 31
	Revision: 3	Effective Date: 12/20/2018

## Attachment 4 – Example Weekly Notification of Outstanding Corrective Action Findings

Page 1 of 1

**From:** MSGPCorrectiveActionDB@esp-esh-as01.lanl.gov [mailto:MSGPCorrectiveActionDB@esp-esh-as01.lanl.gov]

**Sent:** Monday, January 01, 2018 10:00 PM

**To:**

**Cc:**

**Subject:** Weekly Notification of Outstanding NPDES MSGP Corrective Action finding(s)

This email is generated automatically by the National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP) Corrective Action Report (CAR) database to provide notification of discovery of a new condition requiring corrective action. As the recipient of this notification, you are responsible for immediately taking all reasonable steps necessary to minimize or prevent the discharge of pollutants until a permanent solution is installed and made operational.

“Immediately” requires initial action on the same day a condition is found. However, if a problem is identified at a time in the work day when it is too late to initiate corrective action (after 2 P.M.), the initiation must begin no later than the following work day.

Documentation of newly identified conditions requiring corrective action must occur within 24 hours of discovery, evidenced by entry into the CAR database.

At TA-3-38 Carpenter Shop , 1 total MSGP stormwater corrective action(s) has (have) not been completed.

At TA-3-38 Metals Fab. Shop , 1 total MSGP stormwater corrective action(s) has (have) not been completed.

At TA-60-1 Heavy Equipment Yard , 7 total MSGP stormwater corrective action(s) has (have) not been completed.

At TA-60-2 Warehouse , 4 total MSGP stormwater corrective action(s) has (have) not been completed.

Click [HERE](#) to access the list of MSGP corrective action(s) not yet completed for UI.

Click [HERE](#) to access the list of all MSGP corrective action(s) not yet completed.

The ESH Deployed Environmental Professional (DEP) assigned to your organization/area is (are) Jane Doe :John Doe.

The color legend on the linked reports corresponds to the following schedule for corrective action completion as required by the 2015 MSGP:

**You must complete the corrective action within 14 calendar days of discovery.**

If completion of final corrective actions within 14 days is not feasible, the reason(s) must be documented and a description of steps required and formal schedule for completion, which must be done as soon as practicable after the 14-day timeframe, but not longer than 45 days after discovery. The reasons, steps and schedule for completion must be entered into the CAR database.

If the completion of corrective action will exceed the 45-day timeframe, you must take the **minimum** additional time necessary, provided that you notify Region 6 of the Environmental Protection Agency:

- **of your intent to exceed 45 days,**
- **your rationale for an extension, and**
- **a completion date.**

To assist the preparation of this notification, as a responsible individual, you must contact the EPC-CP Project Lead at 667-1312 for any corrective action that remains open 35 days or more, and provide a formal status of the progress for each corrective action. By day 40, the DEP must provide the EPC-CP Project Lead the rationale for potentially exceeding the required 45-day timeframe and a proposed completion date for each associated corrective action. The DEP must also amend the rationale and completion date in the CAR database.

**An extension request must be submitted to Region 6 of the U.S. Environmental Protection Agency by EPC-CP personnel prior to day 45 for final corrective actions not completed or estimated to be completed within 45 days of discovery.**

**The responsible individual must ensure compliance with the proposed completion schedule.**

These intervals are not considered grace periods, but are defined schedules to ensure the conditions requiring corrective action do not persist indefinitely.

Where corrective actions result in changes to controls or any procedures documented in the facility's Storm Water Pollution Prevention Plan (SWPPP), the DEP must modify the SWPPP accordingly within 14 calendar days of completing corrective action work.

<b>MSGP Corrective Actions</b>	EPC-CP-QP-022	Page 31 of 31
	Revision: 3	Effective Date: 12/20/2018

## Attachment 5 – Example Outstanding Corrective Action Report

Page 1 of 1



EPC-CP MultiSector General Permit (MSGP)  
Corrective Action Report Findings  
Final Corrective Actions Not Yet Complete (as of 02/01/2018 )

FOD	RAD	MSGP Facility	CA#	Person Identifying Condition	Date Problem Identified	Corrective Action Initiated Date	Days to Take Action	Projected Completion Date	Projected Days until Completion	Days Open (since Discovery)	EPA Notified of Intent to Exceed 45 Days	Problem Description
UI	DOE JOHN	TA-3-38 Carpenter Shop	1298	DOE JANE	01/31/18		!	02/02/18	1	1		Tarp was totally torn off of the stack of metal posts at the southwest corner of the storage yard.
	DOE JOHN	TA-3-38 Metals Fab. Shop	1299	DOE JANE	01/31/18		!	02/02/18	1	1		A pile of gravel (from a torn gravel bag) is directly east of the trench drain.
Total Findings:											2	

Legend

!	Action must be taken and documented in CAR.	3	Indicates immediate action was not taken (i.e., <=2 days of discovery)
	Within 14 days of discovery		Between 35 and 44 days of discovery
	Between 15 and 34 days of discovery		45 days of discovery or greater

**Attachment 18: EPC-CP-QP-2105, *MSGP STORMWATER VISUAL ASSESSMENTS***



EPC-CP-QP-2105

Revision: 1



Effective Date: 09/08/2021

Next Review Date: 09/08/2024

**Environment, Safety, Health, Quality, Safeguards, and Security Directorate**  
**Environmental Protection and Compliance – Compliance Programs Group**  
**Quality Procedure**

## MSGP Stormwater Visual Assessments

**Hazard Grading:** ☒ Low ☐ Moderate ☐ High/Complex

**Usage Level:** ☒ Reference ☐ UET ☐ Mixed: UET Sections: \_\_\_\_\_

**Status:** ☐ New ☒ Major Revision ☒ Minor Revision

☐ Review w/No Changes ☐ Other: \_\_\_\_\_

**Safety Basis:** ☒ N/A ☐ USQ ☐ USI Number: \_\_\_\_\_

### Document Author/Subject Matter Expert:

Name:	Organization:	Signature:	Date:
Holly L. Wheeler	EPC-CP	Signature on File	08-30-21

**Derivative Classifier:** ☒ Unclassified or ☐ \_\_\_\_\_

Name:	Organization:	Signature:	Date:
Steven E. Wolfel	EPC-CP	Signature on File	08-31-21

### Approval Signatures:

EPC-CP Reviewer:	Organization:	Signature:	Date:
Alethea Banar	EPC-CP	Signature on File	08-31-21
EPC-CP RLM:	Organization:	Signature:	Date:
Terrill W. Lemke, Team Leader	EPC-CP	Signature on File	09-07-21
EPC-CP RLM:	Organization:	Signature:	Date:
Taunia J. Sandquist, Group Leader	EPC-CP	Signature on File	09-08-21

*This copy is uncontrolled.*  
*Users are responsible for ensuring they work to the latest approved version.*  
*To document a required read, Login to [UTrain](#), and go to the Advanced Search.*

<b>MSGP Stormwater Visual Assessments</b>	No: EPC-CP-QP-2105	Page 2 of 19
	Revision: 1	Effective Date: 09/08/2021

#### REVISION HISTORY

<b>Document Number and Revision</b>	<b>Effective Date</b>	<b>Effective Date</b>
ENV-RCRA-QP-064, R0	7/09	New document <i>MSGP Storm Water Visual Inspections</i> .
ENV-RCRA -QP-064, R1	3/10	Clarifications and added attachments.
ENV-RCRA -QP-064, R2	2/12	Biennial review/revision
EPC-CP-QP-064, R0	10/04/2017	This document replaces ENV-RCRA-QP-064 R2. Converted into new format, and new organization name, clarified steps, updated attachments.
EPC-CP-QP-064, R1	10/09/2018	Removed requirement to conduct visual assessment on filtered samples. Updated form to match text.
EPC-CP-QP-2105, R0	05/12/20	Supersedes EPC-CP-QP-064, R1. Reformat to new EPC-CP template. Re-number procedure and forms to new EPC-CP procedure numbering system.
EPC-CP-QP-2105, R1	09/08/2021	This document supersedes EPC-CP-QP-2105, R0. Updated LANL logo, changed "memorandum" to "cover sheet," changed "modified sampling quarters" to "MSGP monitoring quarters," "best management practice" to "stormwater control measure," and updated facility types and permit section reference to match new permit.

<b>MSGP Stormwater Visual Assessments</b>	No: EPC-CP-QP-2105	Page 3 of 19
	Revision: 1	Effective Date: 09/08/2021

## Table of Contents

Revision History .....	2
1.0 Introduction .....	4
1.1 Purpose .....	4
1.2 Scope .....	4
1.3 Applicability .....	4
2.0 Precautions and Limitations .....	5
2.1 Precautions.....	5
2.2 Limitations.....	5
3.0 Prerequisite Actions.....	5
3.1 Planning and Coordination.....	5
3.2 Special Tools, Equipment, Parts, and Supplies.....	6
4.0 Visually Assessing Stormwater .....	7
4.1 Documenting Sample Information .....	7
4.2 Assessing Parameters .....	8
4.3 Completing the Visual Assessment Form.....	10
4.4 Completing the Certification Statement .....	11
5.0 Training .....	11
6.0 Records .....	12
7.0 Definitions and Acronyms.....	12
7.1 Definitions .....	12
7.2 Acronyms.....	13
8.0 References .....	13
9.0 Attachments .....	13
Attachment 1: Screenshot Examples of EPC-CP-QP-2105 R1 Form 1.....	14
Attachment 2: EPC-CP-QP-2105 R1 Form 1, MSGP Visual Assessment Hard Copy Example .....	18

<b>MSGP Stormwater Visual Assessments</b>	No: EPC-CP-QP-2105	Page 4 of 19
	Revision: 1	Effective Date: 09/08/2021

## 1.0 INTRODUCTION

Los Alamos National Laboratory (LANL) through Environmental Protection and Compliance – Compliance Programs (EPC-CP) conducts stormwater monitoring activities required pursuant to the National Pollutant Discharge Elimination System (NPDES), Multi-Sector General Permit (MSGP). The MSGP requires LANL to monitor stormwater runoff from industrial sites relative to potential pollutants.

### 1.1 Purpose

This procedure describes the process for conducting visual assessments of stormwater from permitted outfall locations where LANL conducts stormwater monitoring activities for compliance under the MSGP.

### 1.2 Scope

Requirements set forth in this document apply to active LANL industrial facilities covered by the MSGP. These facilities include, a warehouse, several metal fabrication areas/shops, a heavy equipment yard, an asphalt batch plant, roads and grounds, and a material recycling facility. Inspection waivers may be granted by EPC-CP for adverse weather conditions and unstaffed or inactive sites.

At least once each MSGP monitoring quarter, an unfiltered stormwater sample is collected from each discharge point covered by the MSGP and identified in the site-specific Stormwater Pollution Prevention Plan (SWPPP). The sample must be visually inspected for water quality characteristics. Stormwater samples are collected with an automated sampler, single-stage sampler, or by taking a grab sample. Visual assessments are **not** performed on filtered stormwater.

Visual assessments conducted under this procedure are documented using the Maintenance Connection Express™ (MC Express) web application on a tablet or notebook style computer. In the event of electronic hardware or web application failure, personnel may use a printed hard copy to document the work.

### 1.3 Applicability

This procedure applies to the EPC-CP technical staff and subcontractor personnel (as applicable) who conduct stormwater visual assessments during or after measurable storm events at MSGP outfalls.

A measurable storm event is identified in Part 4.1.3 of the MSGP as one that results in an actual discharge from the site that follows the preceding measurable storm event by at least 72 hours (three days).

<b>MSGP Stormwater Visual Assessments</b>	No: EPC-CP-QP-2105	Page 5 of 19
	Revision: 1	Effective Date: 09/08/2021

## 2.0 PRECAUTIONS AND LIMITATIONS

### 2.1 Precautions

The hazard level for the activities described in this procedure is **LOW**, therefore an Integrated Work Document (IWD) Part I is not required. If required by a Facility Operations Division (FOD), an IWD Part II (2101 Form) will address any site-specific requirements and training for the FOD.

Personnel will wear appropriate clothing (e.g., boots, long pants, etc.) to perform work in the field.

Work may be discontinued during periods or conditions that make sites dangerous for worker safety or prevent personnel from safely accessing sites (e.g., weather-related events such as flash floods, flooding, lightning, wildfires, hail, icy roads, deep snow, or LANL operations such as firing shots or open burns).

If conditions prevent fieldwork, document these conditions on the work order. Multiple attempts can be documented on the original form. If the target date cannot be met, field personnel will contact the Program Lead no less than 24 hours before the target date for guidance.

### 2.2 Limitations

In MC Express, document responses to each question on a work order by clicking the expand arrow located on the right side of the task line and changing the “Complete” or “Failed” line to “Yes.” When using a hard copy form, mark the appropriate check box.

Throughout this process, field personnel will document comments and notations in the “Reading” field of the associated task line. Additional comments not documented in a “Reading” field can be entered in the “Comments” field of the same task line. If field personnel need more space, additional comments can be entered in the “Labor Report Update” field (see Section 4.3) when the work order is updated to “Complete” status. When using a hard copy form, document comments on the corresponding task line. If additional space is needed, comments can be entered in the “Labor Report” section at the bottom of the form.

Some terminology varies between the MC Express software and the Maintenance Connection (MC) desktop software.

- The “Reading” field in MC Express is the same field as “Reading Final” in MC desktop and “Meas.” on a hard copy (printed) work order.
- The “Complete” option in MC Express is the same as a “Yes” answer. The “Failed” option in MC Express is the same as a “No” answer. MC desktop and hard copy (printed) work orders use “Yes” and “No” terminology.

## 3.0 PREREQUISITE ACTIONS

### 3.1 Planning and Coordination

1. Schedule work to be completed by the target date appearing on the work order(s) or as requested by the MSGP Program Lead if a work order is not issued.

<b>MSGP Stormwater Visual Assessments</b>	No: EPC-CP-QP-2105	Page 6 of 19
	Revision: 1	Effective Date: 09/08/2021

2. As specified in the IWD Part II (if applicable), inform (e.g., by e-mail) facility contacts and/or the Deployed Environmental Professional (DEP) of the schedule for work and locations up to a week (preferred) before but no later than the day before (for minor changes) so work is added to the appropriate plan of the day.
3. Gather the required equipment (see Section 3.2) for the work to be done.
4. Using the Safari or Chrome web browser on a tablet or notebook style computer, log into the MC Express application (<http://express.maintenanceconnection.com>) and confirm that the work order list displayed matches your sites. If the work order lists do not match, contact EPC-CP Data Management personnel for clarification.
5. In MC Express, click on the appropriate work order number to open the work order. The work order will open in the display to the Work Order Summary page.
6. Click on the “Tasks” bar to navigate to the work order Tasks page. See MC Express screen shot examples in Attachment 1.
7. Always log out of MC Express when you have finished work OR work is interrupted.

### **3.2 Special Tools, Equipment, Parts, and Supplies**

Ensure the following equipment is available in the field vehicle:

- Safety glasses
- Nitrile gloves
- Sturdy hiking boots or steel toed shoes with soles that grip
- Other facility specific personal protective equipment as required by the FOD
- Cell phone (only government cell phones are allowed in secure areas) (See <https://int.lanl.gov/policy/documents/P217.pdf> for requirements for using portable electronic devices on Laboratory property.)
- Current copy of this procedure
- Current copy of the IWD(s) Part II (as needed)
- Site map(s) (as needed)
- Current electronic work order or paper inspection form
- EPC-CP MSGP Sampling and Analysis Plan (SAP) most recent revision for the current monitoring year OR program specific monitoring plan
- Government issued electronic tablet with Safari web browser and Blackberry UEM™ app. (See <https://int.lanl.gov/policy/documents/P217.pdf> for requirements for using portable electronic devices on Laboratory property.)
- Necessary access and station keys

<b>MSGP Stormwater Visual Assessments</b>	No: EPC-CP-QP-2105	Page 7 of 19
	Revision: 1	Effective Date: 09/08/2021

- Access to accurate time measurement
- Clean replacement sample bottles (clear glass or clear poly)
- Paper towels

#### 4.0 VISUALLY ASSESSING STORMWATER

Stormwater visual assessments are determined at a sampling station based on the current year SAP. See Attachment 1 for screen shot examples of EPC-CP-QP-2105 R1 Form 1, *MSGP Visual Assessment*, in MC Express. See Attachment 2 for an example of the form in hard copy format.

**NOTE:** Each item number listed in red below corresponds to a red numbered box on both screenshots and hard copy format.

#### 4.1 Documenting Sample Information

- [1] Take the sample bottle with water out of the automated sampler or single stage jar off the ground or fill a clear sample bottle with a grab sample and wipe off exterior.
  - [a] Grab samples are collected during daylight hours in a wide-mouth clear glass or plastic container within 30 minutes of discharge from a storm event.
- [2] **ITEM 1:** Document the monitoring period by entering Jan-Mar, Apr-Jun, Jul-Sep, or Oct-Dec.
  - [a] IF the stormwater discharge collected is from a rain event from the previous monitoring period and the visual assessment is made in the following monitoring period,  
THEN document monitoring period on the inspection to correspond to the period in which the rain event took place.
- [3] **ITEM 2:** Check the date and time stormwater discharge began and document by entering the date in the following formats: MM/DD/YY or MM-DD-YY. Time must be entered in 24-hour format.
  - [a] IF the discharge date/time is not available (e.g., precipitation report) when the visual is performed in the field,  
THEN leave this Task Line incomplete and complete when the information is available.
- [4] **ITEM 3:** Check the date and time the sample was collected and document by entering the date in the following formats: MM/DD/YY or MM-DD-YY. Time must be entered in 24-hour format.
  - [a] IF the collection date/time is not available (e.g., precipitation report) when the visual is performed in the field,  
THEN leave this Task Line incomplete and complete when the information is available.



<b>MSGP Stormwater Visual Assessments</b>	No: EPC-CP-QP-2105	Page 8 of 19
	Revision: 1	Effective Date: 09/08/2021

- [5] **ITEM 4:** Check the date and time stormwater was visually assessed and document by entering the date in the following formats: MM/DD/YY or MM-DD-YY. Time must be entered in 24-hour format.
- [6] **ITEM 5:** Describe the nature of the discharge (e.g., rain, snowmelt, hail) and the TOTAL amount of precipitation in inches from the event.
  - [a] IF the total amount of precipitation is not available (e.g., precipitation report) when the visual is performed in the field,  
THEN leave this Task Line incomplete and complete when the information is available.
- [7] **ITEM 6:** Check that the sample was collected in the first 30 minutes of discharge and document.
  - [a] IF it is not possible to collect the sample within the first 30 minutes of discharge,  
THEN the sample must be collected as soon as practicable after the first 30 minutes.
  - [b] The field inspector will document the reason a sample could not be collected within the first 30 minutes (e.g., lightning hazard, flooding).

## 4.2 Assessing Parameters

While conducting the visual assessment, personnel will attempt to relate any evidence of stormwater pollution that is observed in the sample to a pollutant source on the site. A cleanup of the site can be conducted if the pollutant source is known and well defined. Refer to EPC-CP-QP-2109, *MSGP Corrective Actions*, for specific steps to document, track, and report conditions of potential stormwater pollution.

- [1] **ITEM 7:** Observe the color of the discharge in the sample container. Document by describing the color.
- [2] **ITEM 8:** Observe any odors detected from the sample. Document by describing the odor (e.g., musty, sewage, sulfur, sour, solvents, petroleum/gas).
- [3] **ITEM 9:** Observe the clarity of the discharge. Document by describing the clarity (e.g., slightly cloudy, cloudy, opaque).
 

**NOTE 1:** Clarity is described as the depth in which you can look into or through water. For example, an individual can see through a clear glass of clean water in daylight. Generally, the clarity of the water is a good visual indicator of the purity of water. If the water is poor in clarity there is most likely suspended solids throughout the water.
- [4] **ITEM 10:** Observe any floating solids in the discharge. Document by describing the floating solids.

<b>MSGP Stormwater Visual Assessments</b>	No: EPC-CP-QP-2105	Page 9 of 19
	Revision: 1	Effective Date: 09/08/2021

**NOTE 2:** Careful examination will determine whether the solids are raw materials (e.g., product used to fabricate something, or ingredients used in a formulation) or waste materials (e.g., shavings, woodchips and sawdust, trash).

- [5] **ITEM 11:** Observe any settled solids in the sample. Document by describing the settled solids (e.g., sediment, vegetation, fine, coarse).

**NOTE 3:** Settled solids may be an indicator of unstable ground cover combined with a high-intensity stormwater runoff event.

- [6] **ITEM 12:** Observe any suspended solids in the sample. Document by describing the suspended solids (e.g., vegetation, ash, sediment, fine, coarse).

**NOTE 4:** Most often suspended solids include fine sediment. This may be an indication of an unstable channel with eroding banks. Some water may appear to be colored because of relatively fine particulate material in suspension such as sediment.

- [7] **ITEM 13:** Check to see whether the sample is free of foam. Gently shake the sample container. Document by describing any bubbles in or on the surface of the water and the color of the foam.

[a] IF it is determined that foam is caused by a pollutant,  
THEN complete the visual assessment and contact the EPC-CP MSGP Program Lead **immediately following completion of the visual assessment.**

[b] Follow-up action is required within 24 hours (see EPC-CP-QP-2109).

- [8] **ITEM 14:** Check to see whether the sample is devoid of any oil sheen. Document by describing the thickness and consistency (e.g., flecks, globs).

[a] IF an oil sheen is present,  
THEN contact the EPC-CP MSGP Program Lead **immediately following completion of the visual assessment.**

[b] Document in the Labor Report (**ITEM 17**) the source of the oil sheen, if existing stormwater control measures (SCMs) are effective in mitigation of potential pollutants, and if a new SCM needs to be installed.

[c] Follow-up action is required within 24 hours (see EPC-CP-QP-2109).

- [9] **ITEM 15:** Check to see whether the discharge is free of any other indicators of stormwater pollution not described in any other task line above.

- [10] IF there are any potential sources of pollutants observed on site,  
THEN document the following and contact the EPC-CP MSGP Program Lead within 24 hours of identification:

- Potential sources;

<b>MSGP Stormwater Visual Assessments</b>	No: EPC-CP-QP-2105	Page 10 of 19
	Revision: 1	Effective Date: 09/08/2021



- Indicate if there are SCMs on site;
- Evaluate whether the SCMs are working correctly or need maintenance;
- Evaluate whether implementation of additional SCMs are needed to address the observed contaminant.

[11] Contact the FOD, DEP, and EPC-CP MSGP representative to inform them of the situation.

**NOTE 5:** Refer to EPC-CP-QP-2109, *MSGP Corrective Actions*, for specific steps to document, track, and report conditions of potential stormwater pollution.

[12] After all task lines have been completed, make sure you have clicked the “Save” bar at the bottom of the page.

#### 4.3 Completing the Visual Assessment Form

- [1] Ensure the inspection form has been filled out completely including information not available during the field inspection (e.g., date/time of discharge, date/time of sample collection, total precipitation amount).
- [2] Click the “Back” arrow button  in the upper left-hand corner to exit the work order Tasks page and return to the Work Order Summary page.
- [3] Click the checkered flag  in the upper right corner of the Work Order Summary page to open the Work Order Status Update page. MC Express auto-populates the date and time fields.

#### **CAUTION**

MC Express automatically changes the work order status to “Closed.”

- [4] **ITEM 16:** Click on the expand arrow located on the right side of the “New Status” field and select “Completed” from the available dropdown menu.
- [a] Ensure the auto-populated date and time is the date and time that the **work was completed** and **not the date/time the form was filled out**.
- [b] IF work is performed over multiple days,  
THEN note the date and time the work began in the Labor Report field.
- [c] To update the date or time, click the “Date” field and make necessary adjustments using the available timestamp application. Click “Set” to apply changes.
- [d] IF using a hard copy form,  
THEN write the date and time the work was completed.

<b>MSGP Stormwater Visual Assessments</b>	No: EPC-CP-QP-2105	Page 11 of 19
	Revision: 1	Effective Date: 09/08/2021

- [5] **ITEM 17:** The field personnel must type or write his/her name in the “Labor Report Update” field.
- [6] Any additional notes, observations, or site conditions not documented in a task line “Reading” or “Comments” field can be documented in the “Labor Report Update” field.
- [7] Scroll down the page to the “Signature” bar and click the expand arrow on the left side of the bar to open the “Signature” field.
  - [a] **ITEM 18:** Capture an electronic signature by drawing with a finger on the tablet screen. The Lead Inspector is certifying that the information submitted is “true, accurate, and complete” by electronically signing the work order.  
**NOTE:** The mouse must be used to sign electronically when using MC Express on a desktop screen (not a tablet).
  - [b] If using a hard copy form, the field personnel will sign his/her name and the date of when the form was signed.
  - [c] By signing either electronically or on hard copy, the field personnel is certifying that the information submitted is “true, accurate, and complete.”
- [8] Click on the “Save” bar at the bottom of the page to close the “Signature” field.

#### 4.4 Completing the Certification Statement

The EPC-CP MSGP Program Lead or designee will send completed visual assessment forms to the DEPs at the end of each quarter that will contain a certification statement in the cover sheet. The duly authorized signatory may sign and date this certification statement rather than the certification line associated with each attached form. However, the cover sheet and associated completed forms must remain together.

#### 5.0 TRAINING

All EPC-CP personnel that execute the activities specified in this procedure must meet the minimum qualification and training requirements for their position as identified EPC-CP-PIP-2101, *NPDES Multi-Sector General Permit Program Implementation Plan*. This will include “self-study” (required reading), recurring annually, for this procedure as assigned and documented in the LANL UTrain system. Other participating LANL groups may require training to local procedures and document completion of training.

Contract personnel that execute the activities specified in this procedure will be qualified and trained as required by the Exhibit D and Exhibit F. In addition, contract personnel are required to complete “self-study” (required reading) of this procedure.

<b>MSGP Stormwater Visual Assessments</b>	No: EPC-CP-QP-2105	Page 12 of 19
	Revision: 1	Effective Date: 09/08/2021

## 6.0 RECORDS

MSGP Visual Assessment forms are signed and certified by individual LANL facilities. These completed forms are maintained in the facility's SWPPP and managed by the facility's document management system. The MSGP team may retain a copy for reference purposes.

Below are records generated as a result of implementing this procedure that are identified by title and type.

Record Title	QA Record	Non-QA Record
EPC-CP-QP-2105 R1 Form-1, <i>MSGP Visual Assessment</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## 7.0 DEFINITIONS AND ACRONYMS

### 7.1 Definitions

See LANL [Definition of Terms](#).

**Adverse weather conditions** – Weather that prohibits collection of samples such as local flooding, high winds, hurricanes, tornadoes, electrical storms, etc. Could also include drought, extended frozen conditions, etc.

**Clarity** – Clearness or cleanness of appearance. This includes the visual observation of suspended sediment.

**Color** – Unpolluted water will be clear and colorless. Color must not be confused with clarity.

**Control Measure** – Refers to any stormwater control or other method (including narrative effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the United States.

**Floating solids** – Particulate material floating on the surface of the water. Examples include raw or waste materials and common trash.

**Foam** – An accumulation of fine frothy bubbles formed in or on the surface of water. A mass of bubbles of air in a matrix of liquid film.

**Measurable storm event** – Precipitation that results in an actual discharge from the site that follows the preceding measurable storm event by at least 72 hours (3 days).

**Odor** – The property or quality of waters that affects or stimulates the sense of smell. Examples of odors that may be present are burnt oil, petroleum hydrocarbon, sewage, diesel, sulfuric, or detergent odors.

**Oil sheen** – The presence of rainbow-like colors glistening on the surface of a liquid. The color of oil sheen will vary dependent on thickness and consistency.

**Settled solids** – Settled particulate material i.e., heavier than water. Examples include sand, gravel, metal turnings, and glass.

<b>MSGP Stormwater Visual Assessments</b>	No: EPC-CP-QP-2105	Page 13 of 19
	Revision: 1	Effective Date: 09/08/2021

**Suspended solids** – Particulate materials that are floating between the bottom of the sample and the surface of the water.

**Unstaffed and Inactive Sites** – A facility maintaining certification within the SWPPP that it is inactive and unstaffed and visual examinations are not required.

## 7.2 Acronyms

See LANL [Acronym Master List](#).

DEP	Deployed Environmental Professional
EPC-CP	Environmental Protection and Compliance – Compliance Programs
FOD	Facility Operations Division
IWD	Integrated Work Document
LANL	Los Alamos National Laboratory
MC	Maintenance Connection
MC Express	Maintenance Connection MC Express web application
MSGP	Multi-Sector General Permit
NPDES	National Pollutant Discharge Elimination System
SAP	Sampling and Analysis Plan
SCM	Stormwater Control Measure
SWPPP	Stormwater Pollution Prevention Plan

## 8.0 REFERENCES

EPC-CP-QP-2109, MSGP Corrective Actions

EPC-CP-PIP-2101, NPDES Multi-Sector General Permit Program Implementation Plan

## 9.0 ATTACHMENTS

**Attachment 1:** Screenshot Examples of EPC-CP-QP-2105 R1 Form 1, MSGP Visual Assessment in MC Express

**Attachment 2:** EPC-CP-QP-2105 R1 Form 1, MSGP Visual Assessment Hard Copy Example

<b>MSGP Stormwater Visual Assessments</b>	No: EPC-CP-QP-2105	Page 14 of 19
	Revision: 1	Effective Date: 09/08/2021

**Attachment 1: Screenshot Examples of EPC-CP-QP-2105 R1 Form 1  
MSGP Visual Assessment in MC Express**

(Page 1 of 4)

Work Order Summary Page (Section 3.1, Steps 5 and 6)

The screenshot displays the MC Express interface for a work order summary. At the top, the header shows 'MC Express' with a back arrow and a menu icon. Below the header, the work order number 'MSGP-4344' is displayed, along with a 'Summary' link and a flag icon. The main content area shows a list of tasks and assignments. The 'Tasks' item is circled in red. Below the list, there is a 'More Work Order Detail...' link with a right arrow icon. The bottom navigation bar includes a 'Refresh' button, a grid icon, and a 'List' button.

Item	Count
Tasks	15
Assignments	1
Labor	0
Parts	0
Other Costs	0
Attachments	2
Asset History	121



<b>MSGP Stormwater Visual Assessments</b>	No: EPC-CP-QP-2105	Page 15 of 19
	Revision: 1	Effective Date: 09/08/2021

## Attachment 1: Screenshot Examples of EPC-CP-QP-2105 R1 Form 1 MSGP Visual Assessment in MC Express (cont.)

(Page 2 of 4)

Work Order Tasks Page – Documenting Sample Information (Section 4.1, Steps 2-7)

**MC Express**

WORK ORDER: MSGP-4344

Tasks

The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.

**Sample information**

- 1** 30 Document the monitoring period.
- 2** 40 Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).
- 3** 50 Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).
- 4** 60 Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).
- 5** 70 Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.
- 6** 80 Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.

Refresh List

**MC Express**

WORK ORDER: MSGP-4344

Edit Task

30 Document the monitoring period.

Reading

July-Sept.

Initials

Failed?

No

Not Applicable?

No

Complete?

Yes

Comments

Cancel Save Save/Next

<b>MSGP Stormwater Visual Assessments</b>	No: EPC-CP-QP-2105	Page 16 of 19
	Revision: 1	Effective Date: 09/08/2021

**Attachment 1: Screenshot Examples of EPC-CP-QP-2105 R1 Form 1  
MSGP Visual Assessment in MC Express (cont.)**

(Page 3 of 4)










Work Order Tasks Page – Assessing Parameters (Section 4.2, Steps 1-9)

**MC Express**

WORK ORDER: MSGP-4344

Tasks

**Parameters**

 <b>110</b> <b>7</b> Is sample colorless? If "Failed", describe.	↓
 <b>120</b> <b>8</b> Is sample odorless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)	↓
 <b>130</b> <b>9</b> Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).	↓
 <b>140</b> <b>10</b> Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.	↓
 <b>150</b> <b>11</b> Is sample free of settled solids? If "Failed", provide description (e.g., fine, coarse).	↓
 <b>160</b> <b>12</b> Is sample free of suspended solids? If "Failed", provide description (e.g., fine, coarse).	↓
 <b>170</b> <b>13</b> Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g., 'on the surface' or 'in the sample').	↓
 <b>180</b> <b>14</b> Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).	↓
 <b>190</b> <b>15</b> Is sample free of other obvious indicators of pollution? If "Failed", describe.	↓

**Refresh** **List**

<b>MSGP Stormwater Visual Assessments</b>	No: EPC-CP-QP-2105	Page 17 of 19
	Revision: 1	Effective Date: 09/08/2021

**Attachment 1: Screenshot Examples of EPC-CP-QP-2105 R1 Form 1  
MSGP Visual Assessment in MC Express (cont.)**

(Page 4 of 4)

Work Order Status Update Page – Completing the Form (Section 4.3, Steps 4-6)

The screenshot shows the 'MC Express' mobile application interface for updating a work order status. The header bar is blue with a back arrow, 'MC Express' text, and a menu icon. Below the header, the work order number 'MSGP-4344' and the title 'Status Update' are displayed. The main form area includes several sections: 'Issued / Completed' with a clipboard icon; 'New Status' with a red box labeled '16' next to a dropdown menu showing 'Completed'; 'Date' with a calendar icon and a text field showing '6/19/2018 10:48 AM'; 'Percent Complete' with a slider set to 100%; and 'Labor Report Update' with a red box labeled '17' next to a dropdown menu showing 'Select Comments to Add....'. At the bottom, there is a text field with 'Jane Admin' and a navigation bar with 'Cancel' and 'Save' buttons.

Work Order Status Update Page (Section 4.3, Step 7)

The screenshot shows the 'MC Express' mobile application interface for updating a work order status, specifically the signature section. The header bar is blue with a back arrow, 'MC Express' text, and a menu icon. Below the header, the work order number 'MSGP-4344' and the title 'Status Update' are displayed. The main form area includes a 'Signature' section with a red box labeled '18' next to a signature field. Below the signature field, there is a '(Remove)' link. At the bottom, there is a navigation bar with 'Cancel' and 'Save' buttons.

<b>MSGP Stormwater Visual Assessments</b>	No: EPC-CP-QP-2105	Page 18 of 19
	Revision: 1	Effective Date: 09/08/2021

**Attachment 2: EPC-CP-QP-2105 R1 Form 1, MSGP Visual Assessment Hard Copy Example**  
(Page 1 of 2)

Los Alamos National Laboratory

Work Order MSGP-4344

MSGP Monitoring Stations  
Printed 6/19/2018 - 10:55 AM (Duplicate Copy)

**Maintenance Details**

<b>Requested By:</b> Admin, Jane on 6/7/2018 10:51:00 AM	<b>Target:</b> 12/31/2018	MSGP Program RG121.9 TA-60-2 Warehouse Monitored Outfall (026) MSGP02601
<b>Procedure:</b> MSGP Quarterly Visual Assessment (EPC-CP-QP-2105 R1 Form 1)	<b>Priority/Type:</b> / Inspection	
<b>Last PM:</b> 5/5/2010	<b>Department:</b> Utilities and Infrastructure	
<b>Reason:</b> EXAMPLE MSGP Visual Assessment		
<b>Special Instructions:</b>		<b>Contact:</b> Admin, Jane <b>Phone:</b> 123-4567

**Tasks**

#	Description	Meas.	No	N/A	Yes
The result of this VA applies to associated SIOs as defined in the SWPPP, where applicable.					
<b>Sample information</b>					
1 30	Document the monitoring Period		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 40	Document the Date/Time Discharge began in the "Reading" field of this line (using mm/dd/yy hh:mm format).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 50	Document the Date/time sample collected in the "Reading" field of this line (using mm/dd/yy hh:mm format).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 60	Document the Date/time sample visually assessed in the "Reading" field of this line (using mm/dd/yy hh:mm format).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 70	Document the nature of discharge (e.g., rain, snowmelt). Document the TOTAL amount (in) in the "Reading" field of this line.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 80	Sample collected in first 30 minutes of discharge? If "Failed" or unknown, provide a reason.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Parameters</b>					
7 110	Is sample colorless? If "Failed", describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 120	Is sample odorless? If "Failed", provide description (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 130	Is sample clear? If "Failed", provide description (e.g., slightly cloudy, cloudy, opaque).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 140	Is sample free of floating solids? If "Failed", describe if raw or waste material(s) in the comments of this line.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 150	Is sample free of settled solids? If "Failed", provide description (e.g., fine, coarse).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 160	Is sample free of suspended solids? If "Failed", provide description (e.g., fine, coarse).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 170	Is sample foamless after gently shaking? If "Failed" describe foam color and location (e.g., 'on the surface' or 'in the sample').		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 180	Is sample devoid of an oil sheen? If "Failed", describe color and thickness (e.g. flecks, globs).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 190	Is sample free of other obvious indicators of pollution? If "Failed", describe		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Labor Report**

16 Completed: 6/19/2018 10:48:00 AM

17 Report: Jane Admin

18 6/19/2018

Signature / Name Date Signature / Name Date

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

<b>MSGP Stormwater Visual Assessments</b>	No: EPC-CP-QP-2105	Page 19 of 19
	Revision: 1	Effective Date: 09/08/2021

**Attachment 2: EPC-CP-QP-2105 R1 Form 1, MSGP Visual Assessment Hard Copy Example (cont.)**

(Page 2 of 2)

**CERTIFICATION STATEMENT**

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

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


19 Print name and title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

EPC-CP-QP-2105 R1 Form 1

Attachment 19: **EPC-CP-TP-2103, *INSPECTING ISCO STORMWATER RUNOFF SAMPLERS AND  
RETRIEVING SAMPLES***



<b>EPC-CP-TP-2103</b>	Revision: <b>0</b>	
Effective Date: 02/24/2020	Next Review Date: 02/24/2023	

**Environment, Safety, Health, Quality, Safeguards, and Security Directorate**

**Environment Protection and Compliance – Compliance Programs Group**

**Technical Procedure**

## Inspecting ISCO Stormwater Runoff Samplers and Retrieving Samples

**Hazard Grading:**    ☐ Low        ☒ Moderate        ☐ High/Complex

**Usage Level:**    ☒ Reference    ☐ UET        ☐ Mixed: UET Sections: \_\_\_\_\_

**Status:**        ☐ New        ☐ Major Revision    ☐ Minor Revision

☐ Review w/No Changes        ☒ Other: New EPC-CP format and numbering system

**Safety Basis:**    ☒ N/A        ☐ USQ        ☐ USI Number: \_\_\_\_\_

**Document Author/Subject Matter Expert:**

Name:	Organization:	Signature:	Date:
Holly L. Wheeler	EPC-CP	Signature on File	02-20-2020

**Derivative Classifier:**    ☒ **Unclassified** or ☐ \_\_\_\_\_

Name:	Organization:	Signature:	Date:
Steven E. Wolfel	EPC-CP	Signature on File	02-19-2020

**Approval Signatures:**

EPC-CP Reviewer:	Organization:	Signature:	Date:
Terrill W. Lemke	EPC-CP	Signature on File	02-19-2020
EPC-CP RLM:	Organization:	Signature:	Date:
Taunia Van Valkenburg	EPC-CP	Signature on File	02-24-2020

*This copy is uncontrolled.*

*Users are responsible for ensuring they work to the latest approved version.*

*To document a required read, Login to [UTrain](#), and go to the Advanced Search.*



<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 2 of 27
	Revision: 0	Effective Date: 02/24/2020

#### REVISION HISTORY

<b>Document Number and Revision</b> <i>[Include revision number, beginning with Revision 0]</i>	<b>Effective Date</b> <i>[Document Control Coordinator inserts effective date]</i>	<b>Description of Changes</b> <i>[List specific changes made since the previous revision]</i>
ENV-RCRA-QP-047, Rev. 0	03/11	New Document.
ENV-RCRA-QP-047, Rev. 1	02/13	Annual Review and Revision
EPC-CP-QP-047, Rev. 2	09/06/2017	Review and revision. Updated document to new template and new group name. Clarified steps. Modified inspection form EPC-CP-Form-1010. Added crosswalk to electronic form in MC Express.
EPC-CP-TP-2103 R0	02/24/2020	Supersedes EPC-CP-QP-047 R2. Reformat to new EPC-CP template. Re-number procedure and forms to new EPC-CP procedure numbering system. Minor edits.

<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 3 of 27
	Revision: 0	Effective Date: 02/24/2020

## Table of Contents

Revision History .....	2
1.0 Introduction .....	4
1.1 Purpose .....	4
1.2 Scope .....	4
1.3 Applicability .....	4
2.0 Precautions and Limitations .....	5
2.1 Precautions.....	5
2.2 Limitations.....	5
3.0 Prerequisite Actions.....	6
3.1 Planning and Coordination.....	6
3.2 Performance Documents .....	6
3.3 Special Tools, Equipment, Parts, and Supplies.....	7
4.0 Inspecting the Sampler and Sample Retrieval.....	8
4.1 Inspecting the Sampler.....	8
4.1.1 On Arrival .....	8
4.1.2 Water Collection Information .....	9
4.1.3 Water Retrieval Information .....	10
4.1.4 On Departure .....	10
4.1.5 Equipment Specific Tasks.....	11
4.1.6 Maintenance Information.....	12
4.1.7 Bottle Information .....	12
4.2 Retrieving Samples .....	13
4.3 Removing Stormwater Samples from the field .....	15
4.4 Completing the Inspection Form.....	15
5.0 Training .....	16
6.0 Records .....	16
7.0 Definitions and Acronyms.....	17
7.1 Definitions .....	17
7.2 Acronyms.....	17
8.0 References .....	17
9.0 Attachments .....	18
Attachment 1: Screenshot Examples of EPC-CP-TP-2103 R0 Form 1, ISCO Sampler Inspection and Sample Retrieval in MC Express.....	19
Attachment 2: EPC-CP-TP-2103 R0 Form 1, <i>ISCO Sampler Inspection and Sample Retrieval</i> Hard Copy Example .....	25
Attachment 3: Sample Retrieval Flow Diagram.....	27

<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 4 of 27
	Revision: 0	Effective Date: 02/24/2020

## **1.0 INTRODUCTION**

Los Alamos National Laboratory (LANL) through Environmental Protection and Compliance-Compliance Programs (EPC-CP) conducts stormwater monitoring activities required pursuant to the National Pollutant Discharge Elimination System (NPDES), Multi-Sector General Permit (MSGP) at LANL. The MSGP requires LANL to monitor stormwater runoff from industrial sites relative to potential pollutants.

### **1.1 Purpose**

This procedure describes the process for inspecting ISCO automated samplers and retrieving stormwater runoff samples from outfall locations where LANL conducts stormwater monitoring pursuant to NPDES MSGP requirements. This procedure may also be used for other Associate Laboratory Directorate of Environment, Safety, Health, Quality, Safeguards, and Security (ESHQSS) stormwater monitoring activities as needed.

### **1.2 Scope**

The discharge of stormwater from specified industrial sites at LANL is regulated under the NPDES MSGP. The Laboratory's MSGP requires qualitative and quantitative stormwater monitoring (e.g., sample collection) to evaluate the effectiveness of control measures. Automated ISCO samplers coupled with liquid level actuators are used at MSGP monitoring stations and in support of other stormwater monitoring programs. Refrigerated (Avalanche®) and/or non-refrigerated (Model 3700) samplers are deployed and configured with multi-battery arrays, solar panels, and surge protectors.

Field personnel are required to inspect the sampling station while retrieving water samples during MSGP stormwater monitoring periods and at other intervals determined by the program or as directed by the MSGP Program Lead.

Inspections and sample retrieval conducted under this procedure should be documented using the Maintenance Connection Express™ (MC Express) web application on a tablet or notebook style computer. (In the event of electronic hardware or web application failure, personnel may use a printed hard copy to conduct inspection and sample retrieval.)

### **1.3 Applicability**

This procedure applies to the EPC-CP technical staff and subcontractor personnel (as applicable) conducting activities at automated stormwater sampling stations used for monitoring industrial stormwater discharge under the MSGP or other stormwater monitoring programs.

The MSGP Program Lead is primarily responsible for this procedure. EPC-CP personnel are appointed responsibility for a subset of sampling stations. Other stormwater monitoring programs or projects utilizing this procedure will refer to program or project specific roles and responsibilities.

<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 5 of 27
	Revision: 0	Effective Date: 02/24/2020

## 2.0 PRECAUTIONS AND LIMITATIONS

### 2.1 Precautions

The hazard level of the activities in this procedure is **MODERATE**. Hazards in the work described in this procedure are controlled thorough a site specific Integrated Work Document (IWD) Part I. The IWD Part II (Form 2101) addresses site specific requirements and training by the Facility Operations Division (FOD).

Personnel performing steps in this procedure that involve electrical equipment **MUST** be trained to LANL electrical safety standards as prescribed in the IWD before performing those steps.

Personnel must wear appropriate clothing (e.g., boots, long pants, etc.) to perform work in the field.

Work may be discontinued during periods or conditions that make sites dangerous for worker safety or prevent personnel from safely accessing sites (e.g., weather-related events such as flash floods, flooding, lightning, wildfires, hail, icy roads, deep snow, or LANL operations such as firing shots or burns).

In the event of pest infestation (e.g., wasp or rat nests), do not attempt to remove the pest yourself. Call LANL Pest Control to coordinate the removal of the pest(s).

If conditions prevent field work, document the conditions in the Labor Report Update field on the form and notify the Program Lead or designee within 24 hours. Multiple attempts can be documented on the original form. If the target date cannot be met, the field personnel must contact the Program Lead no less than 24 hours before the target date for guidance.

### 2.2 Limitations

In MC Express, document responses to each question on a work order by clicking the expand arrow located on the right side of the task line and changing the "Complete" or "Failed" or "N/A" line to "Yes". When using a hard copy form, mark the appropriate check box.

Throughout this process, the field personnel will document comments and notations in the "Reading" field of the associated task line. Additional comments not documented in a "Reading" field can be entered in the "Comments" field of the same task line. If field personnel need more space, additional comments can be entered in the "Labor Report Update" field (see Section 4.10) when the work order is updated to "Complete" status. When using a hard copy form, document comments on the corresponding task line. If additional space is needed, comments can be entered in the "Labor Report" section at the bottom of the form.

Some terminology varies between the MC Express software and the Maintenance Connection desktop software.

- The "Reading" field in MC Express is the same field as "Reading Final" in Maintenance Connection desktop and "Meas." on a hard copy (printed) work order.

<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 6 of 27
	Revision: 0	Effective Date: 02/24/2020

- The “Complete” option in MC Express is the same as a “Yes” answer; the “Failed” option in MC Express is the same as a “No” answer. Maintenance Connection desktop and hard copy (printed) work orders use “Yes” and “No” terminology.

### 3.0 PREREQUISITE ACTIONS

#### 3.1 Planning and Coordination

1. Ensure that field personnel have access to accurate time measurement at the Site. When at the site, the clock time on the ISCO sampler must be set to Mountain Standard Time (MST) at all times, with no daylight saving time adjustment.
2. Schedule work to be completed by the target date appearing on the work order(s) or as requested by the MSGP Program Lead if a form is not issued.
3. Obtain any necessary additional paperwork before conducting this work, including IWD's, and excavation permits (as necessary).
4. As specified in the IWD, inform (e.g., by e-mail) facility contacts and/or Deployed Environmental Professional of the schedule for sampler work and locations up to a week before (preferred), but no later than the day before (for minor changes) so work may be added to the appropriate plan of the day.

**NOTE:** For some FODs like the Utilities and Institutional Facilities FOD, MSGP stormwater monitoring activities are on a standing plan of the day. However, this must be requested each year at the beginning of the monitoring season.

5. Gather the required equipment (see Section 3.3) for the work to be done.
6. Using the Safari or Chrome web browser on a tablet or notebook style computer, navigate to <http://express.maintenanceconnection.com> and select English from the available dropdown menu.
7. Log into the MC Express application (<http://express.maintenanceconnection.com>) and confirm that the work order list displayed matches your sites. If the work order lists do not match, contact EPC-CP Data Management personnel for clarification.
8. In MC Express, click on the appropriate work order number to open the work order. The work order will open in the display to the Work Order Summary page.
9. Click on the “Tasks” bar to navigate to the work order Tasks page. See MC Express screen shot examples in Attachment 1.
10. Always log out of MC Express when you have finished work OR if work is interrupted.

#### 3.2 Performance Documents

Personnel performing this procedure will be familiar with the most current versions of the following plans and operation manuals if this equipment is utilized. Copies of the following are not required to be on the job site.

<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 7 of 27
	Revision: 0	Effective Date: 02/24/2020

- EPC-CP MSGP Sampling and Analysis Plan (SAP) most recent revision for the current monitoring year OR project specific monitoring plan;
- ISCO 3700 Portable Samplers Installation and Operation Guide;
- ISCO Avalanche® Installation and Operation Guide; or
- ISCO 701 pH/Temperature Module Installation and Operation Guide (if equipped at a station).

### **3.3 Special Tools, Equipment, Parts, and Supplies**

Ensure the following equipment is available.

- Safety glasses;
- Sturdy hiking boots or steel toed shoes (as needed) with soles that grip and other required facility specific Personal Protective Equipment;
- Nitrile gloves;
- Leather gloves;
- Cell phone (only government cell phones are allowed in secure areas). (See <https://int.lanl.gov/policy/documents/P217.pdf> for requirements for using portable electronic devices on Laboratory property);
- Copy of this procedure;
- Copy of the IWD;
- EPC-CP MSGP SAP most recent revision for the current monitoring year OR project specific monitoring plan;
- Site Map(s) (as needed);
- Current electronic or paper inspection form EPC-CP-TP-2103 Form 1, *MSGP ISCO Sampler Inspection and Sample Retrieval*;
- Government issued electronic tablet with Safari or Chrome web browser and Blackberry UEM™ app. (See <https://int.lanl.gov/policy/documents/P217.pdf> for requirements for using portable electronic devices on Laboratory property);
- Water Sample Collection and Processing Log/Field Chain of Custody (SCPL) (see EPC-CP-QP-2106);
- Access to accurate time measurement;
- Necessary access and station keys;
- Insulated hand tools;
- Charged spare battery(s);

<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 8 of 27
	Revision: 0	Effective Date: 02/24/2020

- Battery voltage tester;
- Clean spare tubing (pump, suction, discharge types, sampler specific);
- Certified clean replacement sample bottles (glass and poly);
- Spare/replacement sampler parts (liquid level actuator, distributor arm);
- Shovel;
- Wooden stakes;
- Plastic wire “zip” ties;
- Coolers with ice or Blue Ice®;
- Paper Towels;
- Marker pen (permanent, waterproof);
- Ball point pen;
- Re-sealable zipper storage bags (e.g., Ziploc®);
- Custody seals; and
- 0.45 micron filter (where applicable).

#### 4.0 INSPECTING THE SAMPLER AND SAMPLE RETRIEVAL

Inspection of ISCO samplers is performed weekly during the sampling season. Samples retrieved are determined at a sampling station based on the current year SAP. See Attachment 1 for screen shot examples of EPC-CP-TP-2103 R0 Form 1, *ISCO Sampler Inspection and Sample Retrieval* in MC Express. See Attachment 2 for an example of the form in hard copy format.

**NOTE:** Each ITEM number listed in **red font** below corresponds to a **red numbered box** on both screenshots (Attachment 1) and hard copy format (Attachment 2).

#### 4.1 Inspecting the Sampler

##### 4.1.1 On Arrival

- [1] Remove the top cover from the sampler.
- [2] **ITEM 1:** Check and document the sampler is ON and its condition upon arrival. Explain any non-functional status.
  - [a] IF a sampler has been inactivated (e.g., sample collection completed) prior to this inspection but continues to appear on the inspection form, THEN answer this task line question “N/A.”
  - [b] Subsequent questions regarding the inactive sampler may be left unanswered in this section.



<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 9 of 27
	Revision: 0	Effective Date: 02/24/2020

- [3] **ITEM 2:** Check and document the ISCO programming displays the following.
  - [a] ISCO 3700 sampler display should indicate “Sampler Inhibited”
  - [b] Avalanche sampler display should indicate “Program Disabled”
  - [c] Document messages other than those in [a] and [b] (e.g., “Done X samples,” “sampler off,” etc.,).
- [4] IF there is no indication of flow and the sampler triggered due to a non-flow event, THEN describe why the sampler triggered (e.g., animal, tumbleweed, etc.,).
- [5] **ITEM 3:** Check and document the sampler is set to the correct MST +/- no more than 1 minute. Do **NOT** use Daylight Savings Time.
  - [a] IF the sampler is set incorrectly, THEN reprogram for the correct MST.
  - [b] Describe the work performed and correction applied (e.g., “ISCO clock was X minutes slow”).
- [6] If the location has more than one sampler, complete Steps 1 through 5 for each sampler.

#### **4.1.2 Water Collection Information**

- [1] Don nitrile gloves and safety glasses.
- [2] Remove the center section from the sampler.
- [3] **ITEM 4:** Document evidence of storm water flow at the sampling location by describing the evidence of flow (e.g., sediment or vegetation movement, erosion, standing water).
  - [a] IF the sampler did not trip but there is evidence of flow, THEN document the date and time storm water discharge began from the precipitation report.
  - [b] IF the sampler tripped or collected storm water, THEN document the date/time stamp from the sampler (or from the precipitation report if the sampler did not record a date/time stamp).
- [4] **ITEM 5:** Document that storm water is collected.
  - [a] Document if the water is taken by grab sample.
  - [b] Complete the Bottle Information (**ITEM 20**) in Section 4.1.7.
  - [c] Follow the steps in thru Section 4.2 Step 16 to retrieve samples.
- [5] **ITEM 6:** For Avalanche samplers only, record the current refrigerator temperature in degrees Celsius (°C) when water is collected.

<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 10 of 27
	Revision: 0	Effective Date: 02/24/2020

- [a] IF unable to review the temperature,  
THEN check “No” and describe the condition (e.g., dead battery, electrical short).
- [6] **ITEM 7:** For Avalanche samplers equipped with an ISCO pH and Temp Module, check and document a pH measurement was taken on the collected water.
  - [a] Record the pH measurement taken at the time Bottle 1 was filled as “Average:Minimum:Maximum.”
  - [b] IF unable to review the pH,  
THEN check “No” and describe the condition (e.g., damaged meter).

#### 4.1.3 Water Retrieval Information

- [1] **ITEM 8:** Check and document whether a sample volume was retrieved from the sampler and taken off site.
  - [a] Record the estimated total volume in liters (L) or milliliters (ml) **taken off site**.
- [2] **ITEM 9:** Check and document whether a visual assessment of the water was performed (refer to EPC-CP-QP-2105).
  - [a] Do **NOT** conduct a visual assessment on a filtered sample. Record “Filtered sample.”

#### 4.1.4 On Departure

##### **WARNING**

You **MUST** be trained to LANL electrical safety standards as prescribed in the IWD before performing Steps 2 and 3.

- [1] Prepare yourself in accordance with the IWD for electrical work (e.g. wear safety glasses and leather gloves, use insulated tools, no jewelry or anything metal hanging from body, etc.,).
- [2] **ITEM 10:** Check that all cable and electrical connections are attached and firmly tightened (not loose) upon departure.
 

**NOTE:** Connections may work loose over time due to temperature changes and if there are dis-similar metals at the connection points. The loose connections can introduce voltage spikes, which inherently cause current spikes that may result in blown fuses.

  - [a] IF the cables require replacement, connections require tightening, or other maintenance performed,  
THEN describe the work performed (e.g., “tightened connectors on battery).
  - [b] IF maintenance cannot be completed at the time of inspection,

<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 11 of 27
	Revision: 0	Effective Date: 02/24/2020

THEN describe the condition (e.g. cables chewed through by animal) and follow-up work needed (e.g., replace cables).

- [3] **ITEM 11:** Use a voltage meter to check the power supply.
  - [a] Record the voltage of the battery(ies) in volts (V).
  - [b] Document if battery voltage is acceptable upon departure from the site ( $\geq 11.7$  for non-floating charged batteries at ISCO 3700 samplers and  $\geq 11.0$  for floating-charged batteries at Avalanche samplers).
  - [c] Replace a battery with a charged battery when the voltage is not acceptable.
  - [d] Check the voltage of the solar panel if access can be gained to the weather protected terminal covers on the back of the panel.
- [4] Contact the program Electrical Safety Officer if any issues with wiring or batteries cannot be resolved on site.

#### 4.1.5 Equipment Specific Tasks

- [1] **ITEM 12:** Check and document the sampler passes the diagnostic test. (Refer to EPC-CP-TP-2102 or sampler Operator's Guide for instructions on running a diagnostics test.)
  - [a] IF a sampler has been inactivated (e.g., sample collection completed) prior to this inspection but continues to appear on the inspection form, THEN answer this task line question as "N/A." Subsequent questions regarding this sampler may be left unanswered in this section.

#### **CAUTION**

Only reset the pump counts after replacing the internal pump tubing.

- [2] IF the internal pump tubing has reached or exceeded the preset pump counts (500,000 for ISCO 3700s, 1,000,000 for Avalanches), THEN replace the pump tubing and reset the pump counts.
- [3] **ITEM 13:** Check and document the sample tubing is free or clear of debris.
  - [a] Clear obstructions as needed and document maintenance performed.
- [4] Check the physical condition of sample tubing and vent tubing.
  - [a] Replace tubing as needed and document maintenance performed.
- [5] **ITEM 14:** Check and document the sample tubing has passed a suction test.
- [6] **ITEM 15:** Check and document the sampler is ON prior to departing the site.
- [7] **ITEM 16:** Check and document the liquid level actuator has been set to "Latch" prior to departing the site.

<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 12 of 27
	Revision: 0	Effective Date: 02/24/2020

- [a] IF the sampler tripped and requires reset of the sampling program,  
THEN reset the actuator by toggling the switch to “Reset” and back to “Latch.”
- [8] **ITEM 17:** Check and document the ISCO programming displays the following.
  - [a] ISCO 3700 sampler display should indicate “Sampler Inhibited.”
  - [b] Avalanche sampler display should indicate “Program Disabled.”
  - [c] Reprogram the sampler as needed and document maintenance performed.
- [9] Replace and secure the sampler top cover and secure the sampler shelter (if sampler is in a shelter).
- [10] If the location has more than one sampler, complete Steps 1 through 11 for each sampler.

#### **4.1.6 Maintenance Information**

- [1] **ITEM 18:** Document maintenance completed while on site that is not documented elsewhere on the work order by describing the work performed.  
  
**NOTE:** Maintenance items may include (but are not limited to) site clearing, installing new or additional equipment, removing equipment, animal/pest mitigation, problems with equipment location, etc.
- [2] IF a battery was replaced,  
THEN record the voltage of the new battery and the battery identification number.
  - [a] IF the battery does not have an identification number,  
THEN:
    - Contact the MSGP Program Lead to have one assigned.
    - Paint or write the number in a permanent manner on the battery.
- [3] **ITEM 19:** Document if maintenance is needed that was not completed while on site and that is not documented elsewhere on the work order.
  - [a] Describe on the work order the follow-up maintenance needed.
  - [b] When the maintenance has been complete, describe the actions taken to complete the work on the original work order.
  - [c] Record the maintenance completion date and time on the original work order.

#### **4.1.7 Bottle Information**

- [1] **ITEM 20:** Document water collected by recording the following information for each bottle by position number in the carousel.

<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 13 of 27
	Revision: 0	Effective Date: 02/24/2020

- Date (MM/DD/YY or MM-DD-YY) and time the ISCO collected water,
  - Volume (L or ml) of water in the bottle,
  - Type of bottle (e.g. G for glass, P for poly),
  - Specific ISCO displayed message, if present.
- [2] IF the sampler(s) did not trigger,  
THEN answer the task line question as “N/A” for Bottle #1 of each sampler and leave the other Bottle task lines unanswered.
- [3] IF a sampler has been inactivated (e.g., sample collection completed) prior to this inspection but continues to appear on the inspection form,  
THEN answer the task line question as “N/A”. Subsequent questions regarding this sampler may be left unanswered in this section.
- [4] Proceed to Section 4.4 if no water was collected.

## 4.2 Retrieving Samples

Refer to the flow diagram in Attachment 3 as an aid in determining sample retrieval.

- [1] Don nitrile gloves and safety glasses.
- [2] Add up the estimated volume of water collected in the sampler.
- [3] Check that the estimated total volume of water in glass and poly matches the required volume for the specific location identified in the MSGP SAP.
- NOTE 1:** The volume of water required to complete analytical may vary by monitored location.
- [a] IF the sample volume is sufficient to fulfill all analytical requirements,  
THEN continue to Step 4.
- [b] IF the sample volume is sufficient to fulfill part of the analytical requirements,  
THEN consult the prioritization order on the MSGP SAP to determine which analytical to fulfill,  
OR contact the MSGP Data Manager. Continue to Step 4 but retrieve only the volume needed.
- [c] IF the collected sample will NOT fulfill the minimum required volume for any analytical,  
THEN:
- Complete a Visual Assessment if the sample is not filtered (refer to EPC-CP-QP-2105),
  - Record estimated total volume (L or ml) retrieved as “0” in **ITEM 8**,

<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 14 of 27
	Revision: 0	Effective Date: 02/24/2020

- Return all water to the ground at the sampling location,
- Skip to Step 11.

**CAUTION**

ISCO Avalanche samplers are programmed to cool samples to 4°C. If water is collected and the refrigerator temperature reads higher than 6°C, **do not** retrieve samples that require ICE preservation. Samples do not meet preservation requirements.

- [4] Remove filled and partially filled bottles from the carousel one at a time.
- [5] For samples to be retrieved,
  - [a] Immediately place lids onto the sample bottles.
  - [b] Securely seal the lids.
  - [c] Place a custody seal on each bottle.
- [6] Write the following on each retrieved sample bottle.
  - Date and time collected (e.g., recorded by the ISCO sampler)
  - Sampler Location number
- [7] Conduct a Visual Assessment on a non-filtered sample (refer to EPC-CP-QP-2105).
- [8] Record estimated total volume (L or ml) retrieved in **ITEM 8**.
- [9] Place retrieved sample bottles in a cooler with blue ice (or equivalent).
- [10] Return any excess stormwater collected that exceeded the amount required to the ground at the location collected.
- [11] Install new certified clean sample bottles in the carousel to replace retrieved bottles.
  - [a] The number and type of bottles may vary. Ensure bottles match the configuration specified in the MSGP SAP.
- [12] Replace the 0.45-micron filter as needed.
 

**NOTE 2:** Consult the most current revision of the MSGP SAP for specifics.
- [13] IF the sampler is turned OFF for the quarter but new certified clean sample bottles and/or the filter have not been replaced,  
THEN note this as follow-up maintenance required in **ITEM 19**.
- [14] Replace and secure the center section of the sampler.
- [15] If the location has more than one sampler, complete Section 4.1.7 thru Section 4.2 for each sampler.
- [16] Return to Section 4.1.2, Step 5.



<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 15 of 27
	Revision: 0	Effective Date: 02/24/2020

#### 4.3 Removing Stormwater Samples from the field

- [1] Transport retrieved samples and corresponding SCPL (see EPC-CP-QP-2106) to the EPC-CP Stormwater Program Laboratory at TA-59-1.
- [2] Sign and date/time the SCPL and place it with the samples in the refrigerator.
- [3] Ensure custody seal is intact on each sample bottle.
- [4] Refer to EPC-CP-QP-2106, *Processing MSGP Stormwater Samples* for processing and submitting samples for shipping to the SMO.
- [5] Ensure the EPC-CP Stormwater Program Laboratory door is locked upon exit.

#### 4.4 Completing the Inspection Form

See Attachment 1 for completing the form in MC Express and Attachment 2 for a hard copy example.

- [1] After all task lines have been completed, make sure you have clicked the “Save” bar at the bottom of the page.
- [2] Click the “Back” arrow button  in the upper left hand corner to exit the work order Tasks page and return to the Work Order Summary page.
- [3] Click the checkered flag  in the upper right corner of the Work Order Summary page to open the Work Order Status Update page. MC Express auto-populates the date and time fields.

#### CAUTION

MC Express automatically changes the work order status to “Closed.”

- [4] **ITEM 21:** Click on the expand arrow located on the right side of the “New Status” field and select “Completed” from the available dropdown menu.
  - [a] Ensure the date and time auto-populated are the date and time the **work was completed** and **not the date/time the form was filled out**.
  - [b] IF work is performed over multiple days, THEN note the date and time the work began in the Labor Report field.
  - [c] To update the date or time, click the “Date” field and make necessary adjustments using the available timestamp application. Click “Set” to apply changes.
  - [d] IF using a hard copy form, THEN write the date and time the work was completed.
- [5] **ITEM 22:** The field personnel must type or write his/her name in the “Labor Report Update” field.



<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 16 of 27
	Revision: 0	Effective Date: 02/24/2020

- [6] Additional notes, observations, or site conditions not documented in a task line “Reading” or “Comments” field can be documented in the “Labor Report Update” field.
- [7] Scroll down the page to the “Signature” bar and click the expand arrow on the left side of the bar to open the “Signature” field.
  - [a] **ITEM 23:** Capture an electronic signature by drawing with a finger on the tablet screen.  
**NOTE:** The mouse must be used to sign electronically when using MC Express on a desktop screen (not a tablet).
  - [b] If using a hard copy form, the field personnel will sign his/her name and date when the form is signed.
  - [c] The field personnel is certifying that the information submitted is “true, accurate, and complete” by electronically signing work order.
- [8] Click on the “Save” bar at the bottom of the page to close the “Signature” field.
- [9] IF completing a hard copy,  
THEN return the form to the MSGP Program Lead.

## 5.0 TRAINING

Personnel performing steps in this procedure that involve electrical equipment **MUST** be trained to LANL electrical safety standards as prescribed in the IWD before performing those steps.

All EPC-CP personnel that execute the activities specified in this procedure must meet the minimum qualification and training requirements for their position as identified EPC-CP-PIP-2101, NPDES Multi-Sector General Permit Program. This will include “self-study” (required reading) for this procedure as assigned and documented in accordance with ADESH-TPP-301, *ADESH Training Program Plan*. Other participating LANL groups may require training documentation pursuant to local procedures.

Contract personnel that execute the activities specified in this procedure will be qualified and trained as required by the Exhibit D and Exhibit F. In addition, contract personnel will be required to complete “self-study” (required reading) of this procedure.

## 6.0 RECORDS

EPC-CP is the Office of Record for this document and must be maintained in accordance with [PD1020](#), *Document Control and Records Management* and ADESH-AP-006, *Records Management Plan*. Records generated by this document will be submitted to the Records Management designated point of contact or document manager for document management.

Below are records generated as a result of implementing this procedure. Records generated are identified by title and type.

<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 17 of 27
	Revision: 0	Effective Date: 02/24/2020

Record Title	QA Record	Non-QA Record
EPC-CP-TP-2103 R0 Form 1, <i>ISCO Sampler Inspection and Sample Retrieval</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## 7.0 DEFINITIONS AND ACRONYMS

### 7.1 Definitions

See LANL [Definition of Terms](#).

### 7.2 Acronyms

See LANL [Acronym Master List](#).

°C	Degrees in Celsius
EPC-CP	Environmental Protection and Compliance-Compliance Programs
FOD	Facility Operations Division
IWD	Integrated Work Document
L	Liter
LANL	Los Alamos National Laboratory
MC Express	Maintenance Connection MC Express web application
ml	Milliliter
MSGP	Multi-Sector General Permit
MST	Mountain Standard Time
NPDES	National Pollutant Discharge Elimination System
SAP	Sampling and Analysis Plan
SCPL	Sample Collection and Processing Log/Field Chain of Custody
V	Volts

## 8.0 REFERENCES

EPC-CP-QP-2105, MSGP Stormwater Visual Assessments

EPC-CP-QP-2106, Processing MSGP Stormwater Samples

EPC-CP-TP-2102, Installing, Setting Up, and Operating ISCO Samplers

EPC-CP-PIP-2101, NPDES Multi-Sector General Permit Program Implementation Plan

ADESH-TPP-301, ADESH Training Program Plan

ADESH-AP-006, Records Management Plan

PD1020, Document Control and Records Management

<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 18 of 27
	Revision: 0	Effective Date: 02/24/2020

## 9.0 ATTACHMENTS

**Attachment 1:** Screenshot Examples of EPC-CP-TP-2103 R0 Form 1, *ISCO Sampler Inspection and Sample Retrieval* in MC Express

**Attachment 2:** EPC-CP-TP-2103 R0 Form 1, *ISCO Sampler Inspection and Sample Retrieval* Hard Copy Example

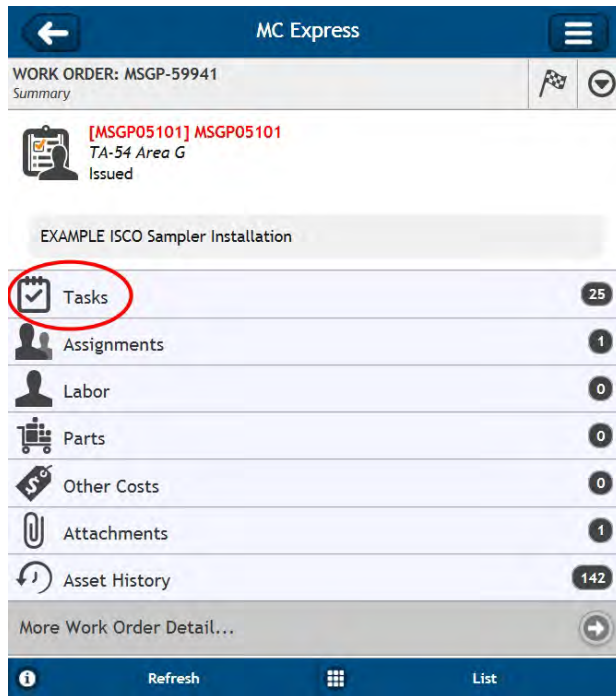
**Attachment 3:** Sample Retrieval Flow Diagram

<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 19 of 27
	Revision: 0	Effective Date: 02/24/2020

## Attachment 1: Screenshot Examples of EPC-CP-TP-2103 R0 Form 1, ISCO Sampler Inspection and Sample Retrieval in MC Express

(Page 1 of 6)

Work Order Summary Page (Section 3.1, Steps 8 and 9)



Inspecting ISCO Stormwater Runoff Samplers & Retrieving Samples	No: EPC-CP-TP-2103	Page 20 of 27
	Revision: 0	Effective Date: 02/24/2020

## Attachment 1: Screenshot Examples of EPC-CP-TP-2103 R0 Form 1, *ISCO Sampler Inspection and Sample Retrieval* in MC Express (cont.)

(Page 2 of 6)

Work Order Tasks page - On Arrival (Section 4.1.1, Steps 2-5)

MC Express

WORK ORDER: MSGP-59941

Tasks

**ON ARRIVAL**

- 20** Is sampler ON and functioning properly upon arrival?  
Asset: [210C01437] ISCO 3700 Sampler
- 30** Does the sampler display "Sampler Inhibited"? If No, record specific message(s).  
Asset: [210C01437] ISCO 3700 Sampler
- 40** Is sampler time delta < 1 min (MST)? If No, record adjustment  
Asset: [210C01437] ISCO 3700 Sampler
- 50** Is sampler ON and functioning properly upon arrival?  
Asset: [210J01522] ISCO Avalanche Sampler
- 60** Does the Avalanche display "Program Disabled"? If No, record specific message(s).  
Asset: [210J01522] ISCO Avalanche Sampler
- 70** Is sampler time delta < 1 min (MST)? If No, record adjustment  
Asset: [210J01522] ISCO Avalanche Sampler

Refresh List

MC Express

WORK ORDER: MSGP-59941

Edit Task

**20** Is sampler ON and functioning properly upon arrival?  
[210C01437] ISCO 3700 Sampler

Reading

Sampler knocked over by bear, power disconnected

Initials

Failed?

Yes

Not Applicable?

No

Complete?

No

Comments

Cancel Save

<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 21 of 27
	Revision: 0	Effective Date: 02/24/2020

### Attachment 1: Screenshot Examples of EPC-CP-TP-2103 R0 Form 1, *ISCO Sampler Inspection and Sample Retrieval* in MC Express (cont.)

(Page 3 of 6)

Work Order Task Page – Water Collection Information and Water Retrieval Information (Sections 4.1.2, Steps 3-6 and 4.1.3, Steps 1 and 2)

The screenshot displays the MC Express mobile application interface. At the top, a blue header bar contains a back arrow, the text "MC Express", and a menu icon. Below the header, a white bar shows "WORK ORDER: MSGP-59941" and "Tasks" with a flag icon and a circular arrow icon. The main content area is divided into two sections: "Water Collection information" and "Water Retrieval information".

**Water Collection information**

- 90** (Step 4): Is there evidence of flow? If YES (but no water collected), describe and record date/time of discharge.
- 100** (Step 5): Is any water collected? If YES, complete Bottle Information section.
- 110** (Step 6): If water was collected, record current refrigerator temperature (C). Asset: [210J01522] ISCO Avalanche Sampler.
- 120** (Step 7): If water was collected, record the pH measurement corresponding to the sample date/time: AVERAGE:.... Asset: [211C01137] ISCO pH and Temp Module.

**Water Retrieval information**

- 140** (Step 8): Was sample volume RETRIEVED? If Yes, record total volume retrieved.
- 150** (Step 9): Was a Visual Assessment performed? If Yes, complete the MSGP Visual Assessment form (EPC-CP-TP-064).

The bottom navigation bar is blue and includes an information icon, a "Refresh" button, a grid icon, and a "List" button.

Work Order Task Page – On Departure (Sections 4.1.4, Steps 2 and 3)

The screenshot displays the MC Express mobile application interface for the "ON DEPARTURE" section. The header and work order information are identical to the previous screenshot. The main content area is titled "ON DEPARTURE" and contains two tasks:

- 170** (Step 10): Are electrical connections secure?
- 180** (Step 11): Record voltage of battery(ies) powering sampler. Voltage(s) >=11.7V?

The bottom navigation bar is blue and includes an information icon, a "Refresh" button, a grid icon, and a "List" button.

<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 22 of 27
	Revision: 0	Effective Date: 02/24/2020

**Attachment 1: Screenshot Examples of EPC-CP-TP-2103 R0 Form 1, *ISCO Sampler Inspection and Sample Retrieval* in MC Express (cont.)**

(Page 4 of 6)

Work Order Task Page – Equipment Specific Tasks (Sections 4.1.5, Steps 1-8)

**MC Express**

WORK ORDER: MSGP-59941

Tasks

**Equipment specific tasks**

- 200** Does the sampler pass the ISCO diagnostics test?  
Asset: [210C01437] ISCO 3700 Sampler
- 210** Is intake tubing free/clear of debris?  
Asset: [210C01437] ISCO 3700 Sampler
- 220** Does sample tubing pass suction test?  
Asset: [210C01437] ISCO 3700 Sampler
- 230** Is sampler on upon departure?  
Asset: [210C01437] ISCO 3700 Sampler
- 240** Has the actuator switch been reset to "Latch"?  
Asset: [210C01437] ISCO 3700 Sampler
- 250** Does ISCO display "Sampler Inhibited" on departure?  
Asset: [210C01437] ISCO 3700 Sampler

Refresh List

Work Order Task Page – Maintenance Information (Sections 4.1.6, Steps 1-3)

**MC Express**

WORK ORDER: MSGP-59941

Tasks

**Maintenance information**

- 330** Is any maintenance not described above completed during inspection? If Yes, describe.
- 340** Is any follow-on maintenance not described above required? If Yes, describe.

Refresh List



Inspecting ISCO Stormwater Runoff Samplers & Retrieving Samples	No: EPC-CP-TP-2103	Page 23 of 27
	Revision: 0	Effective Date: 02/24/2020

## Attachment 1: Screenshot Examples of EPC-CP-TP-2103 R0 Form 1, ISCO Sampler Inspection and Sample Retrieval in MC Express (cont.)

(Page 5 of 6)

Work Order Task Page – Bottle Information (Sections 4.1.7, Step 1)

MC Express

WORK ORDER: MSGP-59941

Tasks

Bottle information: IF bottle collected record bottle type (P or G), collection date & time, volume, and/or any ISCO messages

360 Bottle #1? Asset: [210C01437] ISCO 3700 Sampler	→
370 Bottle #2? Asset: [210C01437] ISCO 3700 Sampler	→
380 Bottle #3? Asset: [210C01437] ISCO 3700 Sampler	→
390 Bottle #4? Asset: [210C01437] ISCO 3700 Sampler	→

Refresh List

MC Express

WORK ORDER: MSGP-59941

Edit Task

360  
Bottle #1?  
[210C01437] ISCO 3700 Sampler

Reading

2/10/17 14:32: 1L poly; no more liquid detected

Initials

Failed?

No

Not Applicable?

No

Complete?

Yes

Comments

Cancel Save

<b>Inspecting ISCO Stormwater Runoff Samplers &amp; Retrieving Samples</b>	No: EPC-CP-TP-2103	Page 24 of 27
	Revision: 0	Effective Date: 02/24/2020

**Attachment 1: Screenshot Examples of EPC-CP-TP-2103 R0 Form 1, *ISCO Sampler Inspection and Sample Retrieval* in MC Express (cont.)**

(Page 6 of 6)

Work Order Status Update Page (Section 4.4, Steps 4 and 5)

MC Express

WORK ORDER: MSGP-59941  
Status Update

Issued

New Status **21**

Completed

Date

03/16/2017 12:03 PM

Percent Complete 100%

Labor Report Update **22**

Select Comments to Add.....

Jane Admin

Cancel Save

Work Order Status Update Page (Section 4.4, Step 7)

MC Express

WORK ORDER: MSGP-59941  
Status Update

Signature **23**

(Remove)

Jane Admin

Cancel Save

# Inspecting ISCO Stormwater Runoff Samplers & Retrieving Samples

No: EPC-CP-TP-2103

Page 25 of 27

Revision: 0

Effective Date: 02/24/2020

## Attachment 2: EPC-CP-TP-2103 R0 Form 1, ISCO Sampler Inspection and Sample Retrieval Hard Copy Example

(Page 1 of 2)

Los Alamos National Lab - ADESH

Work Order MSGP-59941

MSGP Monitoring Stations  
Printed 8/10/2017 - 11:25 AM (Duplicate Copy)

### Maintenance Details

Requested By: Admin, Jane on 8/10/2019 11:23:00 AM  
 Procedure: MSGP ISCO Sampler Inspection and Sample Retrieval (EPC-CP-TP-2103 R0 Form 1)  
 Last PM: 7/20/2019  
 Project:  
 Reason: Example ISCO Sampler Inspection and Sample Retrieval

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

MSGP Program  
 RG121.9  
 TA-3-38 Carpenter Shop  
 Monitored Outfall (073)  
 MSGP07302

Contact: Admin, Jane  
 Phone: 123-4567

### Tasks

#	Description	Meas	No	N/A	Yes
ON ARRIVAL					
1 20	ISCO 3700 Sampler [210C01437] Is sampler ON and functioning properly upon arrival?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 30	ISCO 3700 Sampler [210C01437] Does the sampler display "Sampler Inhibited"? If No, record specific message(s).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 40	ISCO 3700 Sampler [210C01437] Is sampler time delta < 1 min (MST)? If No, record adjustment		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50	ISCO Avalanche Sampler [210J01522] Is sampler ON and functioning properly upon arrival?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
60	ISCO Avalanche Sampler [210J01522] Does the Avalanche display "Program Disabled"? If No, record specific message(s).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
70	ISCO Avalanche Sampler [210J01522] Is sampler time delta < 1 min (MST)? If No, record adjustment		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water Collection information					
4 90	Is there evidence of flow? If YES (but no water collected), describe and record date/time of discharge.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 100	Is any water collected? If YES, complete Bottle Information section.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 110	ISCO Avalanche Sampler [210J01522] If water was collected, record current refrigerator temperature (C).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 120	ISCO pH and Temp Module [211C01137] If water was collected, record the pH measurement corresponding to the sample date/time. AVERAGE. MINIMUM. MAXIMUM.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water Retrieval information					
8 140	Was sample volume RETRIEVED? If Yes, record total volume retrieved.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 150	Was a Visual Assessment performed? If Yes, complete the MSGP Visual Assessment form (EPC-CP-QP-2105).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ON DEPARTURE					
10 170	Are electrical connections secure?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 180	Record voltage of battery(ies) powering sampler. Voltage(s) >= 11.7V?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment specific tasks					
12 200	ISCO 3700 Sampler [210C01437] Does the sampler pass the ISCO diagnostics test?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 210	ISCO 3700 Sampler [210C01437] Is intake tubing free/clear of debris?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 220	ISCO 3700 Sampler [210C01437] Does sample tubing pass suction test?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 230	ISCO 3700 Sampler [210C01437] Is sampler on upon departure?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 240	ISCO 3700 Sampler [210C01437] Has the actuator switch been reset to "Latch"?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 250	ISCO 3700 Sampler [210C01437] Does ISCO display "Sampler Inhibited" on departure?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

EPC-CP-TP-2103 R0 Form 1

**Inspecting ISCO Stormwater Runoff Samplers & Retrieving Samples**

No: EPC-CP-TP-2103


Page 26 of 27

Revision: 0

Effective Date: 02/24/2020

**Attachment 2: EPC-CP-TP-2103 R0 Form 1, ISCO Sampler Inspection and Sample Retrieval Hard Copy Example (cont.)**

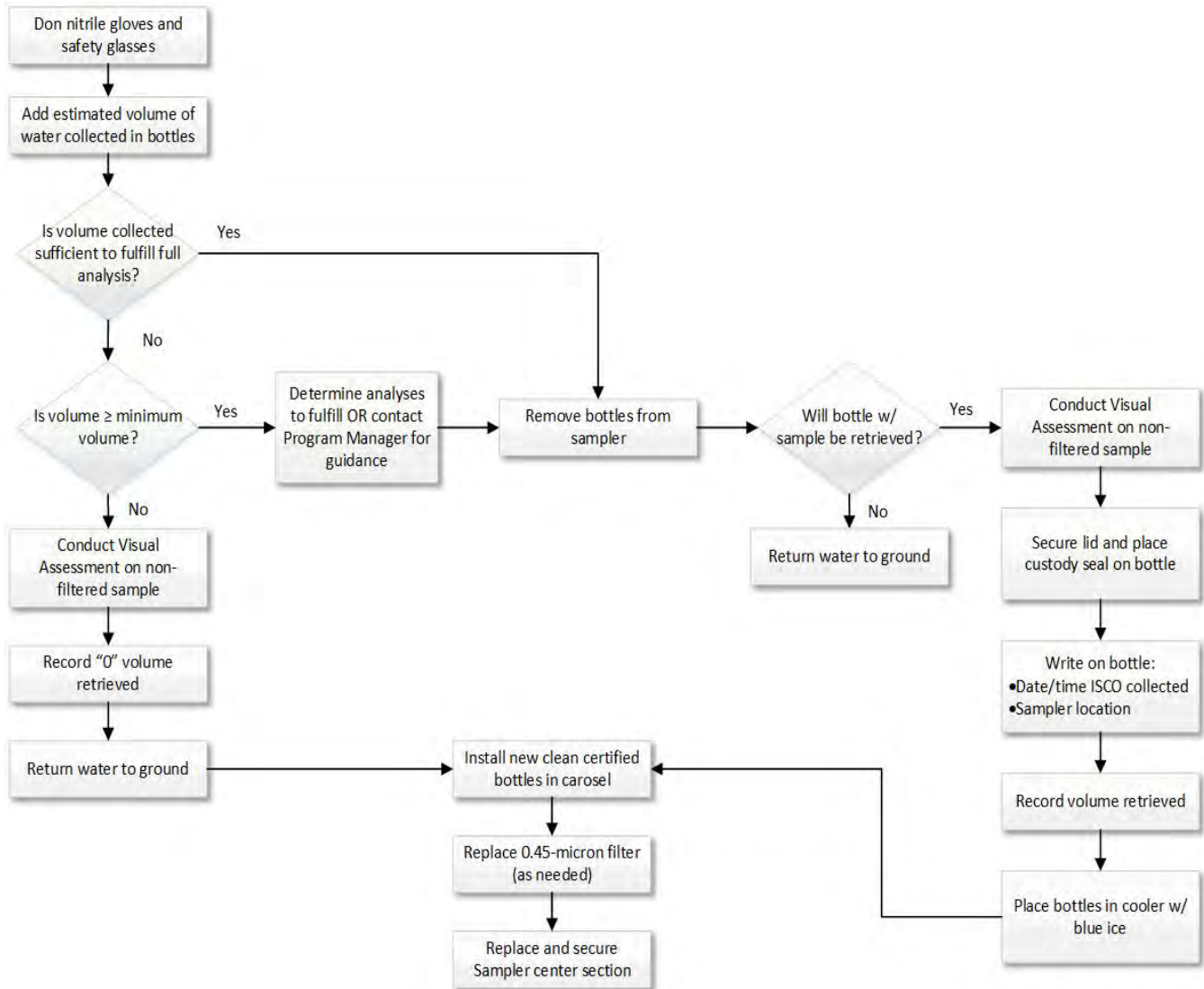
(Page 2 of 2)

260	ISCO Avalanche Sampler [210J01522] Does the sampler pass the ISCO diagnostics test?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
270	ISCO Avalanche Sampler [210J01522] Is intake tubing free/clear of debris?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
280	ISCO Avalanche Sampler [210J01522] Does sample tubing pass suction test?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
290	ISCO Avalanche Sampler [210J01522] Is sampler on upon departure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
300	ISCO Avalanche Sampler [210J01522] Has the actuator switch been reset to "Latch"?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
310	ISCO Avalanche Sampler [210J01522] Does Avalanche display "Program Disabled" on departure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Maintenance Information</b>				
18	330 Is any maintenance not described above completed during inspection? If Yes, describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	340 Is any follow-on maintenance not described above required? If Yes, describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Bottle Information: IF bottle collected record bottle type (P or G), collection date &amp; time, volume, and/or any ISCO messages</b>				
20	360 ISCO 3700 Sampler [210C01437] Bottle #1?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	370 ISCO 3700 Sampler [210C01437] Bottle #2?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	380 ISCO 3700 Sampler [210C01437] Bottle #3?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	390 ISCO 3700 Sampler [210C01437] Bottle #4?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	400 ISCO 3700 Sampler [210C01437] Bottle #5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	410 ISCO 3700 Sampler [210C01437] Bottle #6?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	420 ISCO 3700 Sampler [210C01437] Bottle #7?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	430 ISCO 3700 Sampler [210C01437] Bottle #8?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	440 ISCO 3700 Sampler [210C01437] Bottle #9?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	450 ISCO 3700 Sampler [210C01437] Bottle #10?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	460 ISCO 3700 Sampler [210C01437] Bottle #11?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	470 ISCO 3700 Sampler [210C01437] Bottle #12?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	480 ISCO Avalanche Sampler [210J01522] Bottle #1?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	490 ISCO Avalanche Sampler [210J01522] Bottle #2?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	500 ISCO Avalanche Sampler [210J01522] Bottle #3?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	510 ISCO Avalanche Sampler [210J01522] Bottle #4?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Labor Report</b>				
21	Completed: 5/30/2019 4:44:00 PM			
22	Report: Jane Admin			
23	 Signature / Name	5/30/2019 Date	 Signature / Name	 Date
I confirm the information as recorded is true, accurate and complete.				

EPC-CP-TP-2103 R0 Form 1


**Attachment 3: Sample Retrieval Flow Diagram**

(Page 1 of 1)



Attachment 20: **EPC-CP-QP-2106, *PROCESSING MSGP STORMWATER SAMPLES***



<b>EPC-CP-QP-2106</b>	Revision: <b>0</b>	
Effective Date: 10/18/2019	Next Review Date: 10/18/2022	

**Environment, Safety, Health, Quality, Safeguards, and Security Directorate**  
**Environment Protection and Compliance – Compliance Programs Group**  
**Quality Procedure**

## Processing MSGP Stormwater Samples

**Hazard Grading:**    ☒ Low            ☐ Moderate            ☐ High/Complex

**Usage Level:**    ☒ Reference    ☐ UET            ☐ Mixed: UET Sections: \_\_\_\_\_

**Status:**            ☐ New            ☐ Major Revision    ☐ Minor Revision

☐ Review w/No Changes            ☒ Other: New EPC-CP format and numbering system

**Safety Basis:**    ☒ N/A            ☐ USQ            ☐ USI    Number: \_\_\_\_\_

**Document Author/Subject Matter Expert:**

Name:	Organization:	Signature:	Date:
Holly L. Wheeler	EPC-CP	Signature on File	10-17-19

**Derivative Classifier:**    ☒ **Unclassified** or ☐ \_\_\_\_\_

Name:	Organization:	Signature:	Date:
Steven E. Wolfel	EPC-CP	Signature on File	10-17-19

**Approval Signatures:**

EPC-CP Reviewer:	Organization:	Signature:	Date:
Terrill W. Lemke	EPC-CP Team Leader	Signature on File	10-17-19
EPC-CP RLM:	Organization:	Signature:	Date:
Taunia Van Valkenburg	EPC-CP Group Leader	Signature on File	10-18-19

*This copy is uncontrolled.*

*Users are responsible for ensuring they work to the latest approved version.*

*To document a required read, Login to [UTrain](#), and go to the Advanced Search.*



<b>Processing MSGP Stormwater Samples</b>	No: EPC-CP-QP-2106	Page 2 of 19
	Revision: 0	Effective Date: 10/18/2019

#### REVISION HISTORY

<b>Document Number and Revision</b> <i>[Include revision number, beginning with Revision 0]</i>	<b>Effective Date</b> <i>[Document Control Coordinator inserts effective date]</i>	<b>Description of Changes</b> <i>[List specific changes made since the previous revision]</i>
ENV-RCRA-QP-048, Rev. 0	07/2011	New document
ENV-CP-QP-048, Rev. 1	09/2013	Annual Review and Revision, new format, process change, and new organization name.
EPC-CP-QP-048, Rev. 2	06/05/2017	Review and Revision, new format, and new organization name, clarified steps, updated attachments.
EPC-CP-QP-048 R3	10/05/2017	Updated Sample Collection Log instructions, added a step describing evidence of flow, and added section for addressing excess stormwater material.
EPC-CP-QP-048 R4	01/31/2019	Sample Collection Log form and associated text updated. Added text for collecting quality control samples.
EPC-CP-QP-2106 R0	10/18/2019	Supersedes EPC-CP-QP-048 R4. New EPC-CP procedure format and numbering system. Minor editorial updates.

<b>Processing MSGP Stormwater Samples</b>	No: EPC-CP-QP-2106	Page 3 of 19
	Revision: 0	Effective Date: 10/18/2019

## Table of Contents

Revision History .....	2
1.0 Introduction .....	4
1.1 Purpose .....	4
1.2 Scope .....	4
1.3 Applicability .....	4
2.0 Precautions and Limitations .....	4
3.0 Prerequisite Actions.....	5
3.1 Planning and Coordination.....	5
3.2 Performance Documents .....	5
3.3 Special Tools, Equipment, Parts and Supplies.....	5
4.0 Processing Samples.....	6
4.1 Preparation for Processing Samples .....	6
4.2 Filtering Samples .....	9
4.3 Preserving Unfiltered and Filtered Samples.....	9
4.4 Quality Control Samples.....	10
4.4.1 Field Blank Samples.....	10
4.4.2 Field Duplicate Samples .....	11
4.5 Handling Excess Stormwater .....	12
4.6 Submit Samples for Shipping to Offsite Analytical Laboratory .....	12
5.0 Training .....	14
6.0 Records .....	14
7.0 Definitions and Acronyms.....	15
7.1 Definitions .....	15
7.2 Acronyms.....	15
8.0 References .....	15
9.0 Attachments .....	16
Attachment 1: Water Sample Collection and Processing Log/Field Chain of Custody Example .....	17
Attachment 2: Sample Container Labels Example.....	18
Attachment 3: Chain of Custody/Analysis Request Example .....	19

<b>Processing MSGP Stormwater Samples</b>	No: EPC-CP-QP-2106	Page 4 of 19
	Revision: 0	Effective Date: 10/18/2019

## 1.0 INTRODUCTION

Triad LLC, the operator for Los Alamos National Laboratory (LANL or the Laboratory), conducts stormwater monitoring activities pursuant to the National Pollutant Discharge Elimination System (NPDES), Multi-Sector General Permit (MSGP). As part of this monitoring, Environmental Protection and Compliance, Compliance Programs (EPC-CP) personnel collect stormwater discharge samples from outfalls at industrial sites and prepare them for analysis.

### 1.1 Purpose

This procedure describes the process for filtering, preserving and preparing stormwater samples for shipment to an analytical laboratory from locations where EPC-CP conducts stormwater monitoring activities required pursuant to the NPDES MSGP. This procedure may also be used for other Associate Laboratory Directorate for Environment, Safety, Health, Quality, Safeguards, and Security (ALDESHQSS) stormwater monitoring activities as needed.

### 1.2 Scope

Stormwater samples are collected in the field with either a refrigerated Avalanche® or ISCO 3700 automated sampler, single stage sampler, or by hand. When in-line filtration is not possible, sample filtration, along with chemical preservation (as required) is conducted immediately following sample retrieval in the field or in the EPC-CP Stormwater Laboratory (TA-59-01).

Sample collection, submission, and analysis is conducted using Environmental Protection Agency (EPA) and New Mexico Water Quality Control Commission guidelines. MSGP monitoring samples are collected and analyzed according to test procedures approved under Title 40 of the Code of Federal Regulations Part 136 unless other test procedures have been specified in the MSGP. Quantitation limits associated with these test procedures are sufficiently sensitive to meet MSGP limits.

### 1.3 Applicability

This procedure applies to EPC-CP technical staff and subcontractor personnel (as applicable) who conduct processing and chemical preservation of stormwater samples either in the EPC-CP Stormwater Laboratory or in the field.

The MSGP Program Lead is the primary person responsible for this procedure. EPC-CP personnel are appointed responsibility for a subset of sampling stations. Other stormwater monitoring programs or projects utilizing this procedure will refer to program or project specific roles and responsibilities.

## 2.0 PRECAUTIONS AND LIMITATIONS

The hazard level for the activities in this procedure is **LOW**. An Integrated Work Document Part II (2101 Form) will address any site-specific requirements and training for Facility Operations Divisions (FOD) if required by the FOD.

<b>Processing MSGP Stormwater Samples</b>	No: EPC-CP-QP-2106	Page 5 of 19
	Revision: 0	Effective Date: 10/18/2019

Use only sample containers that are documented to meet or exceed “US EPA Specification and Guidance for Contaminant-Free Sample Container” (Publication 9240.05A, EPA/540/R-93/051, December 1992). Never clean or re-use sample containers. Keep containers in a clean, dry place until a sample is ready for processing and transfer to the appropriate container(s).

### **3.0 PREREQUISITE ACTIONS**

#### **3.1 Planning and Coordination**

Refer to the most current revision of the MSGP or program/project specific Sampling and Analysis Plan (SAP) to determine the need for collecting quality control samples. Collect the types and quantities of quality control samples at the locations specified.

Schedule and complete stormwater processing to meet the analytical holding time requirements identified in the MSGP SAP or as requested by the MSGP Program Lead. Other stormwater monitoring programs or projects utilizing this procedure will refer to their program or project specific SAP.

The MSGP Data Manager will generate Water Sample Collection and Processing Log/Field Chain of Custody (SCPL) form(s) at the beginning of the MSGP monitoring season and/or the beginning of each MSGP monitoring quarter. The MSGP Data Manager will generate Chain of Custody/Analysis Request(s) from the Environmental Information Management (EIM) database as stormwater is collected. If the MSGP Data Manager is not available, forms will be obtained from the EPC-CP Sample Management Office (SMO).

#### **3.2 Performance Documents**

Personnel performing this procedure will be familiar with the most current versions of the following documents if the equipment or chemicals are utilized.

- Peristaltic Pump User Manual (e.g., GeoTech)
- Material Safety Data Sheet or Safety Data Sheet for preservation chemicals

#### **3.3 Special Tools, Equipment, Parts and Supplies**

Ensure the following equipment is available:

- Safety glasses with side shields
- Nitrile gloves
- Lab coat
- Eyewash in Stormwater Lab (or portable eyewash in the field)
- Water SCPL form
- Chain of Custody/Analysis Request
- EPC-CP MSGP SAP most recent revision for the current monitoring year OR project specific monitoring plan

<b>Processing MSGP Stormwater Samples</b>	No: EPC-CP-QP-2106	Page 6 of 19
	Revision: 0	Effective Date: 10/18/2019

- Sample containers (glass and poly bottles)
- Sample container lids
- Acid and base preservatives
- Clean silicon (e.g., Tygon) tubing
- Portable peristaltic pump (e.g., Geopump or equivalent)
- 0.45 micron (µm) and/or 0.10 µm cartridge filters (where applicable)
- Deionized water (where applicable)
- Paper towels
- Coolers with ice, Blue Ice®, or equivalent
- Ball point pen
- Permanent marker
- Chain-of-custody seals/tape
- Copy of this procedure
- Cell phone (only government cell phones are allowed in secure areas) (See <https://int.lanl.gov/policy/documents/P217.pdf> for requirements for using portable electronic devices on Laboratory property.

#### 4.0 PROCESSING SAMPLES

In this procedure, sample collection bottles are the bottles in which the sample was collected in the field. Sample containers are containers into which the original sample is transferred (as necessary) during processing and shipped to the analytical laboratory.

**NOTE:** Prior to performing any of the steps in the following sub-sections, ensure that you are wearing the proper clothing. Don nitrile gloves, safety glasses with side shields, and a lab coat. Confirm that the eyewash station is operational prior to processing samples.

#### 4.1 Preparation for Processing Samples

##### Sample Retriever

- [1] Arrange sample collection bottles on the workbench in order by MSGP sampling location, ensuring to distinguish bottles collected via in-line filtration from non-filtered bottles, where applicable.

#### CAUTION

Process only one sample set (i.e., samples listed on one SCPL form or samples from one location) at a time to ensure stormwater from different locations is not co-mingled.

<b>Processing MSGP Stormwater Samples</b>	No: EPC-CP-QP-2106	Page 7 of 19
	Revision: 0	Effective Date: 10/18/2019

- [2] Cross-check the Location ID (e.g., MSGP00201) on the sample bottles with the LOCATION ID on the SCPL form (see example in Attachment 1).
- [3] Ensure the pre-populated information on the SCPL form is correct. Document any changes [e.g., change FIELD MATRIX code from rain (WT) to snowmelt (WM)].
- [4] Write the following information on the SCPL.
  - [a] Sampler Inspection and Sample Retrieval form (refer to EPC-CP-QP-2103) identification number (e.g., Work Order: MSGP-xxxx);
  - [b] Date/time the sample was collected in the field (e.g., date/time automated sampler filled sample bottles or a grab sample was taken);
  - [c] Date/time the sample was retrieved from the field;
  - [d] “Not Applicable” (N/A) in the LOCATION SYNONYM(S) field unless the information is required by the SAP;
  - [e] N/A in the PRIORITY box if box is not pre-populated;
  - [f] Any pertinent information regarding sample collection and/or retrieval in the SAMPLE COMMENTS field (e.g., grab sample collected by hand, recent erosion observed up-gradient of sampler) or N/A;
  - [g] N/A for FIELD PARAMETER Sample Time (this is documented at the top of the form as COLLECTION TIME);
  - [h] pH measurement taken at the time the sample was collected in the field (if applicable) or N/A;
  - [i] Indicate if a visual assessment was performed.
    - IF a visual assessment **WAS NOT** performed, THEN write N or No in the Visual Inspection space.
    - IF a visual assessment **WAS** performed, THEN write Y or Yes in the Visual Inspection space and the identification number from the MSGP Visual Assessment form (refer to EPC-CP-QP-2105) (e.g., MSGP-xxxx).
  - [j] The printed name and signature of the person who retrieved the sample in the COLLECTED BY box and date/time the sample was retrieved from field
- [5] IF the person who retrieved the sample is processing, THEN write N/A in the first RELINQUISHED BY and RECEIVED BY boxes.
- [6] IF the person who retrieved the sample is NOT processing, THEN
  - [a] He/she will print and sign his/her name and the date/time samples are relinquished to the processor in the RELINQUISHED BY box.

<b>Processing MSGP Stormwater Samples</b>	No: EPC-CP-QP-2106	Page 8 of 19
	Revision: 0	Effective Date: 10/18/2019

- [b] The processor will print and sign his/her name and the date/time samples are received in the first RECEIVED BY box.

### Sample Processor

- [7] Ensure the following information is correct for the analysis requested on the SCPL.
  - [a] Sample container volume and type [e.g., 500 milliliter (mL) POLY].
  - [b] Preservation type (e.g., ICE, HNO<sub>3</sub>).
  - [c] Note any deviation from the planned sample container volume, type, or preservation on the SCPL.
- [8] Determine which samples require filtration and chemical preservation as requested on the SCPL.
  - [a] Mark each container lid with the 3-digit outfall ID, required analysis, filtration requirement, and preservative requirement.
 

**NOTE 2:** Requirements are also identified in the most current SAP revision.
- [9] For split samples, follow these steps:
  - [a] Turn the sample collection bottle upside down multiple times to ensure sediment is loose from the bottom of the bottle.
  - [b] Pour sample into sample containers ensuring the sample remains homogenized throughout the transfer.
- [10] Refer to Section 4.2 Filtering Samples, Section 4.3 Preserving Unfiltered and Filtered Samples, and Section 4.4 Quality Control Samples as needed.
- [11] Indicate if each sample on the SCL was collected by writing Y for Yes or N for No in the COLLECTED Y/N box.
- [12] IF the SPECIAL INSTRUCTIONS box is not pre-populated, THEN write N/A in the box.
- [13] Document any other deviations from the planned sample processing on the SCPL (e.g., turbid sample required extra filtration step, used standard deionized water in lieu of ultrapure water for field blank) under PROCESSING COMMENTS or SAMPLING COMMENTS,
 

OR write N/A.
- [14] IF no further processing is required (e.g., chemical preservation), THEN apply a chain-of-custody seal/tape around the bottle and lid and sign and date the seal/tape.
- [15] The person processing the sample will print and sign his/her name and indicate the date/time samples were processed in the PROCESSED BY box.
- [16] Proceed to Section 4.5.



<b>Processing MSGP Stormwater Samples</b>	No: EPC-CP-QP-2106	Page 9 of 19
	Revision: 0	Effective Date: 10/18/2019

## 4.2 Filtering Samples

Filter samples if specified on the SCPL or if an in-line filter was not used during sample collection.

- [1] Select the appropriate sized cartridge filter (e.g., 0.10µm or 0.45µm).
- [2] Set up the filter assembly.
  - [a] Attach an appropriate amount of silicone tubing to both ends of the cartridge filter.
  - [b] Place the filter upstream of the peristaltic pump to prevent over-pressurization.
  - [c] IF the sample contains a significant amount of sediment, THEN a pre-filter of the same size or larger micron capacity may be used.
- [3] For split filtered samples, follow these steps:
  - [a] Move the intake tube up and down through the sample during filtration.
 

**NOTE 1:** A sample collected solely for filtration can be filtered without being homogenized by gently shaking.
- [4] Replace the filter if any of the following conditions occur:
  - flow diminishes,
  - the pump begins to make a grinding sound, or
  - the tubing is forced off the filter by backpressure.
- [5] Place the lid on the container.
  - [a] Ensure the lid is securely affixed to the container.
  - [b] Add a check mark next to the filtered requirement previously marked on the lid to indicate that filtration has been completed.
  - [c] Clean and dry the exterior of sample container.
  - [d] Check sample container for leakage and breakage.
- [6] Remove and dispose of filter and tubing when filtration of one sample set (location) has been completed.
 

**NOTE 2:** A new filter must be used with each new sample set.
- [7] Return to Section 4.1, Step 11.

## 4.3 Preserving Unfiltered and Filtered Samples

Preservation entails the addition of acid or base to a sample. Acids currently used include hydrochloric acid (HCl), nitric acid (HNO<sub>3</sub>), and sulfuric acid (H<sub>2</sub>SO<sub>4</sub>). Bases currently used in preservation include sodium hydroxide (NaOH). Review the appropriate Material Safety Data Sheet or Safety Data Sheet for specific guidelines prior to preserving samples. Specific acids/bases used

<b>Processing MSGP Stormwater Samples</b>	No: EPC-CP-QP-2106	Page 10 of 19
	Revision: 0	Effective Date: 10/18/2019

depend on the required monitored parameters and are subject to change (e.g., biennial Clean Water Act §303(d)/305(b) Integrated Report updates).

#### **WARNING**

Preservatives are strong acids and bases that can cause severe burns. Take extreme care when using these acids and bases.

- [1] Review the analysis requested on the SCPL or SAP.
- [2] Select the pre-measured preservative type and size that matches the sample container size.
  - [a] IF you only have one size pre-measured preservative that does not match the sample container size, THEN you will use more than one. For example, if you have a 1-liter sample container and 500 mL pre-measured preservative vial, you will need to add two preservative vials to the sample container.

**NOTE:** Never "split" a larger volume pre-measured vial to preserve a smaller volume container (e.g., do not pipette from a 1-liter, pre-measured preservative vial to preserve a 500 mL sample). Error in measurement precision may lead to a risk of violating Department of Transportation shipping requirements.
- [3] Add the preservative (acid or base) to the sample.
  - [a] Securely affix the lid to the container.
  - [b] Agitate the preserved sample by turning the container upside down two to three times.
- [4] Add a check mark next to the preservation type previously marked on the lid to indicate that preservation has been completed.
  - [a] Clean and dry the exterior of sample container.
  - [b] Check sample container for leakage and breakage.
- [5] Return to Section 4.1, Step 11.

## **4.4 Quality Control Samples**

Refer to the SCPL or the program specific SAP for the types and quantities of quality control samples and the locations where these samples will be collected.

### **4.4.1 Field Blank Samples**

- [1] Review the analysis requested on the SCPL or SAP.
  - [a] Ensure the sample container volume, type, and preservation type is correct for the analysis requested (e.g., 500 mL POLY, HNO<sub>3</sub>).

<b>Processing MSGP Stormwater Samples</b>	No: EPC-CP-QP-2106	Page 11 of 19
	Revision: 0	Effective Date: 10/18/2019

- [b] Note any deviation from the planned sample container volume or type on the SCPL.

**CAUTION**

**DO NOT** use tap, distilled, or drinking water purchased from a local store. These sources may not meet the water quality standards specified in the New Mexico Administrative Code (Title 20, Chapter 6, Part 4).

- [2] Obtain analyte free water (e.g., High Performance Liquid Chromatography grade ultrapure in amber glass) in sealed bottle(s) in sufficient quantity to fulfill the analysis requested.
- [3] Select another empty sample container(s) of the same type and volume for the analysis requested.
- [4] Mark the bottle and container lids with the 3-digit outfall ID and "Field Blank".
- [5] Transport both the field blank bottle(s) and container(s) to the sampling location.
- [6] During retrieval of samples, open the field blank bottle(s) and pour the analyte free water into the field blank sample container(s).
- [7] Securely affix the lid(s) to the container(s).
- [8] Replace the lid on the analyte free water bottle.
  - [a] IF 500 mL or greater remain in the bottle, THEN replace lid and mark the bottle with the date it was opened and "For Decon Use Only".
  - [b] IF less than 500 mL remain in the bottle, THEN dispose of water in the EPC-CP Stormwater Laboratory sink and dispose of the bottle.
- [9] Return the field blank containers with retrieved samples to the EPC-CP Stormwater Laboratory (TA-59-01) for any further required processing.
- [10] Return to Section 4.1, Step 11 to complete sample processing.

#### **4.4.2 Field Duplicate Samples**

- [1] Review the analysis requested on the SCPL or SAP.
  - [a] Ensure the sample container volume, type, and preservation type is correct for the analysis requested (e.g., 500 mL POLY, HNO<sub>3</sub>).
  - [b] Note any deviation from the planned sample container volume, type, or preservation on the SCPL.
- [2] Field duplicate samples must be samples collected from the same location, at the same time, and in the same manner:

<b>Processing MSGP Stormwater Samples</b>	No: EPC-CP-QP-2106	Page 12 of 19
	Revision: 0	Effective Date: 10/18/2019

- Select two sample collection bottles next to each other in the automated sampler carousel.

OR

- Select one sample collection bottle to split into separate sample containers

[3] For split samples, follow these steps:

- [a] Turn the sample collection bottle upside down multiple times to ensure sediment is loose from the bottom of the bottle.
- [b] Pour sample into sample containers ensuring the sample remains homogenized throughout the transfer.

[4] Return to Section 4.1, Step 11 to complete sample processing.

#### **4.5 Handling Excess Stormwater**

Minimize the amount of stormwater sample brought into the EPC-CP Stormwater Laboratory. Field personnel will attempt to retrieve only the volumes needed to fulfill the requested analyses from the current MSGP SAP or program/project specific SAP.

- [1] IF any excess stormwater sample exists after processing has been completed, THEN perform the following steps.

##### **Sample Processor**

- [a] Ensure the container is labeled with the site of origin, date and time sample was collected, and "Return to Site."
- [b] Place the container in the designated storage location in the EPC-CP Stormwater Laboratory.

##### **EPC-CP technical staff**

- [c] Return the sample to the site of origin as soon as possible.
- [d] Discharge at the sampler location.
- [2] IF the excess stormwater has been altered (e.g., tap water or preservative added), THEN contact the TA-59-0001 Waste Management Coordinator for further instruction.

#### **4.6 Submit Samples for Shipping to Offsite Analytical Laboratory**

##### **Sample Processor**

- [1] Deliver completed SCPL(s) to the MSGP Data Manager.

##### **MSGP Data Manager**

- [2] Process the sample information in the EIM system.

<b>Processing MSGP Stormwater Samples</b>	No: EPC-CP-QP-2106	Page 13 of 19
	Revision: 0	Effective Date: 10/18/2019

- [a] Capture any documented deviations from planned conditions (as noted on the SCPLs).
- [b] Generate Chain of Custody/Analysis Request (COC) form(s) and sample container labels to reflect the processed samples (see examples in Attachments 2 and 3).

#### Sample Processor

- [3] Ensure the sample containers are securely sealed and wiped dry.
- [4] Cross-check to ensure the Sample ID on the SCPL matches the Field Sample ID on the COC.
- [5] Compare the information from the SCPL and lid of each container and apply the correct labels to the sample containers.
- [6] IF the person who processed the sample is NOT submitting the samples to the SMO, THEN
  - [a] He/she will print and sign his/her name and the date/time samples are relinquished to the submitter in the second RELINQUISHED BY box.
  - [b] The submitter will print and sign his/her name and the date/time samples are received in the second RECEIVED BY box.

#### EPC-CP technical staff

- [7] Place the sample(s) in a cooler with sufficient Blue Ice® (or equivalent) to maintain the required preservation temperature ( $\leq 4^{\circ}\text{C}$ ).  
**NOTE:** Cushioning material (e.g., bubble wrap) may be used to separate containers to avoid breakage during transport
- [8] Place the SCPL(s) and COC(s) in a zip lock type bag, seal, and place in the cooler with samples.
- [9] Transport samples to the SMO.
  - [a] Deliver samples during SMO business hours by 2pm for same day shipping.
  - [b] Coordinate with the SMO for delivery during other times or for delivery of samples that have limited holding times.
  - [c] If delivery of samples to the SMO will be delayed, place sample containers with SCPL(s) in the EPC-CP Stormwater Laboratory refrigerator and ensure the refrigerator is locked.
- [10] Complete the COC form as follows:
  - [a] On the Relinquished By line, the person submitting the sample(s) will sign and print his/her name and date/time samples are relinquished to the SMO.

<b>Processing MSGP Stormwater Samples</b>	No: EPC-CP-QP-2106	Page 14 of 19
	Revision: 0	Effective Date: 10/18/2019

- [b] The SMO personnel accepts the sample(s) by signing and printing his/her name and recording the date/time on the Received By line.
- [11] Complete the SCPL form as follows:
  - [a] Ensure all fields are filled out with sample information or N/A. Do not leave blank fields.
  - [b] In the RELINQUISHED BY box, the person submitting the sample(s) will sign and print his/her name. Sign and print your name on the SCPL in the "Relinquished By" box.
  - [c] Record the date/time that matches the data and time RELINQUISHED BY on the COC.
  - [d] Record the COC number (e.g., 2017-xxxx) in the RECEIVED BY box.
- [12] Ensure the following steps are taken:
  - [a] SMO makes a copy of the SCPL(s) to accompany the COC and samples.
  - [b] Keep the original SCPL(s) for the MSGP program.
  - [c] Make a copy of the signed Chain of Custody/Analysis Request.
- [13] Deliver the copy of the signed COC and original SCPL(s) to the MSGP Data Manager for record keeping.

## 5.0 TRAINING

All EPC-CP personnel that execute the activities specified in this procedure must meet the minimum qualification and training requirements for their position as identified EPC-CP-PIP-2101, NPDES Multi-Sector General Permit Program. This will include “self-study” (required reading) for this procedure as assigned and documented in accordance with ENV-DO-QP-115, *Personnel Training*. Other participating LANL groups may require training documentation pursuant to local procedures.

Contract personnel that execute the activities specified in this procedure will be qualified and trained as required by the Exhibit D and Exhibit F. In addition, contract personnel will be required to complete “self-study” (required reading) of this procedure.

Personnel performing this procedure will be familiar with the most current versions of the following procedures and operation manuals:

- EPC-CP MSGP SAP for the current monitoring year
- EPC-CP-QP-2103 Inspecting Stormwater Runoff Samplers and Retrieving Samples for the MSGP

## 6.0 RECORDS

EPC-CP is the Office of Record for this document and must be maintained in accordance with [PD1020](#), *Document Control and Records Management* and ADESH-AP-006, *Records Management*

<b>Processing MSGP Stormwater Samples</b>	No: EPC-CP-QP-2106	Page 15 of 19
	Revision: 0	Effective Date: 10/18/2019

*Plan.* Records generated by this document will be submitted to the Records Management designated point of contact or document manager for document management.

Below are records generated as a result of implementing this procedure. Records generated are identified by title and type.

Record Title	QA Record	Non-QA Record
*Water Sample Collection and Processing Log/Field Chain of Custody	<input checked="" type="checkbox"/>	<input type="checkbox"/>
*Chain of Custody/Analysis Request	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Copy of log book entry(s) (if a log book is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other pertinent field or lab notes (if additional notes are required)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

\*The original document is part of the data package QA records for the SMO. MSGP retains a copy for tracking purposes only.

## 7.0 DEFINITIONS AND ACRONYMS

### 7.1 Definitions

See LANL [Definition of Terms](#).

### 7.2 Acronyms

See LANL [Acronym Master List](#).

COC	Chain of Custody/Analysis Request
EIM	Environmental Information Management
EPA	Environmental Protection Agency
EPC-CP	Environmental Protection and Compliance – Compliance Programs
LANL	Los Alamos National Laboratory
µm	Micron
mL	Milliliter
MSGP	Multi-Sector General Permit
N/A	Not Applicable
NPDES	National Pollutant Discharge Elimination System
SAP	Sample Analysis Plan
SCPL	Water Sample Collection and Processing Log/Field Chain of Custody
SMO	Sample Management Office

## 8.0 REFERENCES

None.



<b>Processing MSGP Stormwater Samples</b>	No: EPC-CP-QP-2106	Page 16 of 19
	Revision: 0	Effective Date: 10/18/2019

## 9.0 ATTACHMENTS

**Attachment 1:** *Water Sample Collection and Processing Log/Field Chain of Custody Example*

**Attachment 2:** *Sample Container Labels Example*

**Attachment 3:** *Chain of Custody/Analysis Request Example*

Processing MSGP Stormwater Samples	No: EPC-CP-QP-2106	Page 17 of 19
	Revision: 0	Effective Date: 10/18/2019

## Attachment 1: Water Sample Collection and Processing Log/Field Chain of Custody Example

(Page 1 of 1)

Los Alamos National Laboratory

### WATER SAMPLE COLLECTION AND PROCESSING LOG/FIELD CHAIN OF CUSTODY

**EVENT ID:** 11743 **EVENT NAME:** MSGP 2018  
**SAMPLE ID:** MSGP-18-153015 **WORK ORDER:** MSGP-12345  
**COLLECTION DATE/TIME:** 07/01/18 16:03 **RETRIEVAL DATE/TIME:** 07/03/18 09:25  
**LOCATION ID:** MSGP04301 **SAMPLER TYPE:** APS-R  
**LOCATION TYPE:** WCS **SAMPLE PREP:** UF  
**LOCATION SYNONYM(S):** N/A **FIELD QC TYPE:** REG  
**FIELD MATRIX:** WT **SAMPLE USAGE:** COMP

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS	PROCESSING COMMENTS
N/A	MSGP-TSS	250 500 ML POLY to 7/1/18	1	ICE	X	N/A	N/A

**SAMPLE COMMENTS:** N/A

#### FIELD PARAMETERS:

Sample Time N/A HH:MM pH 6.2 SU Visual Inspection Y SU  
 Visual Inspection WO# MSGP-67890

COLLECTED BY (Printed Name) Jane Doe (Signature) <i>[Signature]</i>	Date/Time 07/03/18 09:25		
RELINQUISHED BY (Printed Name) Jane Doe (Signature) <i>[Signature]</i>	Date/Time 07/03/18 10:05	RECEIVED BY (Printed Name) John Smith (Signature) <i>[Signature]</i>	Date/Time 07/03/18 10:05
PROCESSED BY (Printed Name) John Smith (Signature) <i>[Signature]</i>	Date/Time 07/03/18 13:00		
RELINQUISHED BY (Printed Name) John Smith (Signature) <i>[Signature]</i>	Date/Time 07/04/18 08:35	RECEIVED BY (Printed Name) See COC # (Signature) 2017-1326	Date/Time
RELINQUISHED BY (Printed Name) N/A (Signature)	Date/Time	RECEIVED BY (Printed Name) N/A (Signature)	Date/Time

Report Date: 08/01/2018

<b>Processing MSGP Stormwater Samples</b>	No: EPC-CP-QP-2106	Page 18 of 19
	Revision: 0	Effective Date: 10/18/2019

## Attachment 2: Sample Container Labels Example

(Page 1 of 1)

Los Alamos National Laboratory	
Sample ID: MSGP-17-131786	
Container: 500 ML POLY	1 of 1
Preservative: HNO3 ICE	
Analysis: NPDES-AI-Total Recoverable	
Date: 04/01/2017	Time: 16:03

Los Alamos National Laboratory	
Sample ID: MSGP-17-131787	
Container: 500 ML POLY	1 of 1
Preservative: HNO3 ICE	
Analysis: NPDES-AI-Total Recoverable	
Date: 04/01/2017	Time: 16:03


<b>Processing MSGP Stormwater Samples</b>	No: EPC-CP-QP-2106	Page 19 of 19
	Revision: 0	Effective Date: 10/18/2019

### Attachment 3: Chain of Custody/Analysis Request Example

(Page 1 of 1)

[illegible]

**Attachment 21: EPC-CP-QP-0903, ENVIRONMENTAL REPORTING REQUIREMENTS FOR RELEASES OR  
EVENTS**

<b>EPC-CP-QP-0903</b>	Revision: <b>0</b>	
Effective Date: 08/10/2021	Next Review Date: 08/10/2024	

**Environment, Safety, Health, Quality, Safeguards, and Security Directorate**  
**Environmental Protection and Compliance – Compliance Programs Group**  
**Quality Procedure**

## Environmental Reporting Requirements for Releases or Events

<b>Hazard Grading:</b>	<input checked="" type="checkbox"/> Low	<input type="checkbox"/> Moderate	<input type="checkbox"/> High/Complex
<b>Usage Level:</b>	<input checked="" type="checkbox"/> Reference	<input type="checkbox"/> UET	<input type="checkbox"/> Mixed: UET Sections: _____
<b>Status:</b>	<input checked="" type="checkbox"/> New	<input type="checkbox"/> Major Revision	<input type="checkbox"/> Minor Revision
	<input type="checkbox"/> Review w/No Changes	<input type="checkbox"/> Other: _____	
<b>Safety Basis:</b>	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> USQ	<input type="checkbox"/> USI Number: _____

### Document Author/Subject Matter Expert:

Name:	Organization:	Signature:	Date:
Steve Pearson	EPC-CP	Signature on File	08-10-21

### Derivative Classifier: ☒ Unclassified or ☐ \_\_\_\_\_

Name:	Organization:	Signature:	Date:
Steve Wolfel	EPC-CP	Signature on File	08-10-21

### Approval Signatures:

EPC-WMP Reviewer:	Organization:	Signature:	Date:
Patrick Padilla, Team Leader	EPC-WMP	Signature on File	08-10-21
EPC-CP RLM:	Organization:	Signature:	Date:
Taunia Jean Sandquist, Group Leader	EPC-CP	Signature on File	08-10-21

*This copy is uncontrolled.*

*Users are responsible for ensuring they work to the latest approved version.  
To document a required read, Login to [UTrain](#), and go to the Advanced Search.*

<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 2 of 27
	Revision: 0	Effective Date: 08/10/2021

#### REVISION HISTORY

<b>Document Number and Revision</b> <i>[Include revision number, beginning with Revision 0]</i>	<b>Effective Date</b> <i>[Document Control Coordinator inserts effective date]</i>	<b>Description of Changes</b> <i>[List specific changes made since the previous revision]</i>
0	02/09	New document
1	4/10	Revision and update
ENV-DO-QP-101 R2	6/12	Biennial Review/Revision, new template implemented.
EPC-DO-QP-101 R3	08/07/17	Revision and update. This document replaces ENV-DO-QP-101 R2. New document number reflects organizational name change.
EPC-CP-QP-0903 R0	08/10/2021	This document replaces EPC-DO-QP-101, R3. This update includes updating appropriate sections to reflect regulations and organizational changes. Implements new EPC-CP template and document number.



<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 3 of 27
	Revision: 0	Effective Date: 08/10/2021

## Table of Contents

Revision History .....	2
1.0 Introduction .....	4
1.1 Purpose .....	4
1.2 Scope .....	4
1.3 Applicability .....	4
2.0 Precautions and Limitations .....	4
3.0 Prerequisite Actions.....	4
3.1 Planning and Coordination.....	4
3.2 Collaboration with other Subject Matter Experts (SMEs).....	5
4.0 Process Description .....	5
4.1 Reporting Releases to Pueblo Environment Departments .....	5
4.2 Responsibility of On-Call Representatives .....	6
4.3 Follow-up Reporting.....	6
4.4 Summary of Policy Reporting.....	7
4.5 Using this procedure .....	7
4.5.1 Determining if a Release is Reportable under RCRA.....	8
4.5.2 Determining if a Release is Reportable under TSCA .....	8
4.5.3 Determining if a Release is reportable under the CWA NMWQA, and NMWQCC.....	9
4.5.3.1 Reporting Requirements for Petroleum Storage Tanks .....	11
4.5.3.2 Reporting Requirements under the NPDES Pesticide General Permit .....	11
4.5.4 Determining if a Release is Reportable under CERCLA or EPCRA .....	13
4.5.4.1 Regulatory Classification of the Released Material.....	14
4.5.5 Determining Release Impacts to Biological or Cultural Resources.....	15
4.5.6 Reporting a Release or Event.....	16
4.5.7 Steps to Notify LANL Management, the Laboratory Tribal Liaison, and Department of Energy Los Alamos Field Office (NA-LA).....	17
5.0 Training .....	18
6.0 Records .....	18
7.0 Definitions and Acronyms.....	19
7.1 Definitions .....	19
7.2 Acronyms.....	20
8.0 References .....	22
9.0 Appendices .....	23
10.0 Attachments .....	23
Attachment 1: Emergency Notification Requirements for RCRA .....	24
Attachment 2: Summary of Emergency Release or Event Reporting Requirements .....	25

<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 4 of 27
	Revision: 0	Effective Date: 08/10/2021

## 1.0 INTRODUCTION

This Environmental Protection and Compliance – Compliance Programs (EPC-CP) 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 Program*, and [P322-3](#), *Performance Improvement from Abnormal Events*. Environmental reporting requirements regarding releases or other events are included in this procedure.

### 1.1 Purpose

This procedure describes the actions that must be performed within the first 24-hours of the release. This procedure does **not** cover the response procedures for “continuous releases” under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Emergency Planning and Community Right-to-Know Act (EPCRA) (see definitions) nor the follow-up notifications and reports.

### 1.2 Scope

This procedure describes the separate environmental pathway processes that determine if a release or event at Los Alamos National Laboratory (LANL or the Laboratory) is reportable.

### 1.3 Applicability

This procedure applies to EPC-DO on-call representatives and subject matter experts (SMEs) who must respond to any release, spill, or event at the Laboratory that may require immediate notification to local, state or federal regulatory agencies.

## 2.0 PRECAUTIONS AND LIMITATIONS

The work described in this procedure includes fieldwork that does not require an Integrated Work Document (IWD), has a **LOW hazard** rating and has been analyzed by an SME, the EPC-CP group leader and the responsible line manager (RLM), and is consistent with LANL [P300](#), *Integrated Work Management* (IWM).

Actions specified within this procedure, unless preceded with “should” or “may,” are to be considered mandatory (i.e., “shall”, “will”, “must”).

## 3.0 PREREQUISITE ACTIONS

None.

### 3.1 Planning and Coordination

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

<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 5 of 27
	Revision: 0	Effective Date: 08/10/2021

radiological spills, wastewater spills, potable water discharges, and other unplanned releases at the Laboratory.

On a quarterly basis, EPC-CP 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 Deputy Directorate for Operations (DDOPS), Associate Directorate for Environment, Safety, and Health, Quality, Safeguards & Security (ESHQSS), Emergency Operations Center (EOC), Environmental Protection and Compliance Division – Compliance Programs Group (EPC-CP), and the Environmental Stewardship Group (EPC-ES).

**Note:** the on-call list should also be available on the LANL internal website. Environmental Home page, Environmental Contacts – On-Call Schedule. The on-call representative can be reached by pager at 505-664-7722.

### **3.2 Collaboration with other Subject Matter Experts (SMEs)**

If needed, coordinating with other on-call SMEs and the EOC to ensure the required notifications for environmental reporting and abnormal events are being addressed for the Laboratory.

## **4.0 PROCESS DESCRIPTION**

### **4.1 Reporting Releases to Pueblo Environment Departments**

The Memorandum of Agreement between the U.S. Department of Energy through the Los Alamos Field Office of the National Nuclear Security Administration (NNSA), the Office of Environmental Management (EM), and the Pueblo de San Ildefonso strengthens the existing relationship between the parties as evidenced in the Restatement of 2005 Accord (MOA). It provides the foundation and framework for the parties to address and resolve specific issues of mutual concern. This MOA requires both DOE field offices (NNSA and EM) and its contractors to follow the protocols between the parties.

The Cooperative Agreements between the Pueblos of Cochiti, Jemez, and Santa Clara and the Los Alamos National Laboratory establish trust relationships with the Pueblos to resolve issues of mutual concern. To the extent funding is available and as otherwise agreed to in writing by Triad and the Pueblos, Triad will provide in-kind technical assistance to the Pueblos in areas of economic development, education, cultural resources, the environment, and emergency preparedness and response.

In the event of a release that impacts or may potentially impact Pueblo lands, notification to the impacted Pueblo Environment Department will be coordinated through the Laboratory's Tribal Liaison (505-629-2198) who will contact and notify the Department of Energy (DOE) Los Alamos Field Office (NA-LA) Intergovernmental Specialist to notify the Pueblos pursuant to protocols. If the release is identified to be an emergency where activation of the EOC is necessary, the LANL Emergency Response Organization will be responsible for contacting the affected Pueblos in accordance with [PD1200](#), *Emergency Management Program*.

A list of Pueblo contacts is kept at the Laboratory's Tribal Liaison's office.

<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 6 of 27
	Revision: 0	Effective Date: 08/10/2021

## 4.2 Responsibility of On-Call Representatives

**The EPC on-call representative is the party primarily responsible for:**

- 1) Responding to any notifications received on the Spills/Unplanned Release pager.
- 2) Determining if the incident will require immediate notification to external agencies in accordance with LANL, state, and federal regulatory reporting requirements.
- 3) Notifying EPC Division management of immediate reporting requirements.
- 4) In the event that the release is a non-emergency and Pueblo lands are impacted, notification to the impacted Pueblo Environment Department will be coordinated through the Laboratory's Tribal Liaison (505-629-2198) who will contact and notify the Department of Energy (DOE) Los Alamos Field Office (NA-LA) Intergovernmental Specialist to notify the Pueblos and the Office of Environmental Management if necessary.

**The EPC on-call representative is not responsible for the following and EOC will make these determinations:**

- 1) If the Resource Conservation Recovery Act (RCRA) Contingency Plan must be implemented.
- 2) If a shock-sensitive material, leaking, or compromised gas cylinder constitutes an emergency.
- 3) If the release is associated with an emergency where activation of the EOC is necessary, and if so, contacting the affected Pueblos in accordance with [PD1200](#), *Emergency Management Program*.

However, in order to ensure that the appropriate expertise is available for the affected media, the EPC on-call representative may immediately confer with an SME of the EPC group that has programmatic responsibility. If an SME from the responsible group is able to respond to the event, the remaining steps in this procedure may be passed to that person. See the link for EPC Contacts: [Environmental Protection and Waste Management Contacts list](#).

**Note:** The Pueblo Environmental Department(s) notification process will be implemented in parallel with regulatory- or permit-driven reporting. In the event of a conflict between the two reporting needs, this process is second priority.

## 4.3 Follow-up Reporting

This procedure describes the initial external notifications (within the first 24 hours) to regulatory agencies. After completion of the steps in this procedure, the EPC group or team specifically responsible for compliance with the relevant regulations will complete the required notifications and reports, as applicable under the appropriate regulations, according to established procedures.

<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 7 of 27
	Revision: 0	Effective Date: 08/10/2021

#### 4.4 Summary of Policy Reporting

The EPC on-call representative and spill response SMEs have the authority and responsibility for deciding when to report an event and for making notifications to regulatory agencies within the applicable regulatory deadlines.

LANL management and Department of Energy (DOE) Los Alamos Field Office (NA-LA) must be informed as soon as possible that a report was or will be made, but their approval is not required prior to the report being made to the regulatory agency. LANL Facility Operations Director (FOD) management, with input from EPC SMEs, will determine if an Occurrence Reporting Processing System (ORPS) report or other type of Lessons Learned will be necessary.

**NOTE:** EOC maintains a current list of on-call LANL managers.

#### 4.5 Using this procedure

This procedure has seven separate paths (and corresponding sections) to follow for determining if a release or event is reportable. Follow each of these paths to determine if one or more are applicable:

- [1] Resource Conservation and Recovery Act (RCRA)
- [2] Toxic Substances Control Act (TSCA)
- [3] Clean Water Act (CWA), New Mexico Water Quality Act (NMWQA), and New Mexico Water Quality Control Commission (NMWQCC) Regulations
- [4] Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Emergency Planning and Community Right-to-Know Act (EPCRA)
- [5] Clean Air Act (CAA)
- [6] Biological
  - [a] Endangered Species Act
  - [b] Bald and Golden Eagle Protection Act
  - [c] Migratory Bird Treaty Act
  - [d] New Mexico Wildlife Conservation Act
- [7] Cultural
  - [a] National Environmental Policy Act (NEPA)
  - [b] National Historic Preservation Act
  - [c] Native American Graves Protection and Repatriation Act
  - [d] Archaeological Resources Protection Act

<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 8 of 27
	Revision: 0	Effective Date: 08/10/2021

Each release needs to be evaluated for all potential reporting requirements. For example, a Reportable Quantity (RQ), defined under CERCLA or EPCRA may not be met, **but the release may be reportable** under RCRA, New Mexico Water Quality Control Commission (NMWQCC), and/or Clean Water Act (CWA) requirements.

**NOTE:** The 24-hour deadline (immediate in some cases) applies regardless of whether it occurs during business hours, after business hours or on non-business days.

#### ***4.5.1 Determining if a Release is Reportable under RCRA***

Follow the flow chart in Attachment 1 to determine if an event is reportable under RCRA regulations.

Under the RCRA permit No. NM0890010515-1 requirements, the EOC manager determines if the “RCRA Contingency Plan” provisions should be implemented. The EPC on-call representative or an EPC Waste Management Programs (EPC-WMP) RCRA SME performs notifications that may be required.

The EOC Manager will normally attempt to contact an EPC-WMP SME for guidance in making this decision. If the EPC-WMP SME is successfully contacted, the remaining steps for determining if a release is reportable under RCRA may be passed on to this individual.

The EPC on-call representative makes the determination that one or more of these conditions occurred through consultation with EPC-WMP and appropriate SMEs. The 24-hour notification can be made by the EPC on-call representative or by an EPC SME.

The EOC manager makes the determination that unstable chemicals, leaking, or compromised gas cylinders represent an emergency situation. The EOC manager works with EPC-WMP to ensure that 24-hour notifications are made by the on-call representative or EPC-WMP SME.

If a release/event is reportable under RCRA rules, determine if the release/event is reportable under other rules and proceed to Section 4.4.5 Reporting a Release or Event.

#### ***4.5.2 Determining if a Release is Reportable under TSCA***

In practice, only spills of Polychlorinated Biphenyls (PCBs) or PCB-suspect untested mineral oil to the environment (generally outdoors or with the potential to reach the outdoors) are reportable. Spills that are contained indoors are generally not reported.

A discharge of PCBs is reportable to the Environmental Protection Agency (EPA) under TSCA if 1 pound of PCBs by weight is released in accordance with [40 CFR 761.125\(a\)\(1\)](#), *Requirements for PCB spill cleanup*. Notify the EPA regional office and proceed with the immediate clean-up requirements noted in [40 CFR 761.125\(a\)\(1\)](#) in the shortest possible time after discovery, but in no case later than 24-hours after discovery. Additionally, reporting requirements are triggered if over 270 gallons of untested mineral oil suspected of containing PCBs has been spilled.

Follow the steps in Section 4.5.4, *Determining if a Release is Reportable under CERCLA, EPCRA, or Other Regulations* to determine if the RQ for PCBs has also been exceeded.

<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 9 of 27
	Revision: 0	Effective Date: 08/10/2021

There are six items containing PCBs that are out of service at the Chemistry and Metallurgy Research (CMR) Building. They are scheduled for removal within the next year or so. All other known PCB equipment at the Laboratory have been taken out-of-service and disposed of in accordance with TSCA regulations.

If a release is reportable under TSCA, continue through the next sections to determine if the release/event is reportable under other rules and proceed to *Reporting a Release or Event* and determine if additional reporting is necessary.

<b>If the spill is ...</b>	<b>Then...</b>
equal to or over 1 pound by weight of PCBs (TSCA) or greater than 270 gallons of untested mineral oil suspected of containing PCBs	Report to the National Response Center (1-800-242-8802) immediately (within 15 minutes of discovery). Additionally, contact EPA Region 6 (Office of Prevention, Pesticides and Toxic Substances Branch) through EPA's 24-hour spill response number 866-372-7745 as soon as possible after discovery, but no later than 24-hours after discovery.

#### **4.5.3 Determining if a Release is reportable under the CWA NMWQA, and NMWQCC**

##### **20.6.2.1203 New Mexico Administrative Code (NMAC) Reporting**

The NM Water Quality Act (NMWQA) does not use Reportable Quantities (as described in the next section). Instead, the NM Water Quality Control Commission (NMWQCC) regulations state, *"With respect to any discharge from any facility of oil or other water contaminant, in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property, notifications (to the New Mexico Environment Department (NMED)) and corrective actions are required."*

The above rule requires the use of professional judgment to determine the magnitude and extent of the release and ultimately if external reporting is required. While no quantifiable metric is available to assist in making this determination, in general if any of the following three conditions are met external reporting will be completed:

- 1) more than 10-gallons of oil or other liquid is released,
- 2) if any volume of oil or other liquid reaches a watercourse, or
- 3) if it adversely impacts a Solid Waste Management Unit (SWMU) or Area of Concern (AOC), for example, requiring excavation or causing erosion.

The EPC on-call representative or SME has the authority and responsibility to make this determination.

Additionally, unplanned releases of potable water or steam condensate require reporting pursuant to [20.6.2.1203](#) if the release does not reach a watercourse, or if it adversely impacts a SWMU or AOC, as directed in the LANL Liquid Discharge Reporting Guidance (Decision Tree), dated March 10, 2009.



<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 10 of 27
	Revision: 0	Effective Date: 08/10/2021

Consult with the Triad LLC, EPC-WMP Consent Order Site coordinator to confirm the location and to determine if there are potential impacts to SWMUs or AOCs from any releases that may occur.

### ***Groundwater Discharge Permit Reporting***

The Laboratory has three current or draft Groundwater Discharge Permits (DPs) that include notification and reporting requirements in the event of an unpermitted discharge. Spills of **any volume** associated with any of the Groundwater DPs require reporting to NMED pursuant to [20.6.2.1203 NMAC](#).

**1) DP-857: Sanitary Waste Water System (SWWS) Plant, Sanitary Effluent Reclamation Facility (SERF), and Sigma Mesa Evaporation Basins. Permit Condition No. 44.**

The unauthorized release of untreated and treated sanitary wastewater, reuse wastewater, blended wastewater, and reject wastewater would be subject to reporting under Condition No. 44.

**2) DP-1589: Septic Tank/Disposal Systems. Permit Condition No. 23.**

The unauthorized release of untreated wastewater, septage, treated wastewater surfacing from failing disposal systems (leach fields), and treated wastewater surfacing from overflowing septic tanks would be subject to reporting under Condition No. 23.

**3) DP 1132: Radioactive Liquid Waste Treatment Facility (RLWTF). Permit Condition No. 38.**

In the event of a release unauthorized in this Discharge Permit, the Permittees shall take measures to mitigate damage from the unauthorized discharge and initiate the notification and corrective actions required in [20.6.2.1203 NMAC](#) under Condition No. 38.

### ***Clean Water Act Reporting***

Oil discharges (film/sheen/dicoloration) to water in stream channels must also be reported to the National Response Center (NRC) immediately (within 15 minutes of discovery) pursuant to [40 CFR 110.6, Discharge of Oil](#).

### ***National Pollutant Discharge Elimination System (NPDES) Outfall Reporting***

The EPC-DO on-call SME must provide notification to the NPDES Outfall Permit Program Lead and/or the EPC-CP Water Quality Team Leader in the event of a leak, unplanned release, overflow, or bypass of treatment from an NPDES permitted outfall and/or the sources upon discovery in order to meet applicable reporting requirements (i.e., 24-hr and 5-day written). Outfall sources include, but are not limited to, the following:

- 1) Sanitary Waste Water System (SWWS) equipment, tanks, lift stations, septic tanks, and piping.
- 2) Sanitary Effluent Reclamation Facility (SERF) equipment, tanks, lift stations, and piping.
- 3) Radioactive Liquid Waste Treatment Facility (RLWTF) equipment, tanks, lift stations, and piping.

<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 11 of 27
	Revision: 0	Effective Date: 08/10/2021

- 4) High Explosives Waste Treatment Facility (HEWTF) equipment, tanks, and piping.
- 5) Cooling towers.
- 6) Storage tanks (i.e., influent, effluent, reuse tank).
- 7) Other water treatment equipment and piping.

#### **4.5.3.1 Reporting Requirements for Petroleum Storage Tanks**

As defined in [20.5.118 NMAC](#), *Environmental Protection, Petroleum Storage Tanks - Reporting Investigations of Suspected and Confirmed Releases*, the NMED requires verbal reporting within 24-hours of a petroleum product release from regulated tanks to the NMED Petroleum Storage Tank Bureau (PSTB) when there is:

- 1) any suspected or confirmed release of regulated substances
- 2) evidence of release of regulated substances
- 3) unusual operational conditions (that would cause concern about a release)
- 4) monitoring results that show loss from the system

Regulated tanks include those with a capacity between 1,320 gallons and 55,000 gallons. Regulated substances for Aboveground Storage Tanks (AST) includes, but is not limited to, petroleum and petroleum-based substances comprised of a complex blend of hydrocarbons derived from crude oil through processes of separation, conversion, upgrading and finishing, such as motor fuels (including ethanol-based motor fuels), jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

Notice of any suspected or confirmed release from a storage tank system needs to be completed within 24 hours. Contact the EPC-CP AST Program Leader and/or the EPC-CP Water Quality Team Leader prior to completing any external notifications. The PSTB can be reached at 505-476-4397 (Santa Fe PSTB District 2) during business hours and 505-827-9329 (NMED Emergency Spill Hotline) during non-business hours. The NRC must be contacted at (800) 424-8802 immediately if oil or a sheen of oil from a spill or release hits a watercourse. A written report describing the spill, release or suspected release and any investigation or follow-up action needs to be submitted to the PSTB within 7 days of the incident.

If a facility discharges greater than 1,000 gallons of oil in a single discharge or discharges more than 42-gallons of oil in each of two discharges, as described in 40 CFR 112.1(b) and occurring within any twelve month period, the facility shall submit a report to the EPA Regional Administrator within 60 days of the discharge per 40 CFR 112.4.

#### **4.5.3.2 Reporting Requirements under the NPDES Pesticide General Permit**

Adverse incidents require reporting to the EPA under the NPDES Pesticide General Permit (PGP). An adverse incident is defined as an unusual or unexpected incident resulting from pesticide

<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 12 of 27
	Revision: 0	Effective Date: 08/10/2021

applications that an operator has observed upon inspection or of which the operator otherwise becomes aware, in that:

- 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:

- [a] Distressed or dead juvenile and small fishes
- [b] Washed up or floating fish
- [c] Fish swimming abnormally or erratically
- [d] Fish lying lethargically at water surface or in shallow water
- [e] Fish that are listless or nonresponsive to disturbance
- [f] Stunting, wilting, or desiccation of non-target submerged or emergent aquatic plants
- [g] Other dead or visibly distressed non-target aquatic organisms (amphibians, turtles, invertebrates, etc.)

The phrase toxic or adverse effects also includes any adverse effects to humans (e.g., skin rashes) or domesticated animals that occur either from direct contact with or as a secondary effect from a discharge (e.g., sickness from consumption of plants or animals containing pesticides) to Waters of the United States that are temporally and spatially related to exposure to a pesticide residue (e.g., vomiting, lethargy).

If an operator observes or otherwise becomes aware of an adverse incident due to pesticide application, the operator must notify the EPA Incident Reporting contact within 24 hours of the operator becoming aware of the adverse incident. EPA Incident Reporting Contacts are listed at <https://www.epa.gov/npdes/pesticide-permitting>.

If an operator becomes aware of an adverse incident affecting a federally listed threatened or endangered species or its federally designated critical habitat, that may have resulted from a discharge from the operator's pesticide application, the operator must immediately (within 15 minutes of discovery) notify the U.S. Fish and Wildlife Service. This notification must be made by phone to the contact listed on the EPA's website (<https://www.epa.gov/npdes/pesticide-permitting>).

<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 13 of 27
	Revision: 0	Effective Date: 08/10/2021

#### **4.5.4 Determining if a Release is Reportable under CERCLA or EPCRA**

Under CERCLA or EPCRA, the RQ is the threshold that requires immediate regulatory notification of a release. An RQ is based on the quantity of chemical released within any 24-hour period. Information on the RQ program as implemented by the DOE is on the web at:

<https://www.energy.gov/ehss/services/environment/environmental-policy-and-assistance/reportable-quantity-calculator>

- 1) In the event of a release, determine the quantity released in pounds or kilograms for hazardous substances, or in curies for a release of radioactive material.
- 2) Compare the released value with the RQ threshold.
  - [a] CERCLA RQs of hazardous substances are listed in [40 CFR 302.4](#), *Designation of Hazardous Substances*. Hazardous substances and their RQs are listed in Table 302.4, and radionuclides are listed in [40 CFR 302.4, Appendix B](#). The DOE has also approved use of an on-line "Reportable Quantity Calculator" that can be used to assist in this determination. The RQ calculator is located at: <https://rqcalculator.projectenhancement.com/>
  - [b] If a hazardous material is not listed in the statute, the RQ has been set by Congress to be 100 pounds. For radionuclides, the RQ is 1 curie for radionuclides not otherwise listed.
  - [c] For mixtures of hazardous materials and/or radionuclides, or when the hazardous material table and radionuclide table are in conflict, the lowest RQ shall apply.
  - [d] If an RQ is met or exceeded, an immediate (within 15 minutes of discovery) notification must be made to the NRC (1-800-424-8802) pursuant to [40 CFR 302.6](#), *Notification of Requirements*.
  - [e] If a release of an airborne radionuclide exceeds an RQ listed in Appendix B to [40 CFR 302.4](#), verbally notify the EPA Region 6 Health Physicist after the NRC notifications have been completed. The EPA Region 6 Health Physicist can be reached at:  
Office-(214) 665-8541; Mobile-(214) 755-1530; Home-(972) 937-1900.  
  
The team leader for Radioactive Air Emissions Management (RAEM) in EPC-CP can provide assistance with determining RQs and releases for radioactive material releases and with notifying EPA Region 6.
  - [f] If an RQ is not exceeded, notify the appropriate media SME so they can perform any required follow-up notification and documentation with the appropriate regulatory agency.
- 3) Additional notifications under EPCRA must be made if a release of a hazardous or extremely hazardous substance listed in [40 CFR 355](#) Appendices A and B occurs.

<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 14 of 27
	Revision: 0	Effective Date: 08/10/2021

- [a] If an extremely hazardous substance is not listed in the statute, the RQ has been set by Congress to be 1 pound.
- [b] If the released quantity meets or exceeds the RQ established under EPCRA, in addition to notifying the NRC above, an immediate (within 15 minutes of discovery) notification must be made to the Local Emergency Planning Committee (LEPC) community emergency coordinator and to the State Emergency Response Commission (SERC) (see Attachment 2 for contact information).

The lists of CERCLA hazardous substances and EPCRA extremely hazardous substances are two separate lists that include a number of common substances. However, not all extremely hazardous substances are listed hazardous substances. In some instances, a release of an extremely hazardous substance may be reportable under EPCRA, but not reportable under CERCLA.

Releases that occur within a closed space with no emissions to the ambient environment are exempt from CERCLA and EPCRA reporting requirements.

**NOTE:** Response procedures for “Continuous Releases” are not covered in this procedure.

#### **4.5.4.1 Regulatory Classification of the Released Material**

The on-call EPC SME will determine the regulatory classification of the substance released with respect to the hazard classifications:

- 1) Extremely Hazardous Substance (EHS) and/or Hazardous Substance (HS)

Often during the course of an emergency, complete information will not be available regarding type and amount of material released. In this case, best professional judgment must be used to establish the level of confidence associated with the estimates. If the uncertainty is high enough that future estimates may require reporting, it is best to be conservative and report the release following the reporting requirements detailed in Section 4.5.6, *Reporting a Release or Event*.

After determining the RQ of a released material, the EPC on-call representative or SME will perform the following steps to determine if an RQ has been exceeded.

- 1) Obtain an estimate of the quantity and type of material released (e.g., 4 pounds of chlorine gas or 150 curies of tritium).
- 2) Compare this quantity against the RQs provided in [40 CFR Table 302.4](#) and [40 CFR 355, Appendices A and B](#).

If this is an airborne release of radioactive materials that meets or exceeds the RQ, immediate (within 15 minutes of discovery) reporting to the NRC and the EPA Region 6, Regional Health Physicist is required. Note that for radioactive materials, the RQ is provided in activity units (curies or becquerels). Also, note that some materials have an RQ value for both chemical exposure (Table 302.4) and for radiological exposure (Appendix B to 302.4). In these cases, the RQ applying to the smallest quantity of material will apply.

<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 15 of 27
	Revision: 0	Effective Date: 08/10/2021

For all radioactive material releases, a radiological dose assessment must also be performed within 24-hours of the release. This dose assessment should be made by an environmental health physicist in EPC-CP or EPC-ES. The on-call individual should contact an EPC health physicist for this evaluation.

**Immediate evaluation – RQ comparison (of a radioactive material release)**

- [a] **If the release...**Is equal to or greater than the RQ then Proceed to Section 4.5.6 Reporting a Release or Event.
  - [b] **If the release...**Is less than the RQ, then No immediate reporting is required. Contact an environmental health physicist in EPC-CP or EPC-ES to complete follow-up dose assessment.
- 4) If this is a release of non-rad material, it is reportable if the RQ is exceeded:
- [a] **If the amount released is...**Equal to or greater than the RQ, then proceed to Section 4.5.6 Reporting a Release or Event.
- 5) Continue to re-evaluate the release as new data becomes available. Perform Steps 1 through 4 as necessary.

**4.5.5 Determining Release Impacts to Biological or Cultural Resources**

There are laws and regulations related to the protection of biological and cultural resources that are applicable to the Laboratory. These laws and regulations include:

- 1) National Environmental Policy Act (NEPA)
- 2) Endangered Species Act
- 3) Bald and Golden Eagle Protection Act
- 4) Migratory Bird Treaty Act
- 5) New Mexico Wildlife Conservation Act
- 6) National Historic Preservation Act
- 7) Native American Graves Protection and Repatriation Act
- 8) Archaeological Resources Protection Act

The EPC-CP SME is responsible for contacting a biological resources SME and a cultural resources SME within one business day from when a release/event occurs. This allows biological and cultural resources staff to report to their regulators within the required timeframe, identify if additional requirements are necessary for clean-up activities, and complete any other associated compliance regulations. The cultural resources SME will identify if there are impacts from the release/event to archaeological sites or historic buildings/structures.

<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 16 of 27
	Revision: 0	Effective Date: 08/10/2021

Additionally, if there is a release of contaminants to a wetland, or impacts to the beneficial values of a wetland, the EPC on-call representative will coordinate with other EPC SMEs for applicable federal and state notifications and required actions as outlined in Section 4.5.3.

Contact a Biological Resources SME through the EPC-ES group office at 505-665-8855 and [epc\\_biologists@lanl.gov](mailto:epc_biologists@lanl.gov) as parallel contact information for Biological Resources.

Contact a Cultural Resources SME through the EPC-ES group office at 505-665-8855 or use [cultural@lanl.gov](mailto:cultural@lanl.gov).

#### **4.5.6 Reporting a Release or Event**

If a release or event is reportable (as determined by one or more of the previous sections), the Laboratory is required to meet certain reporting requirements. The emergency notification requirements must be followed upon determination that a release or event is reportable.

For informational purposes, a Summary of Emergency Release or Event Reporting Requirements is provided in Attachment 2. This document summarizes the primary statutes and the associated reporting requirements.

Maintain a notebook to record pertinent information about the release and to document the actions taken (see Section 6.0 *Records*).

Any release to the environment that has been determined to be reportable by the EPC on-call representative or SME shall be reported through the LANL management chain in accordance with [PD1200, Emergency Management Program](#), and [P322-4, Performance Improvement from Abnormal Events](#).

Triad management and DOE shall be notified if a release notification to state or federal regulatory agencies is required. Management approval is not required prior to completing environmental notifications to the regulatory agencies in order to assure that the deadline for reporting is not exceeded.

Perform the following steps immediately after establishing that reporting is required:

- 1) Compile release information including:
  - a) The source, cause, type and quantity of the release;
  - b) Time and duration of the release;
  - c) Extent of any protective and corrective actions taken;
  - d) Name, address, and telephone number of the person to contact for further information
  - e) Whether the substance is an HS or EHS
  - f) Associated health risks and medical attention necessary for exposed individuals;
  - g) If available, information concerning the release of any contaminants, hazardous and/or mixed waste that may endanger public or private drinking water supplies;



<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 17 of 27
	Revision: 0	Effective Date: 08/10/2021

- h) Assessment health risks and medical attention necessary for exposed individuals;
  - i) If available, estimated quantity and disposition of recovered material that resulted from the incident;
  - j) Precautions to take due to the release/event, including, in the case of fire, those associated with special hazards due to the release of contaminants, hazardous and/or mixed waste;
  - k) Any other information that may help emergency personnel responding to the incident; and
  - l) Environmental media impacted from the release,
- 2) Notify LANL management, the Laboratory Tribal Liaison, and the respective FOD.
- NOTE:** Management approval is not required prior to completing environmental notifications to the regulatory agencies in order to assure that the deadline for reporting is not exceeded.
- 3) Provide notification to the regulatory agency as required by the applicable regulation(s) detailed in Sections 4.5.1 – 4.5.4. Reference Attachment 2 for a summary of the applicable reporting requirements.
- 4) Notify programmatic SMEs that may be impacted or required to complete follow-up reporting.

#### ***4.5.7 Steps to Notify LANL Management, the Laboratory Tribal Liaison, and Department of Energy Los Alamos Field Office (NA-LA)***

The EPC on-call representative will complete the following steps to provide notification to LANL Management and the Laboratory Tribal Liaison.

- 1) Determine that a release to the environment is reportable to state or federal entities as required under applicable regulations.
- NOTE:** Occurrence Reporting and Procession System (ORPS) reporting is a FOD and Responsible Associate Director (RAD) responsibility and commonly they will seek advisement from EPC SMEs.
- 2) Provide notification to the EPC-CP Water Quality Team Leader, the EPC-CP Group Leader, and the EPC-DO Division Leader of the release and the required external notifications.
  - 3) Provide notification to the Laboratory Tribal Liaison (if release/event impacts or may potentially impact Pueblo lands) of the release and the required external notifications. Notification to the impacted Pueblo Environment Department will be coordinated through the Laboratory's Tribal Liaison (505-629-2198) who will contact and notify the Department of Energy (DOE) Los Alamos Field Office (NA-LA) Intergovernmental Specialist to notify the Pueblos pursuant to protocols.

<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 18 of 27
	Revision: 0	Effective Date: 08/10/2021

- 4) Complete environmental reporting to state and federal agencies in accordance with all applicable regulations.
- 5) Notify the appropriate program SME that may be impacted or be required to complete follow-up release reporting.

After all the above notifications have been made, or when requested, the EPC on-call representative or SME will hand off responsibility for additional actions and follow-up to the affected environmental group. (The group that will be responsible will depend on the type and location of the release and the governing regulations or statutes.)

In order to communicate events at LANL that may impact the public and or the environment, EPC staff may provide a courtesy notification to NMED of events that may not require formal regulatory notification. Examples of such events in the past have been small wildland fires.

## 5.0 TRAINING

The training method for this procedure will be “self-study” (reading) and is documented in accordance with [PD781](#), *Training Program Management*.

The following personnel require training before implementing this procedure:

- EPC managers, designated on-call representatives, and SMEs who may be asked to fulfill immediate reporting requirements during release-related exercises or during actual releases.

Annual retraining to this procedure is required.

## 6.0 RECORDS

EPC-CP is the Office of Record for this document and must be maintained in accordance with [P1020-1](#), *Laboratory Records Management*. Records generated by this document will be submitted to the records management designated point-of-contact or document manager for document management.

- Field documentation of the release, include:
  - 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

<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 19 of 27
	Revision: 0	Effective Date: 08/10/2021

- Documentation of any verbal notifications
- Samples taken
- Copies of any written notifications generated
- Documentation of any analytical results and quality assurance of results
- Contingency and/or emergency plan documentation
- Documentation of any RCRA permit non-compliance that threatens human health and environment
- Documentation of treatment of any RCRA unstable chemicals, leaking, or compromised gas cylinders

As a result of implementing this procedure, below are the records generated that are identified by title and type.

<b>Record Title</b>	<b>QA Record</b>	<b>Non-QA Record</b>
Copies of any written notifications generated	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Documentation of any analytical results, and quality assurance of results	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Contingency and / or emergency plan documentation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Documentation of any RCRA permit non-compliance that threatens human health and environment	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Documentation of treatment of any RCRA unstable chemicals, leaking or compromised gas cylinders	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## 7.0 DEFINITIONS AND ACRONYMS

### 7.1 Definitions

**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.

**Environment** – Includes "water, air, land, and the interrelationship that exists among and between water, air, land, and all living things." ([40 CFR 355.20](#)).

**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.

<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 20 of 27
	Revision: 0	Effective Date: 08/10/2021

**Hazardous Substance (HS)** – These substances are summarized in [40 CFR Part 302](#). As used in this context, this 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).

**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.

## 7.2 Acronyms

AOC	Area of Concern
AST	Aboveground Storage Tank
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CMR	Chemistry and Metallurgy Research
CFR	Code of Federal Regulations
CWA	Clean Water Act
DDOPS	Deputy Directorate for Operations
DOE	Depart of Energy
DOE-LAFO	Department of Energy – Los Alamos Field Office
EHS	Extremely Hazardous Substance
EM	Office of Environmental Management
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
EPC-CP	Environmental Protection and Compliance – Compliance Programs Group
EPC-DO	Environmental Protection and Compliance Division
EPC-ES	Environmental Protection and Compliance – Environmental Stewardship Group

<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 21 of 27
	Revision: 0	Effective Date: 08/10/2021

EPCRA	Emergency Planning and Community Right-to-Know-Act
EPC-WMP	Environmental Protection and Compliance – Waste Management Programs Group
ESHQSS	Environment, Safety, Health, Quality, Safeguards and Security
FOD	Facility Operations Director
GWDP	Ground Water Discharge Permit
HEWTF	High Explosives Waste Treatment Facility
HS	Hazardous Substance
IWD	Integrated Work Document
IWD	Integrated Work Document
LANS	Los Alamos National Security
LANL or Laboratory	Los Alamos National Laboratory
LEPC	Local Emergency Planning Committee
MOA	Memorandum of Agreement
NA-LA	Los Alamos Field Office
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMWQA	New Mexico Water Quality Act
NMWQCC	New Mexico Water Quality Control Commission
NNSA	National Nuclear Security Administration
NPDES	National Pollutant Discharge Elimination System
NRC	National Response Center
ORPS	Occurrence Reporting and Processing System
OSC	On-Scene Commander
PADOPS	Principal Associate Directorate Operations
PCBs	Polychlorinated Biphenyls
PGP	Pesticide General Permit
PST	Petroleum Storage Tank
PSTB	Petroleum Storage Tank Bureau
QP	Quality Procedure
RAD	Responsible Associate Director
RAEM	Radioactive Air Emissions Management team within EPC-CP
RCRA	Resource Conservation and Recovery Act
RLM	Responsible Line Manager
RQ	Reportable Quantity
SARA	Superfund Amendments and Reauthorization Act
SDS	Safety Data Sheet
SERC	State Emergency Response Commission
SERF	Sanitary Effluent Reclamation Facility

<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 22 of 27
	Revision: 0	Effective Date: 08/10/2021

SEO-DO	Security and Emergency Operations Division
SME	Subject Matter Expert
SWMU	Solid Waste Management Unit
SWWS	Sanitary Waste Water System
TSCA	Toxic Substances Control Act
UIC	Underground Injection Control

## 8.0 REFERENCES

[40 CFR 261](#), Protection of Environmental, Identification and Listing of Hazardous Waste  
[40 CFR 302](#), Protection of Environment, EPA, Designation, Reportable Quantities, and Notification  
[40 CFR 302.4](#), Designation of Hazardous Substances  
[40.CFR.302.6](#), Notification of Requirements  
[40 CFR 355](#), Emergency Planning & Notification  
[40 CFR 761.125\(a\)\(1\)](#), Requirements for PCB spill cleanup  
[40 CFR 110.6](#), Discharge of Oil  
[20.5.7 NMAC](#), Environmental Protection, Petroleum Storage Tanks - Reporting Investigations of Suspected and Confirmed Releases  
 DOE – Office of Environmental Guidance, CERCLA Information Brief, EH-231-001-0490 (April 1990)  
 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 Program*  
[P1020-1](#), Laboratory Records Management  
[P300](#), Integrated Work Management  
[PD781](#), Training Program Management  
[P322-3](#), *Performance Improvement from Abnormal Events*  
 LANL RCRA Permit No. NM0890010515-1  
 LANL NPDES Permit No. NM0028355  
 National Response Center (NRC) Web Site: <http://www.nrc.uscg.mil/>  
 NMWQCC Regulations, 20.6.2 NMAC, dated December 1, 2001  
 New Mexico Environment Department Groundwater Discharge Permit DP-857  
 New Mexico Environment Department Groundwater Discharge Permit DP-1132

<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 23 of 27
	Revision: 0	Effective Date: 08/10/2021

New Mexico Environment Department Groundwater Discharge Permit DP-1589

New Mexico Administrative Code (NMAC) 20.5.7

## **9.0 APPENDICES**

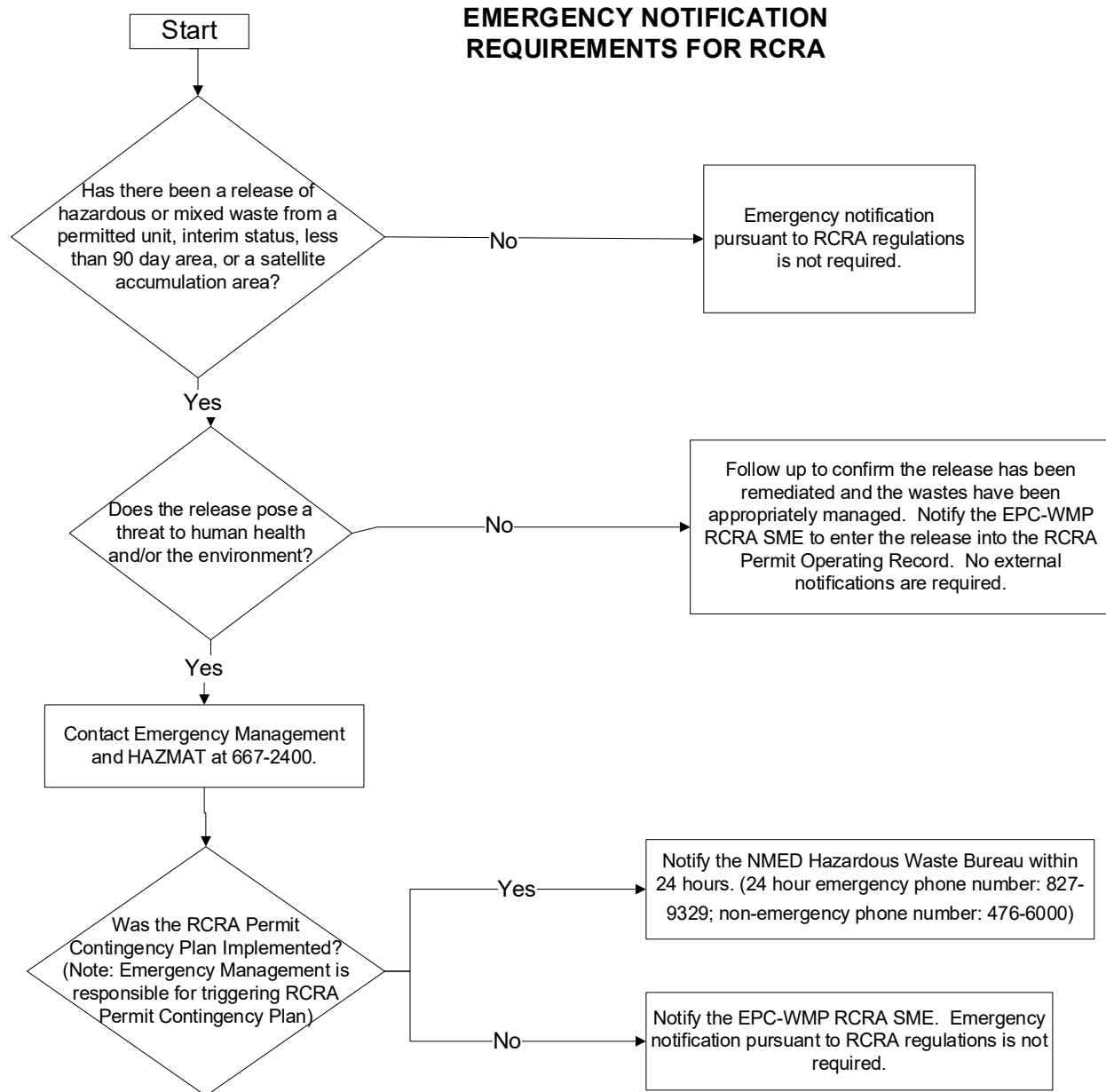
## **10.0 ATTACHMENTS**

**Attachment 1:** *Emergency Notification Requirements for RCRA*

**Attachment 2:** *Summary of Emergency Release or Event Reporting Requirements*



### Attachment 1: Emergency Notification Requirements for RCRA



<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 25 of 27
	Revision: 0	Effective Date: 08/10/2021

## Attachment 2: Summary of Emergency Release or Event Reporting Requirements

**NOTE:** This is only a guide and does not cover all federal, state, or permit reporting requirements. Refer to the Code of Federal Regulations and the RCRA Permit for more details regarding these regulations.

STATUTE	REGULATIONS	INCIDENT	Immediate Reporting Requirements	Follow Up Reporting Requirements
Clean Water Act	40 CFR §110.6	Oil discharge (film/sheen/discoloration) to water surface or shoreline, or violation of water quality standards.	Immediately (within 15 minutes of discovery) notify the National Response Center.	Follow-up not required.
Clean Water Act	Part III of NPDES Permit No. NM0028355	Leak or unplanned release from an NPDES permitted outfall.	Notify the NPDES Outfall Permit Program Lead and EPC-CP Water Quality Team Leader upon discovery. The program lead or the EPC-CP Water Quality Team Leader will complete initial reporting requirements as required.	Required follow-up reporting will be completed by the NPDES Outfall Permit Program Lead and EPC-CP Water Quality Team Leader.
Clean Water Act (CWA)-NPDES Pesticide General Permit	40 CFR §122.28	Adverse incident that includes evidence that a person or non-target organism has been exposed to a pesticide residue or the person or non-target organism suffered a toxic or adverse effect.	Notify the EPA Region 6 Pesticide Permitting contact (214) 665-7500 within 24 hours.	Submit a 30 Day Adverse Incident Written Report to the EPA Regional Office.
New Mexico Water Quality Control Commission Regulations (NMWQCC Regulations)	20.6.2.1203 NMAC	Discharge from any facility of oil or other water contaminant, in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or use of the property.	Notify the New Mexico Environment Department 505-827-9329 within 24 hours.	Submit 7 and 15 Day written follow up Corrective Action Reports (Copy EPA Region 6 on the 7 and 15 Day Reports).
New Mexico Water Quality Control Commission Regulations (NMWQCC Regulations)	20.6.2.3104 NMAC	Unplanned release of any volume from an activity or facility covered under an active Groundwater DP: DP-857: SWWS Plant, SERF, and Sigma Mesa Evaporation Basins DP-1589: Septic Tank/Disposal Systems DP-1132 Radioactive Liquid Waste Treatment Facility	Notify the New Mexico Environment Department 505-827-9329 within 24 hours.	Submit 7 and 15 Day written follow up Corrective Action Reports (Copy EPA Region 6 on the 7 and 15 Day Reports)


<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 26 of 27
	Revision: 0	Effective Date: 08/10/2021

<b>STATUTE</b>	<b>REGULATIONS</b>	<b>INCIDENT</b>	<b>Immediate Reporting Requirements</b>	<b>Follow Up Reporting Requirements</b>
New Mexico Petroleum Storage Tank Bureau Regulations	20.5.118 NMAC	A release of a petroleum product from regulated aboveground storage tank that exceeds 25 gallons, that causes a sheen on nearby surface water, or that creates a vapor hazard pursuant to 20.5.119.1902 NMAC	Contact the EPC-CP AST Program Lead and/or the EPC-CP Water Quality Team Leader prior to completing any external notifications. If required, the Petroleum Storage Tank Bureau (476-4397) or NMED Emergency Spill Hotline (505-827-9329) must be contacted within 24 hours.	A written report describing the spill, release or suspected release and any investigation or follow-up action needs to be submitted to the PSTB within 7 days of the incident.
Federal Spill Prevention, Control and Countermeasure Requirements	40 CFR 112.4	A discharge of more than 1000 gallons of oil or more than 42 gallons of oil in a 12-month period.	Contact the EPC-CP AST Program Lead and/or the EPC-CP Water Quality Team Leader prior to completing any external notifications.	A written report describing the cause of the release / discharge of oil, corrective actions, measure's to prevent recurrence shall be submitted to the EPA Regional Administrator within 60 days.
Comprehensive Environmental, Response, Compensation, and Liability Act (CERCLA)	40 CFR §302.6(a)	Hazardous substance (listed in 40 CFR Table 302.4) release (Equal to or greater than an RQ).	Immediately (within 15 minutes of discovery) notify the National Response Center 1-800-424-8802.	Follow-up not required.
Emergency Planning and Community Right- to-Know Act (EPCRA)	40 CFR§ 355.40	Release of an extremely hazardous substance (listed in 40 CFR Part 355 Appendices A and B) or CERCLA hazardous substance (listed in 40 CFR Table 302.4) equal to or greater than RQ.	Immediately (within 15 minutes of discovery) notify the LEPC (505-662-8283) the SERC (505-476-9635). Immediately notify the 911 operator for a release that occurs during transportation or from storage incident to transportation.  Notifying the LEPC/SERC is only required for a release of an Extremely Hazardous Substance.	A written follow-up emergency notice must be submitted to the LEPC and SERC as soon as practicable after the release.

<b>Environmental Reporting Requirements for Releases or Events</b>	EPC-CP-QP-0903	Page 27 of 27
	Revision: 0	Effective Date: 08/10/2021

STATUTE	REGULATIONS	INCIDENT	Immediate Reporting Requirements	Follow Up Reporting Requirements
Resource Conservation and Recovery Act (RCRA)	40 CFR 262.34, 263.30, 264.51, 264.56 & .196, 265.51, .56 & .196, 270.14, & .30, 273.17, .37 & .54, 279.43 & .53, 280.50, .52, .53, .60, & .61	Release of hazardous or mixed waste from a permitted unit, interim status, less than 90 day area or a satellite accumulation area which the RCRA Permit Contingency Plan was triggered.	Notify NMED Hazardous Waste Bureau within 24 hours (24 hour emergency phone number: 827-9329; Non-emergency phone number: 476-6000) See Attachment 1 for additional details.	Submit written report to NMED HWB within 5 days.
Clean Air Act/ Radionuclide NESHAP	40 CFR 61, Subpart H	Airborne release of radioactive material in excess of an RQ.	Notify the EPA Region 6 Health Physicist (Office- (214) 665-8541; Mobile- (214) 755-1530; Home – (972) 937-1900) immediately after providing notification to the NRC.	Follow-up will be coordinated by the EPC-CP RAEM team.
New Mexico Air Quality Regulation	20 NMAC 2.7	Incidents in which excess emissions exceed an air quality regulatory limit or air permit emission limit.	File initial report to NMED AQB no later than the end of the next business day after the exceedance was discovered. (Submitted on-line via NMED AQB Secure Extranet Portal (SEP)).	Submit final written report to NMED AQB within 10 business days.
Toxic Substance Control Act (TSCA)	40 CFR 761.120, 761.125	Over 1 pound by weight of PCBs (TSCA) or greater than 270 gallons of untested mineral oil suspected of containing PCBs.	Contact the National Response Center (1-800-242-8802) and the EPA Region 6 Office of Prevention, Pesticides, and Toxic Substances Branch (1-866-372-7745) as soon as	Within 24 hours. Follow-up: as required by agency.

Attachment 22: **EPC-CP-QP-1007, *SPILL INVESTIGATIONS***

<b>EPC-CP-QP-1007</b>	Revision: <b>0</b>	
Effective Date: 06/03/2020	Next Review Date: 06/03/2023	

**Environment, Safety, Health, Quality, Safeguards, and Security Directorate**

**Environment Protection and Compliance – Compliance Programs Group**

**Quality Procedure**

## Spill Investigations

**Hazard Grading:**    ☒ Low            ☐ Moderate            ☐ High/Complex

**Usage Level:**    ☒ Reference    ☐ UET            ☐ Mixed: UET Sections: \_\_\_\_\_

**Status:**            ☐ New            ☒ Major Revision    ☐ Minor Revision

☐ Review w/No Changes            ☐ Other: \_\_\_\_\_

**Safety Basis:**    ☒ N/A            ☐ USQ            ☐ USI    Number: \_\_\_\_\_

**Document Author/Subject Matter Expert:**

Name:	Organization:	Signature:	Date:
Steve Pearson	EPC-CP	Signature on File	05-21-20

**Derivative Classifier:**    ☒ **Unclassified** or ☐ \_\_\_\_\_

Name:	Organization:	Signature:	Date:
Steve Wolfel	EPC-CP	Signature on File	05-27-20

**Approval Signatures:**

EPC-CP Reviewer:	Organization:	Signature:	Date:
Michael Saladen	EPC-CP	Signature on File	05-27-20
EPC-CP RLM:	Organization:	Signature:	Date:
Taunia Van Valkenburg	EPC-CP	Signature on File	06-03-20

*This copy is uncontrolled.*

*Users are responsible for ensuring they work to the latest approved version.*

*To document a required read, Login to [UTrain](#), and go to the Advanced Search.*

<b>Spill Investigations</b>	No: EPC-CP-QP-1007	Page 2 of 20
	Revision: 0	Effective Date: 06/03/2020

### REVISION HISTORY

<b>Document Number and Revision</b> <i>[Include revision number, beginning with Revision 0]</i>	<b>Effective Date</b> <i>[Document Control Coordinator inserts effective date]</i>	<b>Description of Changes</b> <i>[List specific changes made since the previous revision]</i>
0	12/98	New Document.
1	06/00	Annual review, added Cerro Grande fire hazards
2	07/01	Annual review.
3	06/03	Annual review.
4	04/04	Annual review, changes to HCPs.
5	02/07	Annual review, changes to reflect organizational restructure.
6	07/08	Annual review.
7	09/10	Biennial Review and revision.
8	04/11	Removed prerequisites, added note re: on-call spill reporting.
9	07/13	Biennial review and revision, implemented new procedure format.
10	09/30/15	Biennial review and revision, implemented new procedure format. Controlled the updated LANL ENV-CP Unplanned Release Report.
EPC-CP-QP-1007, Rev. 0	06/03/2020	Format document into new template and update content. This document was formerly ENV-CP-QP-007 R10.



<b>Spill Investigations</b>	No: EPC-CP-QP-1007	Page 3 of 20
	Revision: 0	Effective Date: 06/03/2020

## Table of Contents

Revision History .....	2
1.0 Introduction .....	4
1.1 Purpose .....	4
1.2 Scope .....	4
1.3 Applicability .....	4
1.4 Authority .....	4
2.0 Precautions and Limitations .....	4
2.1 Precautions.....	4
2.2 Limitations .....	5
3.0 Prerequisite Actions.....	5
3.1 Planning and Coordination.....	5
3.2 Performance Documents .....	6
3.3 Special Tools, Equipment, Parts, and Supplies.....	6
4.0 Performing Spill Investigations .....	6
4.1 Notification of a Spill or Unplanned Release.....	6
4.2 Emergency Spill/Unplanned Release - Responding with EMD-EO .....	8
4.2 Non-Emergency Spill or Unplanned Release.....	9
4.3 Reporting Spills and/or Unplanned Releases .....	11
4.3.1 Immediate Notification .....	11
4.3.2 Non-Reportable Spills/Unplanned Releases .....	12
4.3.3 Reportable Spills/Unplanned Releases .....	12
5.0 Training .....	13
6.0 Records .....	13
7.0 Definitions and Acronyms.....	14
7.1 Definitions .....	14
7.2 Acronyms.....	14
8.0 References .....	15
9.0 Attachments .....	15
Attachment 1: Release Notification Phone List .....	16
Attachment 2: Unplanned Release Report, EPC-CP-QP-1007-Form 1.....	17
Attachment 3: 7/15 Day Release Report, EPC-CP-QP-1007-Form 2.....	18

<b>Spill Investigations</b>	No: EPC-CP-QP-1007	Page 4 of 20
	Revision: 0	Effective Date: 06/03/2020

## **1.0 INTRODUCTION**

All spills and unplanned releases that occur at Los Alamos National Laboratory (LANL) must be evaluated, remediated, and documented to ensure corrective actions are completed and reporting requirements are fulfilled. The investigation of spills and coordination of corrective actions are delegated to the Environmental Protection and Compliance Division's Compliance Programs Group (EPC-CP).

### **1.1 Purpose**

This EPC-CP procedure describes the steps for performing spill investigations throughout LANL.

### **1.2 Scope**

The scope of this procedure is limited to the performance of spill and unplanned release response by EPC-CP personnel and/or authorized subcontractors. Activities include frequent and unscheduled site visits to any area of the Laboratory upon discovery of a spill or unplanned release as support staff for the on-scene Incident Response Commander, deployed environmental staff, or Facility Operations Directorate (FOD) designated facility representative. Support activities include evaluation and documentation of the spill/unplanned release; guidance regarding remediation; and reporting to regulatory agencies.

### **1.3 Applicability**

This procedure applies to all EPC-CP personnel and after hours on-call personnel responsible for conducting spill investigations.

### **1.4 Authority**

The EPC-CP Group Leader is the issuing authority for this document.

## **2.0 PRECAUTIONS AND LIMITATIONS**

A Hazard Analysis was performed for the tasks associated with this procedure. The hazard rating for the activities described in this procedure is **LOW** and does not require an Integrated Work Document.

### **2.1 Precautions**

Precautions apply to abnormal conditions or hazards to personnel or equipment that can be encountered while performing this procedure. The following precautions shall be taken when performing work using this quality technical procedure:

- Personnel shall wear appropriate clothing (e.g., boots, long pants, gloves, etc.) to perform spill investigations in the field. This may also include safety glasses, a hardhat, a safety vest, and/or safety shoes/boots as required by the location of the tank, equipment, and area to be inspected.

<b>Spill Investigations</b>	No: EPC-CP-QP-1007	Page 5 of 20
	Revision: 0	Effective Date: 06/03/2020

- Work may be paused or discontinued due to conditions that make a location dangerous for worker safety or prevent personnel from safely accessing a site (i.e., flash floods, lightning, wildfires, hail, icy roads, deep snow, extreme temperatures, or hazardous LANL Operations such as firing shots, burns, or security).

## 2.2 Limitations

Limitations are defined boundaries (i.e., training, hold points) that are NOT to be exceeded while performing the activities defined in this procedure. The following limitations are applicable to performing work using this technical procedure:

- Perform field activities in accordance with EPC-DO-QP-100, General Field Safety, and/or be escorted by Emergency Management Division – Emergency Operations Group (EMD-EO) or site personnel at all times.
- Spills or unplanned releases that occur on Department of Energy property due to activities performed by an organization not associated with Triad National Security, LLC (e.g., Los Alamos County, Newport News Nuclear BWXT Los Alamos (N3B), etc.) are the responsibility of that organization. The respective organization is responsible for site remediation, completion of corrective actions, and fulfillment any external reporting requirements.
- Some spills or unplanned releases have 15-minute and 24-hour notification requirements. Personnel using this procedure must be familiar with the reporting requirements of [EPC-CP-QP-0903, Environmental Reporting Requirements for Releases](#).

## 3.0 PREREQUISITE ACTIONS

### 3.1 Planning and Coordination

The response to spills and/or unplanned releases requires frequent and unscheduled site visits to any area of the Laboratory. Certain facilities and Laboratory locations require additional training and have specific access requirements that must be followed. Specific activities may include one or more of the following:

- Site-Specific Training (e.g., burn grounds).
- Coordination with Access Control and/or Security for escort, keys, safety (e.g., explosives areas, burn grounds, between security fences).
- Security Clearance (i.e., TA-3-66, TA-55, TA-16).

Site access for spill/unplanned release response will require that the Spill Investigator maintain multiple site-specific training requirements. It will also require that the Spill Investigator coordinate with the Emergency Operations Center (EOC), designated FOD representative, and/or Deployed Environmental Professional (DEP).

<b>Spill Investigations</b>	No: EPC-CP-QP-1007	Page 6 of 20
	Revision: 0	Effective Date: 06/03/2020

### 3.2 Performance Documents

The following documents are required to perform this procedure:

- EPC-CP-QP-1007 Form 1, Unplanned Release Report.
- EPC-CP-QP-1007 Form 2, 7/15 Day Release Report.
- [EPC-CP-QP-0903, Environmental Reporting Requirements for Releases.](#)

### 3.3 Special Tools, Equipment, Parts, and Supplies

Ensure the following are available for spill investigations and field visits:

- Personal protective equipment (PPE) as required by each specific site location (e.g., hardhat, safety vest, safety glasses, safety shoes, etc.)
- Cell phone (only government cell phones are allowed in secure areas.) See <https://int.lanl.gov/policy/documents/P217.pdf> for requirements for using portable electronic devices on Laboratory property.
- EPC-CP Spills Pager – **\*Note:** Spills Pager can be configured to forward notifications to a government cell phone and email address.
- External dosimeter (as required by site or facility).
- Field Logbook (maintained to record pertinent information about the spill, i.e., time and date of release, location and source of 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, time, date and description of notifications, etc.).
- Physical or electronic maps (e.g., utility line locations, Solid Waste Management Unit (SWMU) / Area of Concern (AOC) boundaries, land ownership boundaries).

## 4.0 PERFORMING SPILL INVESTIGATIONS

### 4.1 Notification of a Spill or Unplanned Release

The EPC-CP personnel that conduct spill investigations ensure the immediate mitigation of spills and timely notification to appropriate regulatory organizations in the event of a spill or unplanned discharge that has or may adversely affect the environment. Spills/unplanned releases are typically reported by a designated FOD representative (i.e., operations, maintenance) or DEP. If the spill/unplanned release is an emergency (i.e., unknown chemical, toxic chemical, flammable chemical, large volume), it will be reported to the EOC at 667-2400 and the EOC will contact the spill investigator using the EPC Spill pager. If the spill/unplanned release is not an emergency, (potable water, small volume, non-toxic), it will be reported via the EPC Spill pager (664-7722) or by phone call from the DEP or other designated FOD representative (i.e., operations, maintenance, security, health and safety). The EPC-CP Spill Program maintains an on-call schedule for after-hours support

<b>Spill Investigations</b>	No: EPC-CP-QP-1007	Page 7 of 20
	Revision: 0	Effective Date: 06/03/2020

for incidents and unplanned releases. This listing is updated every three months with contact information for trained EPC-CP personnel (see Attachment 1). This schedule is submitted electronically to update the Primary On-Call List available through the Laboratory's EMD-EO Organizations.

### **Spill Investigator/On Call**

- [1] Receive notification of a spill or unplanned release from one of the following:
  - Spill Pager (664-7722) or forwarded cell phone.
  - Emergency Operations Center (667-2400).
  - Phone call from the DEP or other designated FOD representative (i.e., operations, maintenance, security, health and safety).
- [2] Document the following information, at a minimum, in the Spill Logbook:
  - Time, Date, and Location of the spill/unplanned release
  - Owner of Spill and Site Contact
  - Material Spilled
  - Approximate Volume of the Spill/Unplanned Release
  - Source of the Spill
- [3] Request that the EOC identify a safe route to the site/location of the spill or unplanned release.

#### **CAUTION**

Spills or unplanned releases that occur on Department of Energy property from an organization not associated with Triad National Security, LLC (e.g., Los Alamos County, N3B etc.) are the responsibility of that organization. The respective organization is responsible for site remediation, corrective actions, and external reporting requirements.

- [4] If the owner of the spill is not associated with Triad National Security, LLC, refer the caller to one of the following, as appropriate:
  - Los Alamos County (LAC) Department of Public Utilities at 662-8333 for releases discovered during normal work hours from LAC owned equipment or infrastructure.
  - After Hours LAC – Call Police Dispatch at 662-8222 for releases outside of normal work hours from LAC owned equipment or infrastructure.
  - N3B Operations Center at 551-2954 for releases from N3B owned equipment or infrastructure.
- [5] If the owner of the spill is associated with Triad National Security, LLC, prepare for a site visit as follows:

<b>Spill Investigations</b>	No: EPC-CP-QP-1007	Page 8 of 20
	Revision: 0	Effective Date: 06/03/2020

- [a] Based upon location of the spill/unplanned release, determine what access requirements are applicable (i.e., Q/L Clearance, Site Specific Training) (see Section 3.1).
- [b] Based upon the location and material spilled, determine the appropriate PPE for the site visit (e.g., boots, safety glasses, long pants/shirt, hardhat, safety vest).
- [6] If the spill is de Minimis (low volume); of a known material (potable water, sanitary waste; and personnel have the appropriate knowledge/training, instruct the following:
  - [a] The delegated FOD representative, DEP and/or Waste Management Coordinator (WMC) may remediate the spill without the Spill Investigator being present.
  - [b] The designated FOD representative, DEP, and/or WMC must complete an Unplanned Release Report (Attachment 2) and submit a copy of the report to the Spill Investigator for recordkeeping.

#### **4.2 Emergency Spill/Unplanned Release - Responding with EMD-EO**

The Spill Investigator will respond to emergency spills/unplanned releases when notified. Emergency spills/unplanned releases typically include unknown materials leaking from bins, drums, and containers, hazardous materials (i.e., acid, caustic, fuel), or large volumes of petroleum products (i.e., leaking tanks, tanker truck accidents). Emergency spills/unplanned releases are managed by the EOC. The following provides the steps a Spill Investigator will follow when responding to support the EOC for an emergency spill/unplanned release.

##### **Spill Investigator/On Call Spill Responder**

- [1] Travel to the location of the spill or unplanned release.
- [2] Report to designated Incident Response Coordinator and receive site-specific safety and security briefing.
- [3] Assess and evaluate nature and extent of the release.
- [4] Provide support and guidance to EMD-DO, Hazmat, and Facility personnel on release mitigation measures and requirements. Examples of the types of support and guidance are:
  - [a] Provide the final inspection of the site to ensure that corrective actions were adequate and are complete.
  - [b] Recommend corrective actions.
  - [c] Inspect the site to ensure that the extent of the spill/unplanned release is adequately defined.

<b>Spill Investigations</b>	No: EPC-CP-QP-1007	Page 9 of 20
	Revision: 0	Effective Date: 06/03/2020

- [d] Recommend how to stabilize the site for further remediation (i.e., secure the site from storm water).
  - [e] Identify watercourse boundaries near the spill/unplanned release.
  - [f] Determine if samples need to be collected.
  - [g] Recommend sample types and analysis.
  - [h] Recommend sample locations and the number of samples to determine extent of condition.
- [5] If sample collection is required, have the DEP/WMC contact the waste management organization and 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.
- [6] Document the following information regarding the spill or unplanned release in the Logbook:
- Timeline of spill/unplanned release response as it occurs.
  - Nature and extent of the spill/unplanned release (i.e., inside a building, on asphalt, nearest watercourse/drainage area, proximity to SWMU/AOC and/or outfalls).
  - Steps taken to contain the spill.
  - Samples collected, if any. Include number, type, location, and analysis.
  - Spill and control equipment used to remediate the spill.
  - Corrective actions completed and the amount of waste material.

#### **4.2 Non-Emergency Spill or Unplanned Release**

The Spill Investigator will respond to non-emergency spills/unplanned releases when notified. Non-emergency spills/unplanned releases typically include potable water leaks; sanitary wastewater leaks, spills, overflows; and small volumes of known chemicals (e.g., hydraulic fluid leaks, vehicle oil leaks). Non-Emergency Spills/Unplanned Releases are typically handled by a designated FOD representative (i.e., operations, maintenance), DEP, or WMC assigned to the area. The following provides the steps a Spill Investigator will follow when responding a non-emergency spill/unplanned release.

##### **Spill Investigator/On Call**

- [1] Coordinate with the FOD designee and/or waste management coordinator to visit the location of the spill/unplanned release.
- [2] Travel to the location of the spill/unplanned release.



<b>Spill Investigations</b>	No: EPC-CP-QP-1007	Page 10 of 20
	Revision: 0	Effective Date: 06/03/2020

### **CAUTION**

The Spill Investigator may respond to the spill or unplanned release and determine whether the containment and remediation is beyond the capability of the designated FOD representative, DEP, and/or WMC to respond. The EOC should be contacted if additional technical expertise or materials are needed to remediate the release.

- [3] Assess and evaluate the nature and extent of the release as follows:
  - [a] If the spill/release is a small volume or known material (e.g., sanitary waste, potable water, small hydraulic leak), proceed to step 4.
  - [b] If the spill/release is an unknown (e.g., leaking fluid from a metal recycling bin, drum, battery, or other container), stop work and notify the EOC at 667-2400.
  - [c] If the spill/release is a hazardous material or large volume of petroleum product (i.e., battery acid, chemical tank, fuel, hydraulic fluid, oil), stop work and notify the EOC at 667-2400.
  - [d] If the spill/release appears to be beyond the capability of the designated FOD representative, DEP, and/or WMC to contain and/or remediate, the Spill Investigator shall stop work and notify the EOC at 667-2400 to obtain the appropriate resources.
- [4] Provide guidance to the FOD designee and/or waste management coordinator regarding the containment and/or cleanup of the release. Examples of the types of guidance provided include the following:
  - [a] Provide the final inspection of the site to ensure that corrective actions were adequate and are complete.
  - [b] Recommend corrective actions.
  - [c] Inspect the site to ensure that the extent of the spill/unplanned release is adequately defined.
  - [d] Recommend how to stabilize the site for further remediation (i.e., secure the site from storm water).
  - [e] Identify watercourse boundaries near the spill/unplanned release.
  - [f] Determine if samples need to be collected.
  - [g] Recommend sample types and analysis.
  - [h] Recommend sample locations and the number of samples to determine extent of condition.
- [5] If sample collection is required, have the DEP/WMC contact WM-SVS and complete a 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.

<b>Spill Investigations</b>	No: EPC-CP-QP-1007	Page 11 of 20
	Revision: 0	Effective Date: 06/03/2020

- [6] Document the following information regarding the spill or unplanned release in the Logbook:
  - Timeline of spill/unplanned release response as it occurs.
  - Nature and extent of the spill/unplanned release (i.e., inside a building, on asphalt, nearest watercourse/drainage area, proximity to SWMU/AOC and/or outfalls).
  - Steps taken to contain the spill.
  - Samples collected, if any. Include number, type, location, and analysis.
  - Spill and control equipment used to remediate the spill.
  - Corrective actions completed and the amount of waste material.
- [7] Coordinate and document all required follow up corrective actions with the FOD designees, DEP, and/or WMC.
- [8] Determine the applicable internal and external reporting requirements as outlined in Section 4.3.

### 4.3 Reporting Spills and/or Unplanned Releases

This section describes how to determine whether an unplanned release, spill, or other event needs to be reported under environmental regulations and how to fulfill all immediate reporting requirements (within the first 24-hours).

#### 4.3.1 Immediate Notification

##### Spill Investigator/On Call Spill Responder

- [1] Identify which of the following internal stakeholders that should receive a report of the spill/unplanned release:
  - EPC-CP Group and Division Management
  - Compliance Subject Matter Experts (SME). This includes Resource Conservation and Recovery Act, National Pollution Discharge Elimination System, Storm water, Groundwater, and/or Waste Management compliance personnel that potentially have permit specific reporting requirements.
  - FOD where the spill/unplanned release occurred.
  - Designated FOD Representative (i.e., DEP, Operations, and Maintenance).

#### **CAUTION**

Spills/unplanned releases may have EXTERNAL reporting requirements that must be completed within 15 minutes or 24-hours of discovery based upon EPC-CP-QP-0903, Environmental Reporting Requirements for Releases.

<b>Spill Investigations</b>	No: EPC-CP-QP-1007	Page 12 of 20
	Revision: 0	Effective Date: 06/03/2020

- [2] Identify the verbal and written EXTERNAL reporting requirements in accordance with [EPC-CP-QP-0903, Environmental Reporting Requirements for Releases](#).

#### **4.3.2 Non-Reportable Spills/Unplanned Releases**

##### **Spill Investigator/On Call Spill Responder**

- [1] Notify the internal stakeholders (i.e., EPC-CP, SME, FOD, and designated FOD Representative) by phone and/or email (Attachment 1). Include the following pertinent facts as recorded in the logbook:
- Date, Time, Location of the release.
  - Quantity and type of material.
  - Status of corrective actions.
- [2] Document the spill/unplanned release in the spills database.
- [3] Document spills/unplanned releases that are NOT reportable to an external regulatory agency on EPC-CP-QP-1007-Form 1, Unplanned Release Report (Attachment 2).
- [a] If the Form 1 is completed by a DEP or other designated FOD representative, request a copy of the signed form.
- [b] Attach completed EPC-CP-QP-1007-Form 1 to the spill database record.
- [4] Submit copies of the accumulated EPC-CP-QP-1007-Form 1's, (annually), to records in accordance with [ADESH-AP-006, Records Management](#).

#### **4.3.3 Reportable Spills/Unplanned Releases**

##### **Spill Investigator/On Call Spill Responder**

- [1] Notify the internal stakeholders (i.e., EPC-CP, SME, FOD, and designated FOD Representative) by phone and/or email (Attachment 1). Include the following pertinent facts as recorded in the logbook:
- [a] Date, Time, Location of the release.
  - [b] Quantity and type of material.
  - [c] Status of corrective actions.
- [2] Notify National Nuclear Safety Administration (NNSA)/Los Alamos Site Office (LASO).
- [3] Perform the required EXTERNAL verbal notifications to the appropriate regulatory agencies (i.e., New Mexico Environment Department [NMED], Environmental Protection Agency [EPA]) in accordance with [EPC-CP-QP-0903, Environmental Reporting Requirements for Releases](#).

<b>Spill Investigations</b>	No: EPC-CP-QP-1007	Page 13 of 20
	Revision: 0	Effective Date: 06/03/2020

- [4] Document spills/unplanned release on EPC-CP-QP-1007-Form 2, *7/15 Day Release Report* (Attachment 3).
  - [a] Ensure that the EPC-CP-QP-1007-Form 2 is reviewed and assigned an LA-UR document release number.
  - [b] Attach the final EPC-CP-QP-1007-Form 2 to the spill database record.
  - [c] Submit the final EPC-CP-QP-1007-Form 2 as an e-mail attachment to the appropriate regulatory agency.
  - [d] Submit a copy of the EPC-CP-QP-1007-Form 2 to the internal stakeholders and NNSA/LASO.
- [5] Document the spill/unplanned release in the spills database.
- [6] Attach completed EPC-CP-QP-1007-Form 2 to the spill data base record.
- [7] Electronically file a copy of the EPC-CP-QP-1007-Form 2 in Spills folder located at ENV(\\dcstorage.lanl.gov):\\CP\\WQ\\WQCC COMP PROG.
- [8] Submit copies of the accumulated EPC-CP-QP-1007-Form 2's, (annually), to records in accordance with [ADESH-AP-006, Records Management](#).

## 5.0 TRAINING

All EPC-CP personnel that execute the activities specified in this procedure must meet the minimum qualification and training requirements for their position as identified in [EPC-CP-PIP-1001, New Mexico Water Quality Control Commission \(WQCC\) Program Implementation Plan \(PIP\)](#). This will include "self-study" (required reading) for this procedure as assigned and documented in accordance with [ADESH-TPP-301, ADESH Training Program Plan \(TPP\)](#).

## 6.0 RECORDS

EPC-CP is the Office of Record for this document and must be maintained in accordance with [PD1020, Document Control and Records Management](#) and [ADESH-AP-006, Records Management Plan](#). Records generated by this document will be submitted to the Records Management designated point of contact or document manager for document management. The following records are generated by this procedure.

Record Title	QA Record	Non-QA Record
EPC-CP-QP-1007 Form 1, <i>EPC-CP Unplanned Release Report</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EPC-CP-QP-1007 Form 2, <i>EPC-CP 7/15 Day Release Report</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Correspondence (i.e., E-mail Notifications to LANL Management, DOE, and other EPC-CP permit subject matter experts)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<b>Spill Investigations</b>	No: EPC-CP-QP-1007	Page 14 of 20
	Revision: 0	Effective Date: 06/03/2020

Correspondence - E-mail Submittals of 7/15 Day Release Reports to NMED	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Logbook	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## 7.0 DEFINITIONS AND ACRONYMS

### 7.1 Definitions

See LANL [Definition of Terms](#).

**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.

### 7.2 Acronyms

See LANL [Acronym Master List](#).

AOC	Area of Concern
DEP	Deployed Environmental Professional
EMD-EO	Emergency Management Division -Emergency Operations Group
EOC	Emergency Operations Center
EPC-CP	Environmental Protection and Compliance Group
FOD	Facility Operations Directorate
LAC	Los Alamos County
LANL or the Laboratory	Los Alamos National Laboratory
LASO	Los Alamos Site Office (LASO).
N3B	Newport News Nuclear BWXT Los Alamos
NMED	New Mexico Environment Department
NNSA	National Nuclear Safety Administration
PIP	Program Implementation Plan
PPE	Personal Protective Equipment
SWMU	Solid Waste Management Unit
TPP	Training Program Plan
WMC	Waste Management Coordinator
WQCC	Water Quality Control Commission
SME	Subject Matter Expert

<b>Spill Investigations</b>	No: EPC-CP-QP-1007	Page 15 of 20
	Revision: 0	Effective Date: 06/03/2020

## 8.0 REFERENCES

ADESH-AP-006, Records Management Plan

ADESH-TPP-301, ADESH Training Program Plan (TPP)

EPC-CP-PIP-1001, New Mexico Water Quality Control Commission (WQCC) Program Implementation Plan

EPC-CP-QP-0903, Environmental Reporting Requirements for Releases

EPC-DO-QP-100, General Field Safety

P217, Controlled Portable Electronic Devices

## 9.0 ATTACHMENTS

**Attachment 1:** Release Notification Phone List

**Attachment 2:** EPC-CP-QP-1007-Form 1, *Unplanned Release Report*

**Attachment 3:** EPC-CP-QP-1007-Form 2, *7/15 Day Release Report*

<b>Spill Investigations</b>	No: EPC-CP-QP-1007	Page 16 of 20
	Revision: 0	Effective Date: 06/03/2020

## **Attachment 1: Release Notification Phone List**

### **Los Alamos National Laboratory**

- |   |                |
|---|----------------|
| (1) Emergency Operations Support Center | (505) 667-2400 |
| (2) EPC-ES Group Office                 | (505) 665-8855 |
| (3) EPC-CP Group Office                 | (505) 667-0666 |
| (4) EPC-DO                              | (505) 667-2211 |
| (5) EPC-CP Spills Pager                 | (505) 664-7722 |

### **New Mexico Environment Department**

- |  |                  |
|--|------------------|
| (1) NMED Emergency Hotline (24 hours a day)                | (505) 827-9329   |
| (2) NMED Non-Emergency Hotline (Voicemail; 24 hours a day) | 1 (866) 428-6535 |
| (3) NMED Surface Water Quality Bureau                      | (505) 827-0187   |
| Jennifer Foote   | (505) 827-0596   |
| (4) NMED Ground Water Quality Bureau                       | (505) 827-2900   |
| Gerald (Jake) Knutson                                      | (505) 827-2996   |
| Steve Pullen   | (505) 827-2962   |
| (5) NMED Hazardous Waste Bureau                            | (505) 476-6000   |
| Stephen Connolly   | (505) 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) Nancy Williams  | 1 (214) 665-7179 |

### **Los Alamos Fire Department**

(505) 662-8301

### **U.S. Department of Energy**

- |                  |                |
|------------------|----------------|
| (1) Karen Armijo | (505) 665-7314 |
|------------------|----------------|

### **Newport News Nuclear BWXT Los Alamos (N3B)**

- |                           |                |
|---------------------------|----------------|
| (1) N3B Operations Center | (505) 551-2954 |
|---------------------------|----------------|

### **New Mexico State Police**

- |                         |                |
|-------------------------|----------------|
| New Mexico State Police | (505) 827-9604 |
|-------------------------|----------------|

### **EPC-CP On-Call Environmental Representative for Release Assessment and Notifications to External Agencies**

- |                   |                         |
|-------------------|-------------------------|
| (1) Terrill Lemke | (505) 665-2397 (Office) |
|                   | (505) 699-0725 (Cell)   |
| (2) Steve Pearson | (505) 667-3005 (Office) |
|                   | (505) 699-3684 (Cell)   |
| (3) Mike Saladen  | (505) 665-6085 (Office) |
|                   | (505) 699-1284 (Cell)   |
| (4) Tim Zimmerly  | (505) 664-0105 (Office) |
|                   | (505) 699-7621 (Cell)   |



<b>Spill Investigations</b>	No: EPC-CP-QP-1007	Page 17 of 20
	Revision: 0	Effective Date: 06/03/2020

## Attachment 2: Unplanned Release Report, EPC-CP-QP-1007-Form 1

<b>Los Alamos National Laboratory</b> <b>Environmental Compliance Program (EPC-CP)</b> <b>Unplanned Release Report</b>		
<b>Form Completed By:</b>		<b>Telephone:</b>
<b>Spill Owner Details (Specify):</b>		<b>Group:</b>
<input type="checkbox"/> TRIAD, LLC	<input type="checkbox"/> Subcontractor:	<input type="checkbox"/> Other:
<b>Date of Spill/Date Spill Discovered:</b>		
<b>Location:</b>		
<b>Material Spilled:</b>		
<input type="checkbox"/> Hydraulic Fluid	<input type="checkbox"/> Anti-freeze/coolant	<input type="checkbox"/> Refrigerant Oil
<input type="checkbox"/> Potable Water	<input type="checkbox"/> Steam Condensate	<input type="checkbox"/> Gasoline
<input type="checkbox"/> Diesel	<input type="checkbox"/> Lubricants/Oils	<input type="checkbox"/> Other:
<b>Volume Spilled:</b>	<b>Waste Volume Generated:</b>	
<b>Source of Spill:</b>	<input type="checkbox"/> Potable Water Line	<input type="checkbox"/> Radiator
Vehicle ID:	<input type="checkbox"/> Fire Suppression System	<input type="checkbox"/> Condensate Line
Equipment ID:	<input type="checkbox"/> Fuel Tank	<input type="checkbox"/> Other:
Describe the spill response in chronological order. Include response personnel, steps taken to contain the spill, and steps/spill control equipment used to clean it up. Please indicate if corrective actions have been completed and describe actions taken to prevent spill recurrence:		
<b>Date Corrective Actions Completed:</b>		
<b>Did the spill enter or impact any of the following?</b> (Check as many as apply)		<input type="checkbox"/> Floor Drain, if so please indicate affected facility <input type="checkbox"/> Watercourse/drainage area, if so please indicate <input type="checkbox"/> Solid Waste Management Unit/Area of Concern, if so please indicate <input type="checkbox"/> None
<input type="checkbox"/> RCRA Treatment Storage Disposal Facility <input type="checkbox"/> RCRA Satellite Accumulation Area <input type="checkbox"/> RCRA <90 Day Storage Area <input type="checkbox"/> NPDES MSGP Facility		
<b>Did the spill occur inside or outside a building?</b> <input type="checkbox"/> Inside <input type="checkbox"/> Outside		
<b>Did the spill occur on:</b> (Check as many as apply)		
<input type="checkbox"/> Concrete	<input type="checkbox"/> Asphalt	
<input type="checkbox"/> Carpeted Floor	<input type="checkbox"/> Graveled/Rocky Area	
<input type="checkbox"/> Tile	<input type="checkbox"/> Soil/Vegetated Area	
<input type="checkbox"/> Wooden Floor/Deck	<input type="checkbox"/> Other:	
<b>Samples Collected:</b>		
<input type="checkbox"/> None	<input type="checkbox"/> Soil	If samples were collected, indicate analytical suite:
<input type="checkbox"/> Water	<input type="checkbox"/> Air	
<input type="checkbox"/> Other:		
<b>Certification</b>		
I certify that I am knowledgeable about the information on this form. The information, to my knowledge, is true, accurate, and complete.		
<b>Name of Certifying Official:</b>	<b>Organization:</b>	<b>Date:</b>
Certification:		
<b>Completed by EPC-CP Personnel</b>		<input type="checkbox"/> Non-Reportable
<b>Date Received:</b>	<b>Severity Index:</b>	<input type="checkbox"/> Reportable
<b>Causal Analysis:</b>		

EPC-CP-QP-1007 Form 1                      Return Completed Form to EPC-CP (spearsen@lanl.gov)                      11/2019

<b>Spill Investigations</b>	No: EPC-CP-QP-1007	Page 18 of 20
	Revision: 0	Effective Date: 06/03/2020

**Attachment 3: 7/15 Day Release Report, EPC-CP-QP-1007-Form 2**

<b>RELEASE / DISCHARGE NOTIFICATION</b> LOS ALAMOS NATIONAL LABORATORY LA-UR- <span style="border: 1px solid black; padding: 0 20px;"> </span>		Calendar Year <div style="border: 1px solid black; padding: 5px; display: inline-block; font-size: 24px; font-weight: bold;">2020</div>
Permit Number: NM0028355		

---

NPDES or Operational Spill/Release <input checked="" type="checkbox"/> ER Spill/Release <input type="checkbox"/> Other Spill/Release <input type="checkbox"/>	} Indicate with "X" in appropriate box.	Release ID Number: <div style="border: 1px solid black; height: 20px; width: 100%;"></div>
---	---	---

---

Responsible Facility/User Group:

Contact Person:       Pager #:

Phone #:       Cell Phone #:

Release/Discharge Location:

TA:

Building:

If the release/discharge is associated with a NPDES Outfall, Potential Release Site (PRS) or Solid Waste Management Unit (SWMU), indicate the site/unit number and its relationship to the release/discharge:

NPDES Outfall: ☐    PRS: ☐    SWMU: ☐    PRS/SWMU Number:

Indicate with "X" in appropriate box(es).

Relationship of the Discharge to a SWMU or PRS:

Discharge Occurred: <span style="border: 1px solid black; display: inline-block; width: 60px; height: 20px;"></span>	Discharge Discovered: <span style="border: 1px solid black; display: inline-block; width: 60px; height: 20px;"></span>	Discharge Stopped: <span style="border: 1px solid black; display: inline-block; width: 60px; height: 20px;"></span>
Date & Time	Date & Time	Date & Time

Cleanup Started: <span style="border: 1px solid black; display: inline-block; width: 60px; height: 20px;"></span>	Cleanup Completed: <span style="border: 1px solid black; display: inline-block; width: 60px; height: 20px;"></span>
Date & Time	Date & Time

Material(s) Released / Discharged:

<b>Spill Investigations</b>	No: EPC-CP-QP-1007	Page 11 of 20
	Revision: 0	Effective Date: 06/03/2020

Release/Discharge Mitigation Method:

Weather Conditions:

Duration of Release/  
Discharge, in HOURS:

Est. Volume released, in  
gallons:

Est. Volume Recovered,  
in gallons.

Corrective Actions Taken (ie, type of BMPs, etc):

Nearest Watercourse (Canyon Name)

If the release/discharge reached a watercourse, describe the estimated surface area affected, presence of release/discharge now in the watercourse, and the media the release/discharge was detected in:

Depth to Groundwater, in FT, if known:

Distance to Nearest Drinking Water Well, in FT, if known:

Well ID#

#### 24-HOUR RELEASE / DISCHARGE NOTIFICATIONS

	Contact Person	Phone	Fax	Date & Time (or Comment)
EPA:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
NMED/SWQB:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
NMED/GWQB:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
NMED/HRMB:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
NMED/DOE-OB:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
EPC-CP:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
DOE:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
OTHER:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
OTHER:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Comments:

Form Completed By:

<b>Spill Investigations</b>	No: EPC-CP-QP-1007	Page 12 of 20
	Revision: 0	Effective Date: 06/03/2020

#### **7 DAY RELEASE / DISCHARGE ACTIONS**

7 Day Notice ☐

7 Day Notice Date:

7 Day Notice By:

Mark "X" when done.

Comments:

#### **15 DAY RELEASE / DISCHARGE ACTIONS**

15 day Follow-up Due:

15-day Follow-Up By:

Comments:

#### **NMED 30 DAY APPROVAL / DISAPPROVAL**


NMED 30 Day Response Date:

Comments:

Peter Maggiore, Acting Assistant Manager  
National Security Missions  
Los Alamos Field Office  
3747 West Jemez Road MS-A316  
Los Alamos, New Mexico 87544  
(505) 606-0397

Jennifer Payne, EPC Division Director  
Triad National Security, LLC.  
Los Alamos National Laboratory  
P.O. Box 1663, MS K404  
Los Alamos, New Mexico 87544  
(505) 667-2211

Attachment 23: **EPC-CP-QP-2110, MSGP STORMWATER POLLUTION PREVENTION PLAN  
PREPARATION AND MAINTENANCE**

<b>EPC-CP-QP-2110</b>	Revision: <b>0</b>	
Effective Date: 01/07/2020	Next Review Date: 01/07/2023	

**Environment, Safety, Health, Quality, Safeguards, and Security Directorate**  
**Environment Protection and Compliance – Compliance Programs Group**  
**Quality Procedure**

## MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance

<b>Hazard Grading:</b>	<input checked="" type="checkbox"/> Low	<input type="checkbox"/> Moderate	<input type="checkbox"/> High/Complex
<b>Usage Level:</b>	<input checked="" type="checkbox"/> Reference	<input type="checkbox"/> UET	<input type="checkbox"/> Mixed: UET Sections: _____
<b>Status:</b>	<input checked="" type="checkbox"/> New	<input type="checkbox"/> Major Revision	<input type="checkbox"/> Minor Revision
	<input type="checkbox"/> Review w/No Changes	<input type="checkbox"/> Other: _____	
<b>Safety Basis:</b>	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> USQ	<input type="checkbox"/> USI Number: _____

**Document Author/Subject Matter Expert:**

Name:	Organization:	Signature:	Date:
Holly L. Wheeler	EPC-CP	Signature on File	1-6-2020

**Derivative Classifier:** ☒ **Unclassified** or ☐ \_\_\_\_\_

Name:	Organization:	Signature:	Date:
Steven E. Wolfel	EPC-CP	Signature on File	1-6-2020

**Approval Signatures:**

EPC-CP Reviewer:	Organization:	Signature:	Date:
Terrill W. Lemke, Team Leader	EPC-CP	Signature on File	1-7-2020
EPC-CP RLM:	Organization:	Signature:	Date:
Taunia Van Valkenburg, Group Leader	EPC-CP	Signature on File	1-7-2020

*This copy is uncontrolled.*

*Users are responsible for ensuring they work to the latest approved version.*

*To document a required read, Login to [UTrain](#), and go to the Advanced Search.*

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 2 of 72
	Revision: 0	Effective Date: 01/07/2020

#### REVISION HISTORY

<b>Document Number and Revision</b> <i>[Include revision number, beginning with Revision 0]</i>	<b>Effective Date</b> <i>[Document Control Coordinator inserts effective date]</i>	<b>Description of Changes</b> <i>[List specific changes made since the previous revision]</i>
EPC-CP-QP-2110, Rev. 0	01/07/2020	New document

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 3 of 72
	Revision: 0	Effective Date: 01/07/2020

## Table of Contents

Revision History .....	2
1.0 Introduction .....	4
1.1 Purpose .....	4
1.2 Scope .....	4
1.3 Applicability .....	4
2.0 Precautions and Limitations .....	4
3.0 Preparing an MSGP Stormwater Pollution Prevention Plan .....	4
3.1 Gathering Information for the SWPPP .....	5
3.2 Preparing the SWPPP .....	5
4.0 Maintaining the MSGP SWPPP .....	7
4.1 Availability of the MSGP SWPPP .....	7
4.2 Additional Documentation Requirements .....	7
5.0 Revising the MSGP SWPPP .....	8
6.0 Training .....	9
7.0 Records .....	10
8.0 Definitions and Acronyms .....	10
8.1 Definitions .....	10
8.2 Acronyms .....	11
9.0 References .....	11
10.0 Attachments .....	11
Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example .....	12
Attachment 2: MSGP SWPPP Review Guidance Checklist Example .....	62



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 4 of 72
	Revision: 0	Effective Date: 01/07/2020

## 1.0 INTRODUCTION

The Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP), also referred to as the Permit, contains specific requirements for industrial activities of Los Alamos National Laboratory (LANL) covered by the permit. One requirement is the preparation, maintenance, and routine revision of a Stormwater Pollution Prevention Plan (SWPPP).

### 1.1 Purpose

Active MSGP facilities must be included in a SWPPP. The SWPPP is intended to document the selection, design, and installation of control measures to meet permit effluent limits. Additional documentation required by the Permit is to be kept with the SWPPP (including inspection maintenance, monitoring, and corrective action) and is intended to document the implementation of permit requirements.

### 1.2 Scope

This procedure contains information and specific steps for preparing a SWPPP, and identifying and documenting conditions in order to meet Permit requirements. Part 5 of the Permit contains specific requirements for developing, maintaining, and revising a SWPPP for facilities with stormwater discharge associated with industrial activities permitted under an MSGP. Part 5.5 describes the additional documentation required to be kept with the SWPPP.

### 1.3 Applicability

This procedure applies to Environmental Protection and Compliance-Compliance Programs (EPC-CP) technical staff, Deployed Environmental Professionals (DEPs), and subcontractor personnel (as applicable) who develop and maintain SWPPPs at MSGP regulated LANL facilities operated by Triad, LLC.

## 2.0 PRECAUTIONS AND LIMITATIONS

The hazard rating for the activities described in this procedure is **LOW** and does not require an Integrated Work Document.

## 3.0 PREPARING AN MSGP STORMWATER POLLUTION PREVENTION PLAN

Part 5 of the Permit contains the specific requirements for developing, maintaining, and revising a SWPPP. At a minimum, the SWPPP must contain the following elements:

- Stormwater pollution prevention team (Stormwater PPT);
- Site description (including a site map);
- Summary of potential pollutant sources;
- Description of control measures;

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 5 of 72
	Revision: 0	Effective Date: 01/07/2020

- Schedules and procedures;
- Documentation to support eligibility considerations under other federal laws; and
- Signature requirements.

Where the SWPPP refers to procedures in other facility documents, such as a Spill Prevention, Control and Countermeasure Plan or an Environmental Management System, copies of the relevant portions of those documents must be kept with the SWPPP.

The template provided in Attachment 1, EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* contains the elements required in a LANL MSGP SWPPP. Contact the MSGP Program Lead for questions regarding content.

### **3.1 Gathering Information for the SWPPP**

#### **SWPPP Preparer**

- [1] Contact the MSGP Program Lead for a copy of the most current SWPPP template.
- [2] Obtain a copy of the previous year's SWPPP for reference (if one is available).
- [3] Review the SWPPP template.
  - [a] Identify information that will need to be included in the SWPPP (e.g., MSGP sector, operational areas, Pollution Prevention Team member names, etc.).
  - [b] Identify documents that will need to be attached to the SWPPP (e.g., certifications, memorandums, maps, data summaries, endangered species reports, etc.).
- [4] Identify documents and/or reports that are provided by EPC-CP.
  - [a] Contact the MSGP Program Lead with a request for needed information.
- [5] Obtain maps as specified in the SWPPP template.
  - [a] Request a new map or update to existing map from the MSGP Program Lead.
  - [b] Provide a draft or map markup with information as required in the Permit.

### **3.2 Preparing the SWPPP**

#### **SWPPP Preparer**

- [1] Use a copy of the most current SWPPP template.
- [2] Add information to the relevant sections.
- [3] Text highlighted in yellow indicate areas to be replaced with facility specific information.

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 6 of 72
	Revision: 0	Effective Date: 01/07/2020

- [a] IF text is part of an instruction (e.g., **Insert site description text here.**)  
THEN delete the entire line and replace with the appropriate information.
  - [b] IF text is embedded as part of the line,  
THEN replace just the yellow highlighted text with appropriate information (e.g., delete **Sector XX-(Insert Sector Title)** and replace with *Sector P – Land Transportation & Warehousing*).
  - [4] Delete attachments that are not applicable to the active facility specific SWPPP.
  - [5] Attach other documentation (e.g., Spill Prevention, Control and Countermeasure Plan, Environmental Management System, copies of relevant portions of documents) as necessary.
  - [6] Send the draft SWPPP to the EPC-CP MSGP Program Lead and request a review.
- NOTE 1:** The EPC-CP MSGP Program Lead may delegate the review to personnel in the Storm Water Permitting/Compliance Team.

#### **MSGP Program Lead or Designee**

- [7] Review the SWPPP to ensure information required by the Permit is included.
  - [a] Encourage the use of the *MSGP SWPPP Review Guidance Checklist* as a best management practice to cross-check SWPPP content with the Permit. See checklist example in Attachment 2.
  - [b] Provide comments to the SWPPP Preparer.

#### **SWPPP Preparer**

- [8] The Preparer must resolve review comments with the MSGP Program Lead.
  - [9] Obtain the signature of a duly authorized representative (refer to Appendix B, Subsection 11 of the Permit) on the certification statements associated with the SWPPP and attachments (refer to Attachment 9 of the *MSGP SWPPP Template Example*).
- NOTE 2:** The Review & Approval System for Scientific and Technical Information (RASSTI) system requires upload of only PDF documents. It is highly recommended that all final certifications obtained contain a written signature rather than electronic signature. The RASSTI system adds a cover page to the document containing the LA-UR number, which obviates all electronic signatures due to the document change.

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 7 of 72
	Revision: 0	Effective Date: 01/07/2020

#### 4.0 MAINTAINING THE MSGP SWPPP

##### 4.1 Availability of the MSGP SWPPP

A complete copy of the current SWPPP is required to be kept at the active facility in an accessible format. The SWPPP must be immediately available to facility employees, EPA, and other entities identified in the Permit. The SWPPP must also be made available to the public. LANL meets this requirement by posting SWPPPs to the Public Reading Room internet web page. Refer to Part 5.4 of the Permit for more information.

##### SWPPP Preparer

- [1] Submit the final certified SWPPP in PDF format to the RASSTI system at *rassti.lanl.gov*.
  - [a] The SWPPP must be identified as Los Alamos Unlimited Release, or LA-UR, to be posted to the Public Reading Room.
  - [b] Identify a derivative classifier to review the document.
  - [c] Identify the document for a **full classification review**. The Designated Unclassified Subject Area, or DUSA, system may **NOT** be used.
  - [d] Identify a line manager for an approval signature.
  - [e] Identify the document for release to Public Reading Room.
- [2] Add the cover page containing the LA-UR number generated by the RASSTI system to the SWPPP.
- [3] Contact the RASSTI staff for questions and assistance using this system.

##### 4.2 Additional Documentation Requirements

The Permit requires additional documentation to be kept with the SWPPP that together keep records complete and up-to-date, and demonstrate full compliance with the conditions of the Permit. Some documents may be generated when a SWPPP is first written (e.g., copy of the permit). Other documents may be generated on an ongoing basis throughout a calendar year (e.g., inspections). Refer to Part 5.5 of the Permit for additional information.

##### SWPPP Preparer or Owner

- [1] IF any of the following documents are generated, THEN add the document to the facility SWPPP as soon as the document is generated and finalized (i.e., all signatures have been obtained).
  - A copy of the Notice of Intent to Discharge (NOI) submitted to EPA and correspondence exchanged between Triad, LLC and EPA specific to coverage under the permit;

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 8 of 72
	Revision: 0	Effective Date: 01/07/2020

**NOTE:** There may be several modifications to the NOI during a permit term. Ensure you coordinate with the MSGP Program Lead to confirm all modifications are included in the SWPPP.

- A copy of the acknowledgement received from the EPA assigning the NPDES permit identification number
- A copy of the permit;
- Documentation of maintenance and repairs of control measures (refer to Part 2.1.2.3 of the Permit);
- All inspections, including Routine Facility Inspections and Quarterly Visual Assessments (refer to Parts 3.1.2 and 3.2.2 of the Permit);
- Description of any deviations from the schedule for visual assessments and/or monitoring, and the reason for the deviations (refer to Parts 3.2.3 and 6.1.5 of the Permit);
- Corrective action documentation (refer to Part 4.4 of the Permit);
- Documentation of any benchmark exceedances and the type of response to the exceedance employed;
- Documentation to support any determination that pollutants of concern are not expected to be present above natural background levels if stormwater is discharged directly to impaired waters; and
- Documentation to support any claim that the facility has changed its status from active to inactive and unstaffed.

## **5.0 REVISING THE MSGP SWPPP**

The Permit specifies conditions that trigger a SWPPP review to ensure numeric and non-numeric effluent limits are met and to determine if modifications to stormwater controls are necessary (refer to Parts 4.1 and 4.2 of the Permit).

The SWPPP must also be modified based on corrective actions and deadlines required under Part 4.3 of the Permit, and documented in accordance with Part 4.4 of the Permit.

At a minimum, the SWPPP must be reviewed and revised once per calendar year, and no later than 45 days after conducting the final routine facility inspection for the year.

### **SWPPP Preparer or Owner**

- [1] The Stormwater PPT will review the SWPPP for the following at a minimum.
- The selection, design, installation, and implementation of control measures.
  - Sources of pollution.

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 9 of 72
	Revision: 0	Effective Date: 01/07/2020

- Spill and leak procedures.
  - Non-stormwater discharges (as applicable).
- [2] IF any of the following conditions occur or are detected during an inspection, monitoring or other means,  
THEN the Stormwater PPT must **immediately** review the SWPPP as specified above.
- Unauthorized release or discharge (e.g., spill, leak, discharge of non-stormwater not authorized by the permit);
  - A discharge violates a numeric effluent limit (refer to Table 2-1 of the Permit);
  - Controls measures are not stringent enough for discharge to meet applicable water quality standards or the non-numeric effluent limits in the permit;
  - A required control measure was never installed, installed incorrectly, or not in accordance with Parts 2 and/or 8, or is not properly operated or maintained;
  - Whenever a visual assessment shows evidence of stormwater pollution (e.g., foam, oil sheen, etc.).
  - Construction or a change in design, operation, or maintenance at the facility that significantly changes the nature of pollutants discharged in stormwater from the facility , or significantly increases the quantity of pollutants discharged;
- NOTE 1:** Changes include building removal or replacement, BMP removal or installation, outfall removal or creating a new outfall, changing drainage pathways or the path of stormwater flow.
- The average of four quarterly sampling results exceeds an applicable benchmark.
- NOTE 2:** If less than four benchmark samples have been taken, but the results are such that an exceedance of the four quarter average is mathematically certain this is considered a benchmark exceedance.
- [3] The Stormwater PPT must determine the modification(s) to be made to implement or maintain control measures and/or take corrective action.
- [4] The revision/modification(s) will be implemented at the facility.
- [5] The SWPPP will be revised/modified within 14 days of completion of a modification or corrective action to reflect the modification(s) made.
- [6] Obtain a signature and date from a duly authorized representative on all SWPPP revisions/modifications in accordance with Appendix B, Subsection 11 of the Permit.

## 6.0 TRAINING

The following personnel require training before implementing this procedure.

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 10 of 72
	Revision: 0	Effective Date: 01/07/2020

- Deployed Environment, Safety, and Health Group and Team Leaders
- EPC-CP MSGP stormwater compliance personnel
- DEPs
- Other LANL or subcontract personnel identified as being required to prepare and maintain MSGP SWPPPs as part of their job duties

All EPC-CP personnel that execute the activities specified in this procedure must meet the minimum qualification and training requirements for their position as identified EPC-CP-PIP-2101, NPDES Multi-Sector General Permit Program. This will include “self-study” (required reading) for this procedure as assigned and documented in accordance with ADOSH-TPP-301, *ADESH Training Program Plan*. Other participating LANL groups may require training documentation pursuant to local procedures.

Contract personnel that execute the activities specified in this procedure will be qualified and trained as required by the Exhibit D and Exhibit F. In addition, contract personnel will be required to complete “self-study” (required reading) of this procedure.

## 7.0 RECORDS

MSGP SWPPPs are signed and certified by a duly authorized representative of the individual facilities. These completed documents are maintained at the permitted facility, managed by the facility’s Records Management designated point-of-contact or document manager, and posted to the LANL public reading room. The MSGP team may retain a copy for reference purposes.

Below, are records generated as a result of implementing this procedure. Records generated are identified by title and type.

Record Title	QA Record	Non-QA Record
Stormwater Pollution Prevention Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>
MSGP SWPPP Review Guidance Checklist	N/A	N/A

## 8.0 DEFINITIONS AND ACRONYMS

### 8.1 Definitions

See LANL [Definition of Terms](#).

**Best Management Practice (BMP)** – Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of “waters of the United States.” BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage (*40 CFR Part 122.2*).

**Control Measure** – Any BMP or other method (including effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the United States.

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 11 of 72
	Revision: 0	Effective Date: 01/07/2020

## 8.2 Acronyms

See LANL [Acronym Master List](#).

EPA	Environmental Protection Agency
EPC-CP	Environmental Protection and Compliance-Compliance Programs
DEP	Deployed Environmental Professional
DUSA	Designated Unclassified Subject Area
LANL or the Laboratory	Los Alamos National Laboratory
LA UR	Los Alamos Unlimited Release
MSGP or Permit	Multi-Sector General Permit
NPDES	National Pollutant Discharge Elimination System
NOI	Notice of Intent to Discharge
SWPPP	Stormwater Pollution Prevention Plan
PDF	Portable Document Format
PPT	Pollution Prevention Team

## 9.0 REFERENCES

Unites States Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit for Stormwater Discharges Associated With Industrial Activity (MSGP)

Federal Register, Final National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Industrial Activities. Federal Register: June 16, 2015, Volume 80, Number 115

Clean Water Act, Title 33 U.S.C. 1251

## 10.0 ATTACHMENTS

**Attachment 1:** EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template* Example

**Attachment 2:** *MSGP SWPPP Review Guidance Checklist* Example



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 12 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example**  
(Page 1 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

## MSGP Stormwater Pollution Prevention Plan

**Insert Facility Name**

Triad National Security, LLC  
Los Alamos National Laboratory

**XX/XX/XXXX**

**Revision X**

EXAMPLE

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 13 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)**  
(Page 2 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

---

Page intentionally blank

EXAMPLE

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 14 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 3 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

## TABLE OF CONTENTS

PREFACE.....	6
1.0 FACILITY DESCRIPTION .....	6
1.1 Facility Information .....	6
1.2 Stormwater Pollution Prevention Team (PPT) .....	7
1.3 Site Description .....	8
1.4 General Location Map .....	8
1.5 Site Map .....	8
2.0 POTENTIAL POLLUTANT SOURCES.....	9
2.1 Potential Pollutants Associated with Industrial Activity .....	9
2.2 Spills and Leaks.....	9
2.3 Unauthorized Non-Stormwater Discharges .....	10
2.4 Salt Storage.....	10
2.5 Historical Data Summary .....	10
3.0 STORMWATER CONTROL MEASURES.....	11
3.1 Non-Numeric Technology-Based Effluent Limits .....	11
3.1.1 Minimize Exposure.....	11
3.1.2 Good Housekeeping.....	11
3.1.3 Maintenance.....	11
3.1.4 Spill Prevention and Response.....	12
3.1.5 Erosion and Sediment Control .....	12
3.1.6 Management of Runoff.....	12
3.1.7 Salt Storage Piles or Piles Containing Salt.....	13
3.1.8 Dust Generation and Vehicle Tracking of Industrial Materials.....	13
3.2 Numeric Effluent Limitations Based on Effluent Limitations Guidelines.....	13
3.3 Water Quality-Based Effluent Limitations and Water Quality Standards.....	13
4.0 SCHEDULES AND PROCEDURES .....	13
4.1 Good Housekeeping .....	13
4.2 Maintenance.....	13
4.3 Spill Prevention and Response .....	14
4.4 Erosion and Sediment Control .....	14
4.5 Employee Training.....	14
4.6 Routine Facility Inspections and Quarterly Visual Assessments .....	15

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 15 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**

(Page 4 of 50)

Insert Facility Name

MSGP Stormwater Pollution Prevention Plan

Document Reference Number

Revision X, Date

4.6.1

Routine Facility Inspections

15

4.6.2

Quarterly Visual Assessments

16

4.7

Monitoring

16

5.0

DOCUMENTATION FOR ELIGIBILITY CONSIDERATIONS UNDER OTHER FEDERAL LAWS

20

5.1

Endangered Species

20

5.2

Historic Properties

20

6.0

CORRECTIVE ACTIONS AND DEADLINES

20

6.1

Immediate Actions

21

6.2

Subsequent Actions

21

6.3

Corrective Action Documentation

21

7.0

ACRONYMS

22

8.0

SWPPP CERTIFICATION

23

FIGURE A:

GENERAL LOCATION MAP

24

FIGURE B:

MAP(S)

25

ATTACHMENT 1:

NOTICE OF INTENT, SUPPORTING DOCUMENTATION, AND UPDATES

26

ATTACHMENT 2:

SWPPP AMENDMENTS

27

ATTACHMENT 3:

CERTIFICATION OF NO UNAUTHORIZED STORMWATER DISCHARGES

28

ATTACHMENT 4:

DULY AUTHORIZED SIGNATORY MEMORANDUM

29

ATTACHMENT 5:

DISCHARGE MONITORING REPORTS

30

ATTACHMENT 6:

ANNUAL REPORTS

31

ATTACHMENT 7:

ROUTINE FACILITY INSPECTIONS

32

ATTACHMENT 8:

QUARTERLY VISUAL ASSESSMENTS

33

ATTACHMENT 9:

CORRECTIVE ACTION DOCUMENTATION AND CERTIFICATION

34

ATTACHMENT 10:

SCHEDULED MAINTENANCE LOG

35

ATTACHMENT 11:

TRAINING DOCUMENTATION

36

ATTACHMENT 12:

MSGP (OR ACTIVE URL)

37

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 16 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 5 of 50)

	<small> Insert Facility Name  MSGP Stormwater Pollution Prevention Plan  Document Reference Number  Revision X, Date </small>
ATTACHMENT 13: THREATENED AND ENDANGERED SPECIES HABITAT MANAGEMENT PLAN FOR LOS ALAMOS NATIONAL LABORATORY .....	38
ATTACHMENT 14: MSGP IPAC TRUST RESOURCES REPORT .....	39
ATTACHMENT 15: EPC-CP-PIP-2101, NPDES MULTI-SECTOR GENERAL PERMIT .....	40
ATTACHMENT 16: EPC-CP-QP-023, MSGP ROUTINE FACILITY INSPECTIONS .....	41
ATTACHMENT 17: EPC-CP-QP-022, MSGP CORRECTIVE ACTIONS .....	42
ATTACHMENT 18: EPC-CP-QP-064, MSGP STORMWATER VISUAL ASSESSMENTS .....	43
ATTACHMENT 19: EPC-CP-QP-047, INSPECTING STORMWATER RUNOFF SAMPLERS AND RETRIEVING SAMPLES FOR THE MSGP .....	44
ATTACHMENT 20: EPC-CP-QP-2106, PROCESSING MSGP STORMWATER SAMPLES .....	45
ATTACHMENT 21: EPC-DO-QP-101, ENVIRONMENTAL REPORTING REQUIREMENTS FOR RELEASES OR EVENTS .....	46
ATTACHMENT 22: EPC-CP-QP-007, SPILL INVESTIGATIONS .....	47
ATTACHMENT 23: EPC-CP-QP-2110, MSGP STORMWATER POLLUTION PREVENTION PLAN PREPARATION AND MAINTENANCE .....	48
ATTACHMENT 24: LOCAL PROCEDURE .....	49
ATTACHMENT 25: LOCAL PROCEDURE .....	50



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 17 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 6 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

Insert Name of Facility  
**STORMWATER POLLUTION PREVENTION PLAN**

**PREFACE**

This Stormwater Pollution Prevention Plan (SWPPP) was developed in accordance with the provisions of the Clean Water Act (33 U.S.C. §§1251 et seq., as amended), and the *United States Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP)* (U.S. EPA, June 2015) issued by EPA. The SWPPP uses the industry specific permit requirements for Sector XX-(Insert Sector Title) as a guide. The applicable stormwater discharge permit is EPA General Permit Identification Tracking Number NMR050013 [Triad National Security, LLC (Triad)]. Click here to view contents of the [2015 Multi-Sector General Permit](#).

This SWPPP applies to discharges of stormwater from the operational areas of (List the operational areas) at Los Alamos National Laboratory. Los Alamos National Laboratory (also referred to as LANL or the "Laboratory") is owned by the Department of Energy (DOE), and is operated by Triad. Throughout this document, the term "facility" refers to (Insert facility name). The current MSGP expires at midnight on June 4, 2020.

**1.0 FACILITY DESCRIPTION**

**1.1 Facility Information**

Name of Facility: <u>(Insert facility name e.g., TA-3-22 Power and Steam Plant)</u>		
Street: P.O. Box 1663		
City: Los Alamos	State: NM	ZIP Code: 87545
County: Los Alamos		
NPDES ID (i.e., permit tracking number): NMR050013		
Primary Industrial Activity SIC code, and Sector and Subsector (2015 MSGP, Appendix D and Part 8): SIC <u>XXXX</u> , Sector <u>X</u> , Subsector <u>XX</u>		
Estimated area of industrial activity at site exposed to stormwater: <u>XX</u> acres		
<b>Discharge Information</b>		
Name(s) of surface water(s)/segment that receives stormwater from your facility: Sandia Canyon (Sigma Canyon to NPDES outfall 001). Note: For Roads and Grounds also add "and Mortandad Canyon (within LANL)". Note: For Asphalt Batch Plant alone, delete Sandia Canyon information and insert only "Mortandad Canyon (within LANL)."		
Does this facility discharge industrial stormwater directly into any segment of an "impaired water" (see definition in 2015 MSGP, Appendix A)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Pollutants causing the impairment: <u>(Insert pollutants: list can be found in the Triad Notice of Intent (NOI))</u>		

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 18 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 7 of 50)

Insert Facility Name  
MSGP Stormwater Pollution Prevention Plan  
Document Reference Number  
Revision X, Date

Pollutants causing the impairment (see above) that may be present in industrial stormwater discharges from this Facility:
Are any of your stormwater discharges subject to effluent limitation guidelines (ELGs) (2015 MSGP Table 1-1)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes, which guidelines apply? (Note: Asphalt Batch Plant is subject to ELGs) Not applicable.

**1.2 Stormwater Pollution Prevention Team (PPT)**

Insert a description of the team

The specific duties of individual team members of the PPT are listed in the table below.

Staff Names	Individual Responsibilities
<b>Group Leader:</b> Name Title, Organization	Responsible for the management of all environmental, safety, health, and quality programs for the yards, buildings and facilities within this Plan. This includes performing oversight and periodic walk downs to ensure implementation of the requirements of the MSGP and this SWPPP including overseeing the assigned duties of other PPT members. The Group Leader is responsible for ensuring problems noted during inspections are corrected. The Group Leader must also ensure adequate resources are obtained to ensure compliance requirements of the MSGP and this SWPPP are met.
<b>Deployed Environmental Professional (DEP):</b> Name Title, Organization	Responsible for the management of all environmental programs and issues for the yards, buildings and facilities listed within this Plan. The DEP is responsible for training, recordkeeping, and SWPPP revision. The DEP ensures documentation of inspections and other required MSGP records relative to the SWPPP are managed in accordance with the Permit and established document control procedures and that the SWPPP is kept current. The DEP provides technical and regulatory support to facility and operations personnel regarding implementation of the MSGP and this SWPPP. Lastly, the DEP conducts routine facility inspections and if necessary, visual assessments, in accordance with the Permit. Identified conditions requiring corrective actions from routine facility inspections are entered into the Environmental Protection and Compliance-Compliance Programs (EPC-CP) Corrective Action Report (CAR) database. The DEP is responsible for tracking and updating the status of corrective actions that cannot be implemented immediately.
<b>Facility Operations Division (FOD) Manager:</b> Name Title, Organization	Responsible for managing the maintenance and operation of all aspects of the yards, buildings and facilities listed within this Plan. The manager shall provide review and ensure coordination with core personnel and the PPT, as appropriate, when tenants within



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 19 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 8 of 50)

Insert Facility Name  
MSGP Stormwater Pollution Prevention Plan  
Document Reference Number  
Revision X, Date

	the FOD propose new processes, operations, features, or a new site that may be subject to the MSGP.
<b>EPC Core:</b>  Name Title, Organization	The MSGP Program Lead is responsible for managing and administering the MSGP Program for all industrial facilities operated by Triad within Los Alamos National Laboratory. The MSGP Program Lead advises and provides guidance to facility or operations personnel on NPDES MSGP regulations/requirements. The Program Lead also acts as the institutional point of contact for all interactions with the regulatory authority (EPA) and supervises personnel implementing stormwater monitoring requirements for the facility.
<b>Operations Manager(s):</b>  Name Title, Organization	Responsible for day-to-day operations at the facility. Assists the DEP and EPC with inspections; spill reporting; implementing, installing and maintaining storm water controls (also known as Best Management Practices) (BMPs); and providing documentation as requested by other team members. The Operations Manager is key to ensuring adequate communication and coordination of issues regarding implementation of the MSGP and this Plan. Operations Managers also assist the DEP/EPC with SWPPP training and/or briefings, as requested.

**1.3 Site Description**

Insert text with site description. Include information on type of operation(s), industrial operating equipment (associated with the Asphalt Batch Plant and the TA-3-22 Power and Steam Plant), main structures, activities, outfalls, and substantially identical outfalls.

**1.4 General Location Map**

The general location map for the facility can be found in Figure A. Figure B-X (if you have more than one site map, list them all here) contains all site maps and identifies all receiving waters associated with stormwater discharges from the facility. X percent of the site flows to (Insert canyon name). The canyon at this location is a (Insert stream type e.g., perennial, ephemeral, intermittent) and eventually flows to the Rio Grande approximately X miles southeast of the site.

**1.5 Site Map**

The site map is provided as Figure B-X (if you have more than one site map, list them all here) and illustrates the facility's activities: including facility boundary, structures, impervious surfaces, industrial activity areas, spills, operational areas, drainage patterns, stormwater controls, monitoring locations, outfalls and nearby receiving streams.

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

- **Site boundaries and acreage.** The site covers approximately X acres.
- **Significant structures and impervious surfaces.** The site is X percent impervious, primarily structures and paved lots.



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 20 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 9 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

- **Direction of stormwater flow and site drainage.** Direction of flow is indicated with arrows.
- **Locations of stormwater control measures.**
- **Locations of all receiving waters.** In the immediate vicinity of the facility, (Indicate if any of the waters are Impaired and, if so, whether the waters have TMDLs established for them. See paragraph below this list). Also, indicate if the receiving water includes a wetland. A map of nearby receiving waters is provided as Figure B-X.
- **Locations of all stormwater conveyances.** This includes all ditches, pipes, and swales.
- **Locations of potential pollutant sources.**
- **Locations of significant spills or leaks.**
- **Locations of all stormwater monitoring points.**
- **Locations of stormwater inlets and outfalls.** Of which each will require a unique identification code for each outfall (e.g., Outfall 005, etc.), indicating if you are treating one or more outfalls as "substantially identical" and an approximate outline of the areas draining to each outfall.
- This facility is not associated with a municipal separate storm sewer system (MS4).
- **Areas of designated critical habitat for endangered or threatened species.** There are (Insert "no areas" or a number of areas) in the direct vicinity of the facility. However, a map for threatened and endangered species within LANL property is included as Figure B-X.
- **Locations of the following activities where such activities are exposed to precipitation:**
  - Insert all facility activities exposed to stormwater (e.g., fueling locations; loading/unloading areas; locations used for the treatment, storage, or disposal of wastes; liquid storage tanks; processing and storage areas; machinery; location and sources of run-on to the site; transfer areas for substances in bulk; immediate access roads used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; and vehicle and equipment maintenance and/or cleaning areas. Only include the activity areas specific to the facility (for example, if you do not refuel within the active facility boundary, do not include "fueling locations" in this bulleted list). Use a secondary bullet list level in this section.

## 2.0 POTENTIAL POLLUTANT SOURCES

Industrial activities that could potentially result in releases to the environment are summarized in 2.1 below. The site map for the facility is provided in Figure B-1.

Insert text describing structures and industrial activities that could potentially result in a release to the environment. Include information on location (e.g. inside, outside), associated containment, protection (e.g., roofed areas or coverings), and other devices or practices to prevent or contain spills, prevent run-on and run-off.

### 2.1 Potential Pollutants Associated with Industrial Activity

List specific areas and activities that could potentially result in a release to the environment and the constituents that may be released. Include a list of any Solid Waste Management Units and Areas of Concern (also known as Consent Order Sites or Potential Release Sites) with a description of each and associated potential pollutants/contaminants.

### 2.2 Spills and Leaks

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 21 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 10 of 50)

Insert Facility Name  
MSGP Stormwater Pollution Prevention Plan  
Document Reference Number  
Revision X, Date

Insert information on spill and leak history at the facility, if any. Text may be in table format as shown below.

Date	Description	Outfall(s) Affected

Insert information on areas where spills and leaks could occur at the facility. Text may be in table format as shown below.

Specific Equipment/Industrial Activity Areas and Location	Outfall(s) Affected

In the event of any future spill or leak at any of the facility areas, a spill report, documenting the occurrence and the nature of the spill or leak, will be completed. The spill report will be filed promptly upon completion and documentation of the spill clean-up, and will be summarized in this section of the SWPPP. In addition, spills within MSGP facility boundaries will be entered as conditions requiring corrective action in the MSGP CAR database and will be updated as corrective action occurs, in accordance with EPC-CP-QP-022, *MSGP Corrective Actions*.

The probability of spills or releases at the facility is minimized by (Insert information on how the facility will minimize spills and leaks).

### 2.3 Unauthorized Non-Stormwater Discharges

Insert information describing any NPDES permitted non-stormwater discharges, unpermitted outfalls, or unauthorized discharges associated with the facility. Describe any potential sources of non-stormwater discharges (e.g., testing of fire hydrants) and where wastewater drains to. Include a reference to the "Non-Stormwater Discharge Assessment and Certification" and indicate that it is provided in Attachment 3.

### 2.4 Salt Storage

Insert text describing salt storage areas at the facility, if present. If none exists, state salt is not stored at the facility.

### 2.5 Historical Data Summary

The following tables provide monitoring data at the facility for the past X years.

Permitted Facility: (insert facility name)

Calendar Year XXXX

Contact MSGP Program Lead to obtain this information formatted for insertion.

**Note:** This information will be updated every year during the annual SWPPP update, to include the 3 most current years of monitoring data.



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 22 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 11 of 50)

Insert Facility Name  
MSGP Stormwater Pollution Prevention Plan  
Document Reference Number  
Revision X, Date

### 3.0 STORMWATER CONTROL MEASURES

Control measures at the facility are designed to minimize the potential release of pollutants that could adversely affect water quality. Insert text with stormwater control measure information.

#### 3.1 Non-Numeric Technology-Based Effluent Limits

Insert text with non-numeric technology-based effluent limits information. Note: This is specific to Sectors A, AA, N, O and P.

##### 3.1.1 Minimize Exposure

Insert text describing all structural controls (structures or covers) or practices used to minimize the exposure of industrial activities to precipitation. The SWPPP must describe where the controls or practices are being implemented at the facility. Examples of exposure-minimizing control measures include: location and extent of grading, berms, curbs used to contain contaminated stormwater or divert it around areas of industrial activity, materials stored within secondary containment, location of spill cleanup kits, schedule for employee spill abatement and cleanup training, procedure or practices for storage of leaky vehicles and equipment.

##### 3.1.2 Good Housekeeping

Good housekeeping practices specifically applicable to the prevention of stormwater contamination include the following measures: Insert text describing any practices implemented to keep exposed areas at the facility clean. Describe where each practice is being implemented at the facility. Examples of good housekeeping control measures include how workspaces are maintained; routine inspections of heavy equipment, other equipment and waste containers; inspections of material storage areas; identifying specific personnel/positions responsible for emptying drip pans, etc. Refer to Section 4.1 of this document for specific schedules for waste and recyclable material pickup and sweeping.

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

##### 3.1.3 Maintenance

Control measures at the facility will be kept in effective operating condition by the implementation of scheduled preventive maintenance, standard operating procedures (SOPs), engineering guidance, and manufacturer's specifications as applicable. If control measures need to be replaced or repaired to maintain compliance with the 2015 MSGP, necessary modifications will be made according to the timelines specified in the *Corrective Action and Deadlines* requirements of Section 6.0 of this SWPPP.

Deficient items identified during routine facility inspections, walk-downs, or by any other means of identification, will be documented on the routine facility inspection forms and entered into the MSGP CAR database. The condition requiring corrective action will remain open until proper maintenance or

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 23 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 12 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

corrective action has been completed. CAR information, along with documentation of maintenance/repair of control measures, is in Attachment 9 of the SWPPP.

Insert text identifying how industrial equipment is maintained to avoid leaks or other releases. Also, include information on how site-specific control measures are maintained to ensure effective operating condition.

#### 3.1.4 Spill Prevention and Response

Spills, leaks, or other releases will be prevented and minimized by (insert information on how the facility prevents and minimizes unauthorized releases).

Insert text describing the general facility approach to spill cleanup.

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

Unauthorized releases or discharges within industrial facility boundaries are entered into the MSGP Corrective Action Reporting database in accordance with EPC-CP-QP-022, *MSGP Corrective Actions*. In addition, the completion of an Unplanned Release Report is required in the event of a spill. The report will be submitted to EPC-CP personnel and handled according to internal spill record keeping procedures. Spills may be "reportable" (requiring external agency notification) depending on the nature of the spilled material and the location of the release. External agency notification may consist of verbal and/or written notification to the National Response Center, Environmental Protection Agency Region VI, or the New Mexico Environment Department (NMED). EMD-ER, the FOD and EPC-CP, in accordance with Laboratory and DOE policies and federal and state regulatory reporting requirements, will make the determination for the type of reporting required. EPC-DO-QP-101, *Environmental Reporting Requirements for Releases or Events* is used for this purpose (see Attachment 21).

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

#### 3.1.5 Erosion and Sediment Control

Insert text describing how erosion at the facility and sediment transport off the facility is prevented/minimized. Erosion control measures that prevent soil or sediment from becoming mobilized should be used as the primary line of defense. Sediment control measures that trap, infiltrate, or settle out mobilized sediments, should be used to back-up the erosion control measures.

#### 3.1.6 Management of Runoff

Insert text describing how the facility manages stormwater runoff. This will include a description of controls used to divert, infiltrate, reuse, contain, or otherwise reduce stormwater runoff. Installed or utilized control measures may be listed with a description of their function at the facility.



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 24 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 13 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

**3.1.7 Salt Storage Piles or Piles Containing Salt**

Insert text describing how the facility manages salt storage piles or piles containing salt. Offloading operations should occur within contained areas with appropriate measures in place to prevent off-site migration or track out of salt from the contained area. Installed or utilized control measures may be listed with a description of their function at the facility. If none exists, state salt is not stored at the facility.

**3.1.8 Dust Generation and Vehicle Tracking of Industrial Materials**

Insert text describing how the facility manages dust generation and vehicle tracking.

**3.2 Numeric Effluent Limitations Based on Effluent Limitations Guidelines**

Insert information identifying the facility as meeting or not meeting the industrial category requirements for effluent monitoring as listed in Part 2.1.3 (*Table 2-1 Applicable Effluent Limitation Guidelines*) of the 2015 MSGP and if benchmark monitoring is or is not required.

If the permit does identify sector-specific requirements for the facility, insert a description of specific controls implemented at the facility to ensure numeric effluent limits are met.

**3.3 Water Quality-Based Effluent Limitations and Water Quality Standards**

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

Stormwater from (insert facility name) discharges to (insert canyon name). Insert information on canyon reaches identified as impaired waters, pollutants causing the impairment, and approved or established TMDLs for the canyon. Also, insert specific information relative to the controls measures used to ensure discharges from industrial activities meet the water quality standards.

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

**4.0 SCHEDULES AND PROCEDURES**

Preventative maintenance of control measures used to comply with the Permit effluent limits can avoid situations that result in discharges to the environment. Part 5.2.5 of the 2015 MSGP specifies control measures will have a schedule or frequency for maintenance and procedures specifying how maintenance is conducted. Part 5.5 requires documentation of maintenance and repairs including the date(s) of regular maintenance. See Attachment 10 for the Scheduled Maintenance Log.

**4.1 Good Housekeeping**

Insert a schedule for housekeeping activities such as waste and recyclable material (scrap metal, wood tires) pickup, street sweeping, etc. and identify any procedures used to ensure this occurs.

**4.2 Maintenance**

Insert a discussion of and schedule for preventative or regular maintenance of equipment such as oil/water separators, culvert clean outs, other control measures, etc. Note: Industrial equipment will be

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 25 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 14 of 50)

Insert Facility Name  
MSGP Stormwater Pollution Prevention Plan  
Document Reference Number  
Revision X, Date

maintained so that leaks and other releases are avoided. All control measures will be maintained in effective operation condition.

#### **4.3 Spill Prevention and Response**

Insert a discussion of and schedule for preventing and responding to spills and leaks such as regular maintenance of equipment, placing pans under heavy equipment, and maintaining spill kits. Also, specify cleanup equipment, procedures and spill logs, and identify how often employees are trained in spill response procedures, as appropriate.

#### **4.4 Erosion and Sediment Control**

Insert a discussion of and schedule for preventative or regular maintenance of erosion, sediment and velocity control measures. If polymers and/or other chemical treatments are used as erosion or sediment control measures, identify them and include a regular schedule for reapplication. Also, include a schedule for restocking these materials to ensure the facility does not run out.

#### **4.5 Employee Training**

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

Per Part 2.1.2.8 of the 2015 MSGP, training relevant to the SWPPP and MSGP is required for all workers at the facility that work in areas where industrial materials or activities are exposed to stormwater (MSGP sites); workers, managers, and supervisors who are responsible for implementing activities necessary to meet the conditions of this permit (e.g., inspectors, maintenance personnel); and all members of the PPT. Training is designed to ensure these personnel understand the MSGP and SWPPP requirements, as well as their specific responsibilities regarding these requirements.

Training provided and assigned to these personnel cover both the specific control measures used at the facility; along with monitoring, inspection, planning, reporting, and documentation requirements described in this SWPPP. Training will be conducted at least annually. The DEP, Deployed Environment Safety and Health (DESH) Group Leader and Pollution Prevention Team members are responsible for ensuring all appropriate personnel receive this training. It is suggested to add a list of job titles per facility that require training (e.g., Mechanics, Heavy Equipment Operators, PPT members, Operations Manager(s), etc.).

Training activities are documented in accordance with LANL's Training Standards. In cases where training is formalized enough to require specific curricula and reoccurrence, the training activity will be recorded in LANL's official U-TRAIN database. Informal briefings, such as those included in-group safety meetings are not typically recorded in U-TRAIN. Sign-in sheets are used to document attendance and will be kept on file in Attachment 11 of this SWPPP.

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



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 26 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 15 of 50)

Insert Facility Name  
MSGP Stormwater Pollution Prevention Plan  
Document Reference Number  
Revision X, Date

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

#### **4.6 Routine Facility Inspections and Quarterly Visual Assessments**

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

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

##### **4.6.1 Routine Facility Inspections**

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

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

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

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

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

Inspections performed by the PPT member are documented by completing the routine facility inspection form, which identifies all conditions requiring corrective action and other potential stormwater pollution issues that were encountered. All conditions requiring corrective actions identified during the inspection are addressed in accordance with Section 6.0 *Corrective Actions and Deadlines* of this plan. Facility personnel or the DEP may also perform daily, weekly, or other periodic facility surveys (walk downs)



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 27 of 72
	Revision: 0	Effective Date: 01/07/2020

## Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example (cont.)*

(Page 16 of 50)

Insert Facility Name  
MSGP Stormwater Pollution Prevention Plan  
Document Reference Number  
Revision X, Date

between monthly routine inspections to ensure compliance with the SWPPP and MSGP. Completed routine facility inspection forms are provided in Attachment 7 of this SWPPP and meet the requirements listed in the 2015 MSGP (Part 3.1.2.).

### 4.6.2 Quarterly Visual Assessments

Once each quarter, (April 1-May 31, June 1-July 31, August 1-September 30, October 1-November 30) a stormwater sample is obtained and visual assessment performed at each outfall, if a measurable storm event occurred. A qualified member of the PPT (DEP, EPC-CP field team member or MSGP Program Lead) conducts the visual assessment. The visual assessment will be:

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

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

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

Exceptions to visual assessments:

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

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

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

### 4.7 Monitoring

Analytical monitoring comprised of Impaired Waters [insert Effluent Limitation Guideline monitoring for industrial activity identified in Tables 1-1 and 6-1 of the 2015 MSGP (for example the Asphalt Batch Plant)] monitoring is performed annually on stormwater discharges from the site. Benchmark constituents are monitored quarterly. Monitoring occurs when storm events result in an actual discharge from the site and follow the preceding measurable storm event by at least 72 hours (3 days), unless documented that the storm event is representative of local storm events during the sampling

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 28 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 17 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

period. For runoff from snowmelt, the monitoring is performed at a time when a measurable discharge from the site occurs.

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

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

Monitoring occurs at automated sampling station [insert automated sampler identifier (e.g., MSGP07501)] as identified in Section 1.5. Discharge from the facility is (insert cardinal direction) to (insert canyon name) (impaired waters), which is a tributary of the Rio Grande located approximately X miles east of the facility.

Outfall (insert substantially identical outfall identification number) is "substantially identical" to Outfall (insert monitored outfall identification number) based on (insert the following information: industrial activities conducted in the drainage area, description of control measures implemented in the drainage area of each outfall, description of exposed material located in the drainage area of each outfall that are likely to be significant contributors of pollutants to stormwater discharges, and an estimate of the runoff coefficient of the drainage areas). Outfall locations are shown on the site map provided in Figure B-1. Note: Delete this paragraph if the facility has no substantially identical outfalls. If the facility has multiple maps, reference them all.

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

If the impaired water or benchmark constituent value exceeds the New Mexico Water Quality criterion (insert or ELG value is exceeded, if applicable), the Pollution Prevention Team will:

- Review the selection, design, installation, and implementation of control measures to determine if modifications are necessary to meet the effluent limits;
- Implement the necessary modifications within the timeframe specified for corrective action; and
- Continue benchmark or annual monitoring of the constituent (as required by Part 6.2 of the 2015 MSGP);
- If an ELG is exceeded, follow-up monitoring within 30 calendar days (or during the next qualifying runoff event) of implementing corrective action(s) is required. When follow-up monitoring exceeds the applicable effluent limitation, an exceedance report is submitted to EPA and monitoring continues at least quarterly, until the discharge complies with the effluent limit.

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

- The date, exact place, and time of sampling or measurements;
- The date and duration (in hours) of the rainfall event
- Rainfall total (in inches) for that rainfall event



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 29 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 18 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

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

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

Insert information on quarterly benchmark and annual Impaired Waters or Effluent Limitation Guideline monitoring required for facility and benchmark pollutants to be sampled.

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

- EPC-CP-QP-047, *Inspecting Stormwater Runoff Samplers and Retrieving Samples for the MSGP* (Attachment 19)
- EPC-CP-QP-2106, *Processing MSGP Stormwater Samples* (Attachment 20).

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

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 30 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)**  
(Page 19 of 50)

**Summary of Monitoring Requirements**

Outfalls: (insert outfall numbers)

Contact MSGP Program Lead to obtain this information formatted for insertion.

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

EXAMPLE

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 31 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 20 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

## 5.0 DOCUMENTATION FOR ELIGIBILITY CONSIDERATIONS UNDER OTHER FEDERAL LAWS

### 5.1 Endangered Species

The Final Site-Wide Environmental Impact Statement (EIS) for the Operation of Los Alamos National Laboratory (DOE/EIS-0380) was issued in May 2008, and a Record of Decision in September 2008. Stormwater issues and associated pollution prevention requirements and activities at LANL are analyzed in Chapters 4 and 5 of the 2008 Site-Wide EIS. These activities are integrated into environmental reviews on a project-specific level through LANL's Integrated Review Tool (IRT), which incorporates both the Excavation Permit (EX-ID) and Permit Requirements Identification (PR-ID) process. Stormwater issues are identified and pollution prevention activities are implemented during the design and construction phases of all LANL projects, and as part of facility operations, including routine maintenance. LANL staff monitors stormwater pollution prevention compliance at MSGP sites in accordance with Section 4.7 *Monitoring* of this plan. Corrective actions are taken as necessary as described in Section 6.0 *Corrective Actions and Deadlines* of this plan.

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

### 5.2 Historic Properties

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

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

## 6.0 CORRECTIVE ACTIONS AND DEADLINES

When any of the following conditions occur or are detected during an inspection, monitoring or any other means, this SWPPP (e.g., sources of pollution; spill and leak procedures; non-stormwater discharges; the selection, design, installation and implementation of control measures) is reviewed and

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 32 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 21 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

revised (as appropriate). The purpose is to ensure effluent limits of the 2015 MSGP permit are met and pollutant discharges are minimized:

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

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

- Construction or a change in design, operation, or maintenance at the facility significantly changes the nature of pollutants discharged in stormwater from the facility, or significantly increases the quantity of pollutants discharged; or
- The average of 4 quarterly sampling results exceeds an applicable benchmark. If less than 4 benchmark samples have been taken, but the results are such that an exceedance of the 4 quarter average is mathematically certain (i.e., if the sum of quarterly sample results to date is more than 4 times the benchmark level) this is considered a benchmark exceedance, triggering this review (see Section 4.7); or
- If an impaired water constituent exceeds the NM Water Quality criterion (see Section 4.7).

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

#### **6.1 Immediate Actions**

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

#### **6.2 Subsequent Actions**

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

#### **6.3 Corrective Action Documentation**



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 33 of 72
	Revision: 0	Effective Date: 01/07/2020

## Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)

(Page 22 of 50)

Insert Facility Name  
MSGP Stormwater Pollution Prevention Plan  
Document Reference Number  
Revision X, Date

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

### 7.0 ACRONYMS

BMP	Best Management Practice
CAR	Corrective Action Report
DEP	Deployed Environmental Professional
DESH	Deployed Environmental Safety and Health
DOE	Department of Energy
EIS	Environmental Impact Statement
ELG	Effluent Limitation Guidelines
EMD-ER	Emergency Management Division-Emergency Response
EPA	Environmental Protection Agency
EPC-CP	Environmental Protection and Compliance – Compliance Programs
FOD	Facility Operations Division
IPaC	Information for Planning and Consultation
LANL or the Laboratory	Los Alamos National Laboratory
MSGP or Permit	Multi-Sector General Permit
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
PPT	Pollution Prevention Team
SWPPP	Stormwater Pollution Prevention Plan
URL	Uniform Resource Locator



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 34 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 23 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

**8.0 SWPPP CERTIFICATION**

**STORMWATER POLLUTION PREVENTION PLAN**  
 (Insert Facility Name)  
 Los Alamos National Laboratory

**CERTIFICATION STATEMENT**

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

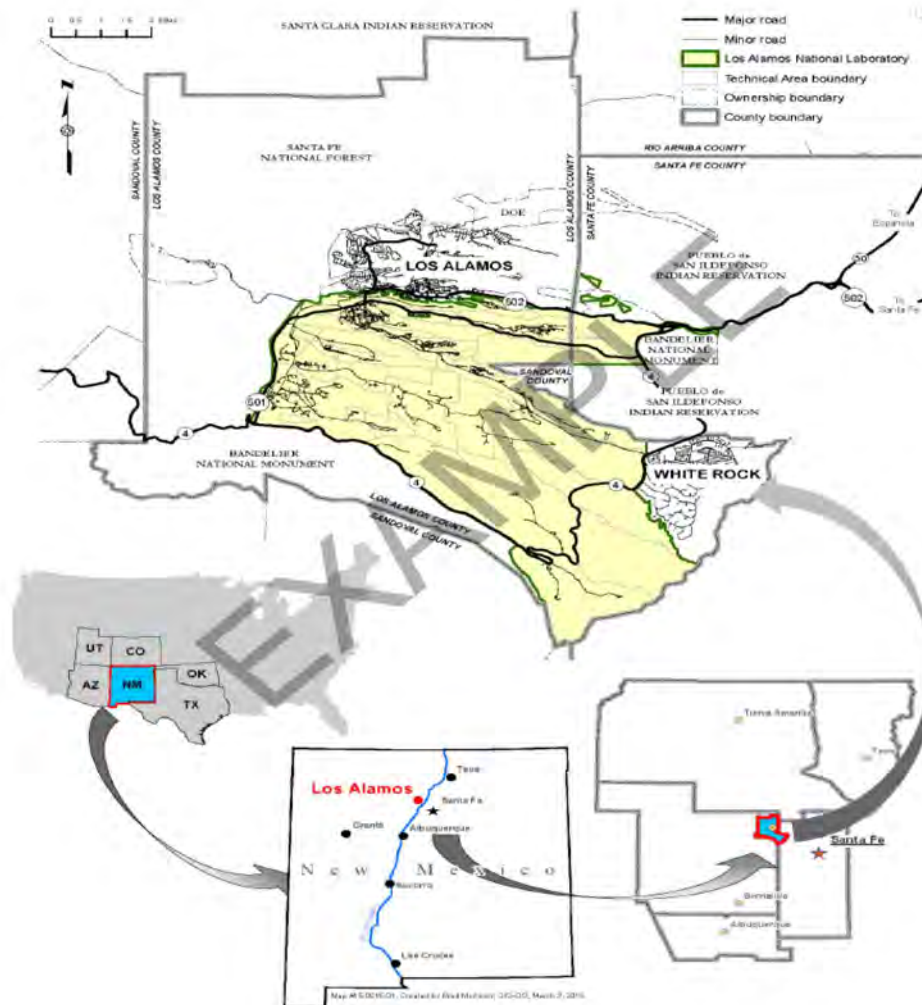
Signature \_\_\_\_\_ Date \_\_\_\_\_  
 (Insert Printed Name)  
 (Insert Title)

MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance	No: EPC-CP-QP-2110	Page 35 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 24 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

**FIGURE A: GENERAL LOCATION MAP**



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 36 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)**  
(Page 25 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

**FIGURE B: MAP(S)**

Label the figures as Figure B-1, Figure B-2, etc.

Insert maps in the following order:

- Facility specific site map(s),
- Receiving waters maps, and
- Threatened Endangered Species Map.

EXAMPLE

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 37 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 26 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

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

Insert the appropriate attachment. Note: There may be several "Change NOIs" submitted to EPA within a permit term. Contact the MSGP Program Lead to ensure all are included in this attachment.

EXAMPLE

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 38 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 27 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

**ATTACHMENT 2: SWPPP AMENDMENTS**

Insert text documenting all changes or updates made to the SWPPP. Text may be in table format as shown below.

Date	Plan Section	Reason for Amendment	Amendment

EXAMPLE

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 39 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)**  
(Page 28 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

ATTACHMENT 3: CERTIFICATION OF NO UNAUTHORIZED STORMWATER DISCHARGES

Insert the appropriate attachment.

EXAMPLE

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 40 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)**  
(Page 29 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

ATTACHMENT 4: DULY AUTHORIZED SIGNATORY MEMORANDUM

Insert the appropriate attachment.

EXAMPLE



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 41 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)**  
(Page 30 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

**ATTACHMENT 5: DISCHARGE MONITORING REPORTS**

**Insert the discharge monitoring reports.**

**EXAMPLE**

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 42 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)**  
(Page 31 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

**ATTACHMENT 6: ANNUAL REPORTS**

Insert the annual reports. The MSGP Program Lead provides these.

EXAMPLE

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 43 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)**  
(Page 32 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

**ATTACHMENT 7: ROUTINE FACILITY INSPECTIONS**

Insert completed Routine Facility Inspection forms.

EXAMPLE

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 44 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)**  
(Page 33 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

**ATTACHMENT 8: QUARTERLY VISUAL ASSESSMENTS**

Insert completed Quarterly Visual Assessment forms. EPC-CP provides these by memorandum as they are produced.

**EXAMPLE**

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 45 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)**  
(Page 34 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

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

Contact the EPC-CP MSGP Program Lead for an excel spreadsheet of all corrective actions and a certification statement for signature.

**EXAMPLE**



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 47 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)**  
(Page 36 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

**ATTACHMENT 11: TRAINING DOCUMENTATION**

Insert the appropriate documentation.

EXAMPLE



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 48 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 37 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

ATTACHMENT 12:      MSGP (OR ACTIVE URL)

Either insert a copy of the most current Permit, or insert the URL address (see example below):

A copy of the 2015 MSGP is kept on file with the SWPPP in hard copy.

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

EXAMPLE

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 49 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)**  
(Page 38 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

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

Insert the most current revision of the management plan for LANL.

EXAMPLE

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 50 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 39 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

**ATTACHMENT 14: MSGP IPAC TRUST RESOURCES REPORT**

Contact the EPC-CP MSGP Program Lead for this information formatted for insertion.

**NOTE:** The Permit requires this information. However, LANL EPC-ES has completed consultation with U.S. Fish and Wildlife Service. Letters of Consultation are contained in the NOI (see Attachment 1). Refer to Attachment 13 for the species habitat management plan.

EXAMPLE

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 51 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)**  
(Page 40 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

ATTACHMENT 15: EPC-CP-PIP-2101, *NPDES MULTI-SECTOR GENERAL PERMIT*

Insert the appropriate plan into this SWPPP; Ensure the most current revision of this plan is inserted.

EXAMPLE

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 52 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 41 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

**ATTACHMENT 16: EPC-CP-QP-023, MSGP ROUTINE FACILITY INSPECTIONS**

Insert the appropriate procedure or parts of the procedure that pertain to this SWPPP. Ensure the most current revision of this procedure is inserted.

EXAMPLE

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 53 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 42 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

ATTACHMENT 17: EPC-CP-QP-022, *MSGP CORRECTIVE ACTIONS*

Insert the appropriate procedure or parts of the procedure that pertain to this SWPPP. Ensure the most current revision of this procedure is inserted.

EXAMPLE

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 54 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 43 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

ATTACHMENT 18: EPC-CP-QP-064, MSGP STORMWATER VISUAL ASSESSMENTS

Insert the appropriate procedure or parts of the procedure that pertain to this SWPPP. Ensure the most current revision of this procedure is inserted.

EXAMPLE



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 55 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 44 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

**ATTACHMENT 19: EPC-CP-QP-047, INSPECTING STORMWATER RUNOFF SAMPLERS AND RETRIEVING SAMPLES FOR THE MSGP**

Insert the appropriate procedure or parts of the procedure that pertain to this SWPPP. Ensure the most current revision of this procedure is inserted.

EXAMPLE

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 56 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 45 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

**ATTACHMENT 20: EPC-CP-QP-2106, PROCESSING MSGP STORMWATER SAMPLES**

Insert the appropriate procedure or parts of the procedure that pertain to this SWPPP. Ensure the most current revision of this procedure is inserted.

EXAMPLE

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 57 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 46 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

ATTACHMENT 21: EPC-DO-QP-101, ENVIRONMENTAL REPORTING REQUIREMENTS FOR RELEASES OR EVENTS

Insert the appropriate procedure or parts of the procedure that pertain to this SWPPP. Ensure the most current revision of this procedure is inserted.

EXAMPLE

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 58 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)**  
(Page 47 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

**ATTACHMENT 22: EPC-CP-QP-007, *SPILL INVESTIGATIONS***

Insert the appropriate procedure or parts of the procedure that pertain to this SWPPP. Ensure the most current revision of this procedure is inserted.

EXAMPLE

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 59 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 48 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

ATTACHMENT 23: EPC-CP-QP-2110, *MSGP STORMWATER POLLUTION PREVENTION PLAN PREPARATION AND MAINTENANCE*

Insert the appropriate procedure or parts of the procedure that pertain to this SWPPP. Ensure the most current revision of this procedure is inserted.

EXAMPLE

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 60 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, MSGP SWPPP Template Example (cont.)**  
(Page 49 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

**ATTACHMENT 24: LOCAL PROCEDURE**

Insert the appropriate procedure or parts of the procedure that pertain to this SWPPP. If this section is used, ensure the most current revision of the attached procedure is inserted. Delete section if not needed.

**EXAMPLE**

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 61 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 1: EPC-CP-QP-2110 R0 Form 1, *MSGP SWPPP Template Example* (cont.)**  
(Page 50 of 50)

Insert Facility Name  
 MSGP Stormwater Pollution Prevention Plan  
 Document Reference Number  
 Revision X, Date

**ATTACHMENT 25: LOCAL PROCEDURE**

Insert the appropriate procedure or parts of the procedure that pertain to this SWPPP. If this section is used, ensure the most current revision of the attached procedure is inserted. Delete section if not needed.

EXAMPLE



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 62 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 2: MSGP SWPPP Review Guidance Checklist Example**  
(Page 1 of 11)

MSGP SWPPP Review Guidance Checklist

SWPPP Title			
REQUIREMENT		YES/NO	NOTES
<b>Stormwater Pollution Prevention Team</b>			
Is the SWPPP being developed or updated by a qualified person?			
Does the SWPPP list Stormwater Pollution Prevention Team members (by name or title) and each individual's responsibilities?			
Is a copy of the SWPPP immediately available at the site and on-line?			
<b>Contents of the SWPPP</b>			
If the SWPPP refers to procedures or other documents, are copies of the relevant portions of these procedures or documents present in the SWPPP?			
<b>Site Description</b>			
<b>Does the SWPPP include the following information?</b>			
<ul style="list-style-type: none"> <li>Identify a description of the nature of the industrial activities at the site</li> </ul>			
Provide a general location map (e.g., U.S. Geological Survey (USGS) quadrangle map) with enough detail to identify the location of the site and all receiving waters for industrial stormwater discharges.			
<b>Site map showing the following:</b>			
<ul style="list-style-type: none"> <li>Boundaries of the property and size of the property in acres</li> </ul>			
<ul style="list-style-type: none"> <li>Location and extent of significant structures and impervious surfaces</li> </ul>			
<ul style="list-style-type: none"> <li>Direction(s) of stormwater flow (using arrows)</li> </ul>			
<ul style="list-style-type: none"> <li>Locations of all stormwater control measures</li> </ul>			
<ul style="list-style-type: none"> <li>Locations of all receiving waters, including wetlands, in the immediate vicinity of the site. Indicate which water bodies are listed as impaired and which are identified as Tier 2, Tier 2.5, or Tier 3 waters (for LANL, none)</li> </ul>			
<ul style="list-style-type: none"> <li>Locations of all stormwater conveyances including ditches, pipes, and swales</li> </ul>			
<ul style="list-style-type: none"> <li>Locations of potential pollutant sources associated with each industrial activity (see Part 5.2.3.2) that could be exposed to rainfall or snowmelt and could be discharged from the site.</li> </ul>			
<ul style="list-style-type: none"> <li>Locations where significant spills or leaks have occurred (see Part 5.2.3.3)</li> </ul>			
<ul style="list-style-type: none"> <li>Location(s) of all stormwater monitoring points</li> </ul>			
<ul style="list-style-type: none"> <li>Location of each stormwater inlet and outfall, with a unique identification code for each outfall (i.e., 001, 002, 003, etc.), indicating if you are treating one or more outfalls as "substantially identical" (see Parts 3.2.3, 5.2.5.3, and 6.1.1)</li> </ul>			
<ul style="list-style-type: none"> <li>If applicable, location of the MS4 and where your stormwater discharges to it.</li> </ul>			
<b>NOTE:</b> Although LANL does not currently have an MS4, EPA has published a draft permit.			
<ul style="list-style-type: none"> <li>Areas of designated critical habitat for endangered or threatened species</li> </ul>			
<ul style="list-style-type: none"> <li>Locations of the following activities where such activities are exposed to precipitation:</li> </ul>			

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 63 of 72
	Revision: 0	Effective Date: 01/07/2020

## Attachment 2: MSGP SWPPP Review Guidance Checklist Example (cont.)

(Page 2 of 11)

### MSGP SWPPP Review Guidance Checklist

REQUIREMENT	YES/NO	NOTES
- Fueling station(s)		
- Vehicle and equipment maintenance and/or cleaning area		
- Loading/unloading areas		
- Locations used for the treatment, storage, or disposal of wastes		
- Liquid storage tanks		
- Processing and storage areas		
- Immediate access roads used by carriers of raw materials, manufactured products, waste material, or by-products used or created by the site		
- Transfer areas for substances in bulk		
- Machinery		
- Locations and sources of run-on to the site from adjacent property that contains significant quantities of pollutants		
<b>Potential Pollutant Sources</b>		
Are areas described in the SWPPP where industrial material or activities are exposed to stormwater or from which allowable non-stormwater discharges originate?		
<b>NOTE 1:</b> Industrial material or activities include material handling equipment or activities; industrial machinery; raw material; industrial production and processes; and intermediate products; by-products; final products, and waste products. Material handling activities include the storage, loading and unloading, transportation, disposal or conveyance of any raw material, intermediate product, final product or waste product.		
Are all pollutants or pollutant constituents (e.g., zinc, sulfuric acid, cleaning solvents, motor oil, diesel, gasoline, brake fluid, etc.) associated with each activity identified?		
<b>NOTE 2:</b> The list must include all pollutants/materials that have been handled, treated, stored, or disposed and that have been exposed to stormwater in the three years prior to the date the SWPPP is prepared or amended.		
Are areas where potential spills and leaks could occur that could contribute pollutants to stormwater discharges and the corresponding outfall(s) that would be affected by such spills and leaks identified in the SWPPP?		
Are all significant spills and leaks of oil or toxic or hazardous substances identified that actually occurred at exposed areas, or that drained to a stormwater conveyance, in the three years prior to the date the SWPPP was prepared or amended?		
Has an evaluation for the presence of unauthorized non-stormwater discharges (see Part 1.1.3) been done and does it include the following information?		
• Date of the evaluation		
• A description of the evaluation criteria used		
• A list of the outfall or onsite drainages points that were directly observed during the evaluation		



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 64 of 72
	Revision: 0	Effective Date: 01/07/2020

## Attachment 2: MSGP SWPPP Review Guidance Checklist Example (cont.)

(Page 3 of 11)

### MSGP SWPPP Review Guidance Checklist

REQUIREMENT	YES/NO	NOTES
<ul style="list-style-type: none"> <li>The action(s) taken, such as a list of control measures used to eliminate unauthorized discharge(s), or documentation that a floor drain was sealed, re-routed to sanitary, or an NPDES permit application was submitted for an unauthorized cooling water discharge.</li> </ul>		
Is there documentation of the location of any salt storage piles used for deicing or other commercial or industrial purposes?		
Is all stormwater discharge sampling data collected at the site during the precious permit term summarized in a narrative description? This may include data tables and figures.		
<b>Control Measures to Meet Effluent Limits</b>		
<b>Does the SWPPP indicate whether the following control measure selection and design criteria were considered?</b>		
<ul style="list-style-type: none"> <li>Preventing stormwater from coming into contact with polluting materials is generally more effective, and less costly, than trying to remove pollutants from stormwater</li> </ul>		
<ul style="list-style-type: none"> <li>Using control measures in combination which may be more effective than using control measures in isolation for minimizing pollutants in stormwater discharge</li> </ul>		
<ul style="list-style-type: none"> <li>Assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to designing effective control measures that will achieve the limits in this permit</li> </ul>		
<ul style="list-style-type: none"> <li>Minimizing impervious areas at the facility and infiltrating runoff onsite (including bio-retention cells, green roofs, and impervious pavement, among other approaches) can reduce runoff and improve ground water recharge and stream base flows in local streams, although care must be taken to avoid ground water contamination</li> </ul>		
<ul style="list-style-type: none"> <li>Attenuating flow using open vegetated swales and natural depressions can reduce in-stream impacts of erosive flows</li> </ul>		
<ul style="list-style-type: none"> <li>Conserving and/or restoring riparian buffers will help protect streams from stormwater runoff and improve water quality</li> </ul>		
<ul style="list-style-type: none"> <li>Using treatment interceptors (e.g., swirl separators and sand filters) may be appropriate in some instances to minimize the discharge of pollutants.</li> </ul>		
Does the SWPPP indicate how the control measure addresses the potential pollutant sources?		
<b>Are the selection and design considerations for control measures to meet the following non-numeric technology-based effluent limits (see Part 2.1.2) identified in the SWPPP?</b>		
<ul style="list-style-type: none"> <li><b>Minimize Exposure:</b> All manufacturing, processing and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) must have controls that minimize exposure to pollutant discharges by either locating these industrial materials and activities inside or protecting them with storm resistant coverings.</li> </ul>		
<ul style="list-style-type: none"> <li>Use grading, berming or curbing to prevent runoff of contaminated flows and divert run-on away from these areas;</li> </ul>		

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 65 of 72
	Revision: 0	Effective Date: 01/07/2020

## Attachment 2: MSGP SWPPP Review Guidance Checklist Example (cont.)

(Page 4 of 11)

### MSGP SWPPP Review Guidance Checklist

REQUIREMENT	YES/NO	NOTES
- Locate materials, equipment, and activities so that potential leaks and spills are contained or able to be contained or diverted before discharge;		
- Clean up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants;		
- Store leaky vehicles and equipment indoors or, if stored outdoors, use drip pans and absorbents;		
- Use spill overflow protection equipment;		
- Perform all vehicle and/or equipment cleaning operations indoors, under cover, or in bermed areas that prevent runoff and run-on and also that capture any overspray; and		
- Drain fluids from equipment and vehicles that will be decommissioned, and, for any equipment and vehicles that will remain unused for extended periods of time, inspect at least monthly for leaks.		
• <b>Good housekeeping</b> (all areas where potential pollutants are exposed to storm water must be kept clean).		
- Sweep or vacuum at regular intervals or wash down the area and collect and/or treat and properly dispose of the wash down water.		
- Store materials in appropriate containers.		
- Keep all dumpster lids closed when not in use. For dumpsters and roll off boxes that do not have lids and could leak, ensure that discharges have a control (e.g., secondary containment). Part 1.1.3 of the permit does not authorize dry weather discharges from dumpsters or roll off boxes.*		
* You may include extra information, or you may just "cut-and-paste" the effluent limits verbatim into the SWPPP w/out providing additional documentation.		
- Minimize the potential for waste, garbage, and floatable debris to be discharged by keeping exposed areas free of such materials.		
• <b>Maintenance</b> (All industrial equipment, systems and control measures must be maintained in effective operating condition in order to minimize pollutant discharges).		
Perform inspections and preventive maintenance of stormwater drainage, source controls, treatment systems, and plant equipment and systems that could fail and result in contamination of stormwater.		
- Diligently maintain non-structural control measures (e.g., keep spill response supplies available, and personnel appropriately trained).		
- Inspect and maintain baghouses at least quarterly to prevent the escape of dust from the system and immediately removing any accumulated dust at the base of the exterior baghouse.*		
- Cleaning catch basins when the depth of debris reached two thirds (2/3) of the sump depth and keeping the debris surface at least six inches below the lowest outlet pipe.*		
Does the SWPPP contain language indicating immediate action must be taken to minimize pollutant discharges if control measures need routine maintenance?		
Is there language in the SWPPP indicating in instances where control measures need repair or replacement that the facility (or associated representatives thereof) must immediately take all		



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 66 of 72
	Revision: 0	Effective Date: 01/07/2020

## Attachment 2: MSGP SWPPP Review Guidance Checklist Example (cont.)

(Page 5 of 11)

### MSGP SWPPP Review Guidance Checklist

REQUIREMENT	YES/NO	NOTES
reasonable steps (see Part 4.3.1 for definition) to prevent or minimize the discharge of pollutants until the final repair or replacement is implemented, including cleaning up any contaminated surfaces so that the material will not be discharged during subsequent storm events. Final repairs/replacement of stormwater controls should be completed as soon as feasible but must be no later than the timeframes established in Part 4.3 for corrective actions, i.e., within 14 days or, if that is infeasible, within 45 days.		
Is there language in the SWPPP indicating corrective action must be taken (in accordance with Part 4.0) if a control measure was never installed, was installed incorrectly or not in accordance with Parts 2 and/or 8, or isn't being properly operated or maintained?		
<b>• Spill Prevention and Response</b> - The potential for leaks, spills, and other release must be minimized by the development of plans for effective response to such spills if or when they occur in order to minimize pollutant discharges. <ul style="list-style-type: none"> <li>- Plainly label containers (e.g., "Used Oil," "Spent Solvents," "Fertilizers and Pesticides") that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur.*</li> <li>- Implement procedures for material storage and handling including use of secondary containment and barriers between material storage and traffic areas.</li> <li>- Develop training on the procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases as soon as possible.</li> <li>- Keep spill kits on-site, located near areas where spills may occur or where a rapid response can be made</li> <li>- Notify appropriate facility personnel when a leak, spill, or other release occurs. Where a leak, spill or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR part 302, occurs during a 24-hour period, you must notify the National Response Center (NRC) at (800) 424-8802 in accordance with the above referenced requirements as soon as you have knowledge of the discharge.</li> <li>- In the event of a spill, does the SWPPP indicate where the contact information is so that it is readily accessible and available?</li> </ul>		
<b>• Erosion and Sediment Controls</b> <ul style="list-style-type: none"> <li>- Does the SWPPP identify how exposed soils will be stabilized to minimize pollutant discharges?</li> <li>- Does the SWPPP identify flow velocity dissipation devices placed at discharge locations to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points?</li> <li>- Does the SWPPP identify structural and non-structural control measure to minimize the discharge of sediment?</li> </ul>		

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 67 of 72
	Revision: 0	Effective Date: 01/07/2020

## Attachment 2: MSGP SWPPP Review Guidance Checklist Example (cont.)

(Page 6 of 11)

### MSGP SWPPP Review Guidance Checklist

REQUIREMENT	YES/NO	NOTES
- If polymers and/or other chemical treatments are used for dust control or stabilization, does the SWPPP must identify the polymers and/or chemicals used and the purpose?		
• <b>Management of Runoff</b> - Does the SWPPP identify how stormwater runoff is diverted, infiltrated, reused, contained, or otherwise reduced to minimize pollutants in the discharge?		
• <b>Salt Storage Piles or Piles Containing Salt</b> - Does the SWPPP identify how salt piles are enclosed or covered?		
- Are controls in place to minimize exposure to stormwater resulting from adding to or removing materials from the salt pile?		
• <b>Non-Stormwater Discharges</b> - Does the SWPPP indicate that personnel will evaluate the site for non-stormwater discharges not explicitly authorized in Part 1.1.3 or covered by another NPDES permit and eliminate the discharge?		
• <b>Dust Generation and Vehicle Tracking of Industrial Materials</b> - Does the SWPPP indicate dust generation and off-site tracking of raw, final, or waste materials must be minimized in order to minimize pollutant discharges?		
<b>Control Measures to Meet Numeric Effluent Limitations Guidelines-based Limits (see Part 2.1.3 and Part 8)</b>		
Are effluent limitations identified for the Sector D facility (Asphalt Paving) (see Part 8.D.4)?		
Are effluent limitations identified for the Sector A facility (Timber Products) (see Part 8.A.7)?		
<b>Control Measures to Meet Water Quality Based Effluent Limits (see Part 7.2 and Part 9.6.2)</b>		
Are the benchmark values (i.e., the lowest New Mexico Water Quality Standard) listed in MSGP Section 9.6.2.1 identified in the SWPPP?		
<b>Schedules and Procedures - Control Measures</b>		
Does the SWPPP contain a schedule or convention used for determining when pickup or disposal of waste materials occurs?		
Are preventative maintenance procedures (including regular inspections, testing, maintenance and repair) for all control measures included in the SWPPP to avoid situations that may result in leaks, spills, and other releases?		
Are backup practices in place should a runoff event occur while a control measure is off line?		
Is there a schedule or frequency for maintaining all control measures?		
Are procedures included in the SWPPP for preventing and responding to spills and leaks, including notification procedures?		
Are control measures for material handling and storage identified?		
Are clean-up equipment, procedures and spill logs (i.e., reportable and non-reportable spill reports and the MSGP Corrective Action Reporting database) identified?		
<b>Schedules and Procedures - Employee Training</b>		
Are the following employees identified as requiring training?		



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 68 of 72
	Revision: 0	Effective Date: 01/07/2020

## Attachment 2: MSGP SWPPP Review Guidance Checklist Example (cont.)

(Page 7 of 11)

### MSGP SWPPP Review Guidance Checklist

REQUIREMENT	YES/NO	NOTES
<ul style="list-style-type: none"> <li>• Personnel who are responsible for the design, installation, maintenance and/or repair of controls (including pollution prevention measures)</li> <li>• Personnel responsible for the storage and handling of chemicals and materials that could become contaminants in stormwater discharges</li> <li>• Personnel who are responsible for conducting and documenting monitoring and inspections</li> <li>• Personnel who are responsible for taking and documenting corrective actions.</li> </ul>		
<b>Are the following identified as elements of required training?</b>		
• An overview of what is in the SWPPP		
• Spill response procedures, good housekeeping, maintenance requirements, and material management practices		
• The location of all controls on the site required by this permit and how they are to be maintained		
• The proper procedures to follow with respect to the permit's pollution prevention requirements		
• When and how to conduct inspections, record applicable findings, and take corrective actions		
<b>Are the following elements of the training plan documented in the SWPPP?</b>		
• Content of the training		
• Frequency/schedule of training		
Are records of completed training kept in the SWPPP?		
<b>Schedules and Procedures- Inspections and Assessments</b>		
Is the procedure identified for conducting routine facility inspections?		
Is the procedure identified for conducting visual assessments?		
For each type of inspection performed (i.e., routine inspection and visual assessments) does the SWPPP identify the person (s) or positions of person(s) responsible for the inspection?		
Does the SWPPP contain an alternative schedule for conducting visual assessments in climates with irregular stormwater runoff discharges (see Part 3.2.3)?		
Are specific items to be covered by the inspection, including schedules for specific outfalls identified in the SWPPP?		
Is the facility claiming an exception as an inactive and unstaffed site? If yes, the facility must include information in the SWPPP that supports this claim as required by Parts 3.1.1, 3.2.3, 6.2.1.3 and 6.2.4.2. That is, the SWPPP must contain a signed certification indicating that there are no industrial materials or activities exposed to precipitation at the site and the NOI must be modified and re-certified.		
<b>Schedules and Procedures- Monitoring</b>		
Does the SWPPP contain documentation of procedures used to conduct benchmark, effluent limitations guidelines and impaired waters monitoring?		
Are locations where samples are collected, including any determination that two or more outfalls are substantially identical, in the SWPPP?		
Are parameters for sampling and the frequency of sampling for each parameter listed?		



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 69 of 72
	Revision: 0	Effective Date: 01/07/2020

## Attachment 2: MSGP SWPPP Review Guidance Checklist Example (cont.)

(Page 8 of 11)

### MSGP SWPPP Review Guidance Checklist

REQUIREMENT	YES/NO	NOTES
Does the SWPPP contain schedules for monitoring at the facility, including a schedule for alternate monitoring periods for climates with irregular stormwater runoff (see Part 6.1.6)?		
Are numeric control values (benchmark, effluent limitations guidelines, water quality standards) applicable to discharges from each outfall identified?		
Does the SWPPP list procedures for gathering storm event data (see Part 6.1)?		
<b>Schedules and Procedures - Substantially Identical Outfalls (SIOs)</b>		
<b>Does the SWPPP contain the following relative to SIOs?</b>		
• Location of each of the substantially identical outfalls		
• Description of the general industrial activities conducted in the drainage area of each outfall		
• Description of the control measures implemented in the drainage area of each outfall		
• Description of the exposed material located in the drainage area of each outfall that are likely to be significant contributors of pollutants to stormwater discharges		
• An estimate of the runoff coefficient of the drainage areas (low = under 40%, medium = 40% to 65%, high = above 65%)		
• Justification as to why the outfalls are expected to discharge substantially identical effluents		
Do Substantially Identical Outfalls identified on the SWPPP map match those identified in MDMRs?		
Is there language indicating quarterly visual assessments of substantially identical outfalls will be performed on a rotating basis throughout the permit term?		
Is there language indicating quarterly visual assessment of the discharge at one SIO will also apply to the other SIOs?		
Corrective Action Documentation - If an event triggering corrective action is associated with an SIO, did the review of the need for action encompass all related substantially identical outfalls?		
<b>Documentation</b>		
<b>Does the SWPPP contain the following up-to-date and complete inspection, monitoring, and certification records?</b>		
• Copy of NOI submitted to EPA along with any correspondence exchanged between the facility and EPA specific to coverage under this permit.		
• Copy of the acknowledgement you receive from the EPA assigning your NPDES ID.		
• Copy of the MSGP Permit (an electronic copy easily available to SWPPP personnel is also acceptable).		
• Documentation of maintenance and repairs of control measures, including the date(s) of regular maintenance, date(s) of discovery of areas in need of repair/replacement, and for repairs, date(s) that the control measure(s) returned to full function, and the justification for any extended maintenance/repair schedules (see Part 2.1.2.3).		
• All inspection reports, including the Routine Facility Inspection Reports (see Part 3.1.2) and Quarterly Visual Assessment Reports (see Part 3.2.2).		

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 70 of 72
	Revision: 0	Effective Date: 01/07/2020

## Attachment 2: MSGP SWPPP Review Guidance Checklist Example (cont.)

(Page 9 of 11)

### MSGP SWPPP Review Guidance Checklist

REQUIREMENT	YES/NO	NOTES
<ul style="list-style-type: none"> <li>• Description of any deviations from the schedule for visual assessments and/or monitoring, and the reason for the deviations (e.g., adverse weather or it was impracticable to collect samples within the first 30 minutes of a measurable storm event) (see Parts 3.2.3 and 6.1.5)</li> </ul>		
<ul style="list-style-type: none"> <li>• Corrective action documentation (see Part 4.4)</li> </ul>		
<ul style="list-style-type: none"> <li>• Documentation of any benchmark exceedances and the type of response to the exceedance employed including the following:               <ul style="list-style-type: none"> <li>- The corrective action taken;</li> <li>- A finding that the exceedance was due to natural background pollutant levels;</li> <li>- A determination from EPA that benchmark monitoring can be discontinued because the exceedance was due to run-on; OR</li> <li>- A finding that no further pollutant reductions were technologically available and economically practicable and achievable in light of best industry practice consistent with Part 6.2.1.2</li> </ul> </li> </ul>		
<ul style="list-style-type: none"> <li>• Documentation to support any determination that pollutants of concern are not expected to be present above natural background levels if you discharge directly to impaired waters and that such pollutants were not detected in your discharge or were solely attributable to natural background sources. (see Part 6.2.4.1)</li> </ul>		
<ul style="list-style-type: none"> <li>• Documentation supporting that stormwater discharges, allowable non-stormwater discharges, and stormwater discharge-related activities are not likely to adversely affect any species that are federally listed as endangered or threatened ("listed") and are not likely to adversely affect habitat that is designated as "critical habitat" under the Endangered Species Act (see Part 1.1.4.5).</li> </ul>		
<ul style="list-style-type: none"> <li>• Documentation supporting the determination that stormwater discharges, allowable non-stormwater discharges, and stormwater discharge-related activities meet one of the eligibility criteria for historic property preservation (Criterion A, B, C or D) (see Part 1.1.4.6).</li> </ul>		
<ul style="list-style-type: none"> <li>• All Discharge Monitoring Reports and Annual Reports</li> </ul>		
<ul style="list-style-type: none"> <li>• Support for claim that facility has changed its status from active to inactive and is understaffed with respect to the requirements to conduct routine facility inspections, quarterly visual assessments, benchmark monitoring, and/or impaired waters monitoring.</li> </ul>		
Is the SWPPP signed and dated by a duly authorized representative (per Part 8.11)?		
Is the Annual Report signed by a duly authorized representative (per Part 8.11)?		
<b>SWPPP Modifications</b>		
Where a corrective action triggers a change in any of the control measures or procedures, has the SWPPP been updated within 14 calendar days of completing the corrective action (see Part 4.4)?		
Are SWPPP modifications signed and dated by a duly authorized representative?		
Has the SWPPP been reviewed and does documentation exist as to the modifications made or why none were needed under the following circumstances?		



<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 71 of 72
	Revision: 0	Effective Date: 01/07/2020

## Attachment 2: MSGP SWPPP Review Guidance Checklist Example (cont.)

(Page 10 of 11)

### MSGP SWPPP Review Guidance Checklist

REQUIREMENT	YES/NO	NOTES
<ul style="list-style-type: none"> <li>• An unauthorized release or discharge (e.g., spill leak, or discharge of non-stormwater not authorized by this or another NPDES permit to a water of the U.S.) occurs at your facility.</li> <li>• A discharge violates a numeric effluent limit listed in Table 2-1 and in the sector specific requirements.</li> <li>• The control measures are not stringent enough for the discharge to meet applicable water quality standards or the non-numeric effluent limits in this permit.</li> <li>• 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.</li> <li>• Whenever a visual assessment shows evidence of stormwater pollution (e.g., color, odor, floating solids, settled solids, suspended solids, foam).</li> <li>• 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.</li> <li>• The average of four quarterly sampling results exceeds an applicable benchmark (see Part 6.2.1.2). If less than four benchmark samples have been taken, but the results are such that an exceedance of the four quarter average is mathematically certain (i.e., the sum of quarterly sample results to date is more than four times the benchmark level) this is considered a benchmark exceedance.</li> </ul>		
<b>Public Accessibility of SWPPP</b>		
Is your SWPPP uploaded to the URL provided in the NOI?		
Are subsequent SWPPP modifications (updates), records and all other reporting elements required for the previous year updated no later than 45 days after conducting the final routine facility inspection for the year?		
<b>If you did not upload your SWPPPs to a URL, was the following information provided in the NOI and documented in the SWPPP?</b>		
<ul style="list-style-type: none"> <li>• Onsite industrial activities exposed to stormwater, including potential spill and leak areas (see Parts 5.2.3.1, 5.2.3.3 and 5.2.3.5);</li> <li>• Pollutants or pollutant constituents associated with each industrial activity exposed to stormwater that could be discharged in stormwater and/or any authorized non-stormwater discharges listed in Part 1.1.3 (see Part 5.2.3.2)</li> <li>• Stormwater control measures employed to comply with the non-numeric technology-based effluent limits required in Part 2.1.2 and Part 8, and any other measures taken to comply with the requirements in Part 2.2, Water Quality Based Effluent Limitations. If polymers and/or other chemical treatments are used as controls, these must be identified and the purpose explained.</li> <li>• The schedule for good housekeeping, maintenance, and schedule for all inspections required in Part 3.</li> </ul>		

<b>MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance</b>	No: EPC-CP-QP-2110	Page 72 of 72
	Revision: 0	Effective Date: 01/07/2020

**Attachment 2: MSGP SWPPP Review Guidance Checklist Example (cont.)**

(Page 11 of 11)

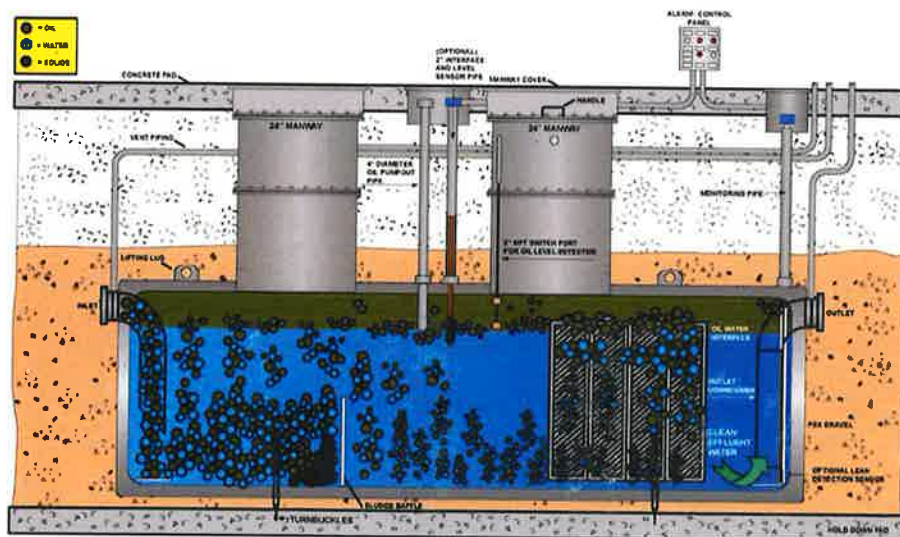
**MSGP SWPPP Review Guidance Checklist**

<b>REQUIREMENT</b>	<b>YES/NO</b>	<b>NOTES</b>
Are modifications to the SWPPP information required in the four bullets above submitted on a "Change NOI" form no later than 45 days after conducting the final routine facility inspection for the year?		
<b>Corrective Actions</b>		
Are corrective actions documented within 24 hours of becoming aware of such condition?		
Is the condition triggering the need for the corrective action identified?		
Is the date the corrective action was identified captured?		
Was immediate action taken to minimize or prevent the discharge of pollutants?		
In the case of leaks and spills, were response actions, date/time of clean up, notification, etc. documented?		

**Attachment 24: TA60-01 HEAVY EQUIPMENT SHOP OIL/WATER SEPARATOR (TA60-313) OPERATIONS  
AND MAINTENANCE MANUAL**



**TA60-01 Heavy Equipment Shop  
Oil/Water Separator (TA60-313)  
Operations and Maintenance Manual**



ECOLOGIX HQB BELOW GROUND OIL/WATER SEPARATOR

**333IFCS FOD  
October 30, 2009**

	<b>TA60-01 Heavy Equipment Shop Oil Water Separator Operations &amp; Maintenance Manual</b>	Rev: 0 Oct 30, 2009
---	---	------------------------

## Approvals

Name	Organization	Date	Signature
<b>Project Engineer:</b>			
<b>Engineering Manager:</b>			
<b>Operations Manager:</b>			

## Classification

<u><b>Review &amp; Classification</b></u>			
(Reviewed By)	(Z#)	(Review Date)	(Classification)

## Revisions



	<b><i>TA60-01 Heavy Equipment Shop Oil Water Separator Operations &amp; Maintenance Manual</i></b>	Rev: 0 Oct 30, 2009
---	--	------------------------

## **Table of Contents**

**SECTION 1 –Operations & Maintenance Information**

**SECTION 2 – Manufacturers Procedures, Specifications, & Drawings**

**SECTION 3 – Project Specifications**

**SECTION 4 – As Constructed Drawings**



**SECTION 1**

**LANL GENERAL INFORMATION**

**AND**

**OPERATIONS AND MAINTENANCE  
PROCEDURES**

	<p><i>TA60-01 Heavy Equipment Shop Oil Water Separator Operations &amp; Maintenance Manual</i></p>	<p>Rev: 0 Oct 30, 2009</p>
---	--	--------------------------------

## SECTION 1.0 OIL/WATER SEPARATOR SYSTEM – GENERAL

### 1.0 PURPOSE:

The Oil/Water Separator (OWS) is designed to collect and treat wash water and storm water contaminated with heavy oil (asphalt & grease), light oil (motor oil), or other contaminants such as VOCs or sand and gravel. The OWS separates these contaminants from the influent water by a gravity flotation/separation system. The OWS discharges clean effluent to a manhole (TA60-48) on the LANL Sanitary Wastewater collection system.

### 2.0 SUPPORTED/SUPPORTING SYSTEMS

- 2.1. Supported Systems – The Oil/Water Separator (OWS) collects wash water and run-on rain water from the heavy equipment wash pad located at TA60-01, The Heavy Equipment Repair shop. Other than for the installed instrumentation systems, the OWS is a totally passive device which works solely through gravity flow of the influent liquid. No pumps or valves are required to receive, treat, or discharge the influent or effluent.
- 2.2. Supporting Systems -- 110v AC electrical power is supplied to the OWS instrumentation panels located in the Heavy Equipment Shop. **Only 24v AC** power is routed to the instrumentation probes in the OWS itself. The OWS discharges clean waste water to the LANL Sanitary Wastewater Collection System. This waste water is treated at the LANL Sanitary Wastewater Treatment Facility.

### 3.0 MAJOR SYSTEMS AND COMPONENTS

#### 3.1. Envirologix HQB Oil Water Separator

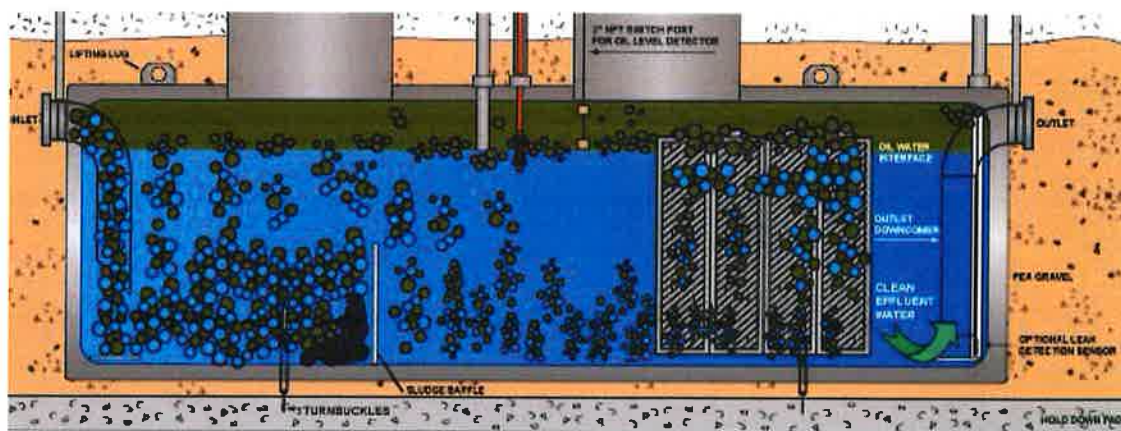


Figure 1. Envirologix HQB2064 Oil/Water Separator

The Envirologix Oil/Water Separator (OWS) is a self contained underground tank type system which is designed to separate both heavy oils (asphalt & grease) and light oils (motor oil) from wash water and stormwater runoff. The OWS will also separate sand and gravel from the influent. The total volume of the tank is 2000 gallons (7.67 M<sup>3</sup>). Maximum reject oil storage capacity recommended by the Manufacturer is 40% of the total capacity or 800 gallons (3.0 M<sup>3</sup>).

The OWS functions very much like a standard sanitary septic tank system with which many of us are familiar. The easy way to understand operation of the OWS is to think of the entire system as an inverted siphon or "P trap." (See Figure 1) Contaminated water enters the inlet end of the tank through the inlet half of the inverted siphon or "downcomer". Heavy materials in the influent are prevented from flowing further through the tank by the sludge baffle depicted in the drawing.

The influent water and lighter contaminants flow over the baffle and the light contaminants float to the surface of the fluid and coalesce as the contents flow through the tank. Plastic oil coalescing plates are provided to facilitate this process. As new influent enters the tank, clean effluent is forced out of the tank through the effluent downcomer.

It is interesting to note that the OWS tank is always full. The tank is "pre-charged" with clean water upon commissioning or after pumping. The tank fills to the level of the outlet invert (bottom of pipe) and maintains this level throughout the operating "cycle". The only way a higher level of fluid can be experienced in the tank is in the event of a blockage of the effluent pipe.

As waste oil flows into the tank and is collected, the interface surface between the oil and the water moves down, however the top surface of the two fluids never varies. The oil level probe described below is therefore designed to measure the height of the interface between the fluids.

The tank must be pumped on a regular basis to remove accumulated sludge and light oil from the tank. This service is typically provided by a commercial waste oil collection service.

Detailed manufacturers drawings and literature are provided in Section 2. Project specifications are provided in Section 3, and installation drawings are provided in Section 4.

### 3.2. Sitrans/ Automated Logic Level Sensor system

A flow sensor is installed on the outlet of the tank to measure the amount of water being discharged to the Sanitary Wastewater System. The flow sensor transmits an ultrasonic signal that bounces off the surface of water and returns to the transducer located within the sensor. The sensor in turn transmits a 4-20 milliamp signal to the Automatic Logic signal processor. The level of the signal is proportional to the flow in the outlet pipe.

The Automated Logic signal processor is calibrated to read flow in gallons per minute (gpm). The instrumentation package allows real time reading of the flow meter signal, as well as the capability to totalize flow over several different time periods. This information can be accessed from any personal computer with a web browser operating on the LANL Yellow net.



Figure 3—Sitrans  
Ultrasonic  
Level Sensor

### 3.3. Aggressive Systems Level Probe and Alarm System.

The OWS is provided with a level sensor and remote alarm system to detect two different fluid levels in the tank. The level sensor is a brass rod inserted vertically in the tank and is equipped with two plastic floats located at pre-specified locations.

The A1 float(Alarm 1-System Alarm) has a specific gravity of 0.60 and will float on top of the oil layer in the tank. The A2 (Alarm 2-High Oil) float has a specific gravity of 0.93. Since it is heavier than oil but lighter than water, it will float on the surface layer between the oil and the water in the tank.

Float A1, the upper float, is set to activate at a level 5 inches below the top of the tank. If the liquid level reaches this limit, the float will activate Alarm 1 at the remote panel. This level is 6" above the outlet invert of the tank and indicates a "blocked flow" condition in which normal effluent flow from the tank is blocked

Float A2 is set to activate at a level 33 inches below the top of the tank. If the oil reaches this level the float will activate Alarm 2 at the remote panel. This alarm indicates the OWS has reached its recommend maximum storage capacity for oil. Oil quantity in the tank when this alarm activates is approximately 814 gallons or 40% of the total tank capacity.

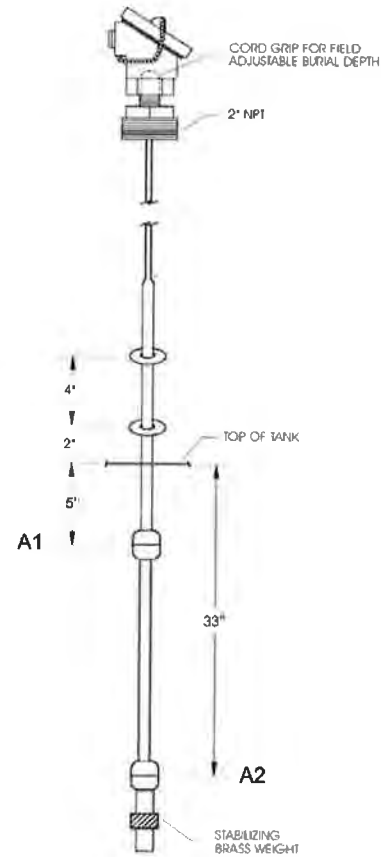


Figure 3—Level Probe

When either float senses an alarm condition the appropriate warning light will be illuminated on the remote panel located in the southeast corner of the heavy equipment shop. Either alarm will also cause an audible alarm (horn) to sound. The audible alarm may be muted by pushing the silence button. Pushing the silence button will not reset the alarm condition or extinguish the light. The warning lights may only be extinguished by correcting the alarm condition. See 4.2 below for appropriate alarm response actions.

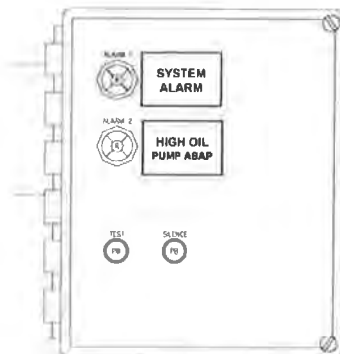


Figure 4—Alarm Panel



5. Using the waste oil vacuum truck suction line, suction all heavy oil and sludge from the behind the sludge baffle at the bottom of the tank.
6. Using a 2" fire hose and the nearby fire hydrant east of TA60-01, refill the OWS with water until the flow is observed in the outlet line at the first cleanout
7. Replace the light oil suction line cover plate
8. Replace the inner lid and cover plate on west access manway

#### 5.4. Removal and Cleaning of the HD Q-PAC Oil Coalescing Plates

1. Obtain approval for confined space entry. Comply with any entry requirements
2. Remove the cover plate and inner lid on the east access manway
3.
  - a To clean the plates in place, connect a conventional 5/8" or 3/4" water hose to the hosebid located at the \_\_\_\_\_ wall of TA60-01. Using a garden hose high pressure nozzle wash the spaces between the plate rack from the top. Suction all debris from the bottom of the tank after cleaning
  - b The plates may also be cleaned outside of the OWS by removing the plates through the east manway using \_\_\_\_\_ hook tool. The plates can be placed on the wash pad and washed with a 5/8" or 3/4" hose with a conventional garden hose high pressure nozzle. Once all sludge is removed from the plates, they can be returned to the OWS. Suction all debris from the bottom of the trench inlet after cleaning
4. Using a 2" fire hose and the nearby fire hydrant east of TA60-01, refill the OWS with water until the flow is observed in the outlet line at the first cleanout
5. Replace the cover plate on the east access manway.

#### 5.5. Maintenance and Calibration of instrumentation.

1. The Aggressive systems alarm panel should be tested once per month by actuating the Test button and observing proper illumination of both alarm lights and actuation of the warning horn.
2. Alarm System floats. The Aggressive Systems level probe should be removed on a biennial basis, and the floats should be actuated manually in order to test continuity of the alarm system wiring.
3. The Sitrans/Automated Logic flow metering system should be calibrated on a biennial basis. This calibration can be conducted by Process and Automation technicians or the instrumentation shop.

##### 5.5.1.1. Calibration procedure:

## 6.0 RESPONSIBILITIES

Maintenance of the OWS will be the responsibility of \_\_\_\_\_ Heavy Equipment shop personnel. It is recommended that the shop manager appoint a designated technician to be responsible for monitoring of the tank and scheduling of maintenance and servicing.

## **7.0 GENERAL PRECAUTIONS, LIMITATIONS AND SAFETY HAZARDS**

- 7.1. Confined space—The OWS is designated as a Permit Only Confined space. Prior permission from ESH Personnel is required to enter either of the tank man ways or the tank itself to service the oil coalescing plates.
- 7.2. Spills when pumping—Appropriate precautions against surface spills are to be taken when pumping waste oil or sludge. These precautions are described in the pumping procedures outline above.
- 7.3. Overflow—Since inflow into the tank is gravity flow only, there is no way for the tank itself to overflow from the manholes or other connections. The system can only “overflow” in the event of a blocked outlet line. If the installed high level alarm fails to detect a blocked flow condition, the first indication of an overflow would be standing water in the trench drain. See 5.2 above for correction of this condition.

## **8.0 REFERENCES**

- 8.1. xx
- 8.2. yy
- 8.3. zz

## **SECTION 2**

# **MANUFACTURERS PROCEDURES, SPECIFICATIONS AND DRAWINGS**



## ECOLOGIX GENERAL DESCRIPTION



**Air & Water Treatment Solutions**  
(888) 326-2020 / (678) 514-2100



**Distributors and Reps Wanted (click here)**

Home | Online Store | Forms | Contact Us | About Us | Site Map | Search Site

66

### Applications

- Automotive
- Biodiesel
- Car Wash Industry
- Dairy Industry
- Food Processing Industry
- Iron Removal
- Latex Removal
- Metals Treatment
- Mining Industry
- Odor Control
- Petrochemical Industry
- Poultry Industry

### Products

- Activated Carbon
- Air Treatment Systems
- Bag Filtration
- Biological Treatment
- Chemicals (Specialty)
- Clarifiers
- Dissolved Air Flotation
- Dewatering
- Dust Collection
- Evaporators
- Filter Screens
- Membrane Filtration
- Microbial Bacteria
- Oil/Water Separators
  - Above Ground Separators
  - Below Ground Separators
  - Bilge Oil Removal System
  - Liquid Phase Vessels
- Ozone
- Polymer Blenders
- Pressure Filtration
- Separators/Strainers
- Tanks
- V/Vet Scrubbers

### Oil Water Separators > Below Ground Oil Water Separators

Oil water separators are systems used as an efficient method to separate oils and some solids from a variety of wastewater discharges. They are typically installed in industrial and maintenance areas and receive oily wastewater. Our line of above ground oil water separators will assist in the removal of large quantities of free oil from your wastewater before any further treatment step you may have in your process. We have below ground oil water separators with flow rates ranging from 20 to 2000 gallons per minute and capacities up to over 20,000 gallons.

#### Related product links

[AFD-55](#) | [AFP-55 Series](#) | [BORS](#) | [Above Ground Separator \(ECOS\)](#) | [H-D Q-PAC](#) | [Inclined Plate Clarifiers](#) | [Hopper Separator](#) | [OilFree Polymerio Filtering](#)

#### Features

- Low maintenance cost
- Easily cleaned through the removable vapor tight cover(s)
- No moving parts or consumables
- No power consumption
- No chemicals, absorbent or filter cartridges to remove, replace or dispose of
- Service & maintenance of coalescing media and removal of sludge from outside
- No confined spaces
- Shallow burial depth

[HQB Series Diagram PDF](#) | [HQB Ballast & Pad Specs](#) | [HQB Series - How They Work](#)



#### Technical Features

- HQB's Oil/Water Separators are versatile and can be used in many different applications.
- Plasteel Eutron Jacketed Oil Water Separators are in a unique double wall jacketed construction with 360 degree interstitial monitoring.
- Primary tank of welded steel construction in accordance with UL 58.
- Secondary containment is constructed of FRP laminate that does not become brittle or soft below or above ground and has been successfully tested to UL 1746 requirements for corrosion protection.
- Cathodic protection and/or dielectric isolation not required.
- The Unipack cross fluted plates are manufactured of PVC, CPVC, PP, SS, or FRP.
- Sizes available up to GPM.

Dimensional Parameters for Ecologix Below Ground Oil Water Separators

MODEL	DIA	LENGTH	INLET	OUTLET	FLOW RATE	TANK CAPACITY (GAL.)	OIL SPILL CAPACITY (GAL.)
HQB342	3'-0"	4'-6"	4"	4"	20	400	320
HQB548	4'-0"	6'-3"	4"	4"	50	600	480
HQB1048	4'-0"	10'-9"	6"	6"	100	1000	800
HQB2064	5'-4"	12'-0"	6"	6"	200	2000	1600
HQB3064	5'-4"	18'-0"	8"	8"	300	3000	2400
HQB4072	5'-4"	24'-0"	8"	8"	400	4000	3200
HQB5072	6'-0"	23'-10"	8"	8"	500	5000	4000
HQB6072	6'-0"	28'-6"	10"	10"	600	6000	4800
HQB7084	7'-0"	24'-4"	10"	10"	700	7000	5600
HQB9084	7'-0"	28'-0"	10"	10"	900	9000	6400
HQB9096	8'-0"	24'-0"	12"	12"	900	9000	7200
HQB10096	8'-0"	26'-8"	12"	12"	1000	10,000	8000
HQB12096	8'-0"	32'-0"	12"	12"	1200	12,000	9600
HQB15121	10'-0"	25'-6"	14"	14"	1500	15,000	12,000
HQB21120	10'-0"	34'-0"	18"	18"	2000	20,000	16,000

#### Operation

The separator is a special purpose prefabricated parallel corrugated plate gravity displacement type oil/water separator designed to remove free and dispersed non-emulsified oil and sellable solids. In accordance with API 421. The separator capacities, dimensions, and construction will be in strict accordance with UL 58, and UL 1746. Separator shall be comprised of a tank containing:

#### Inlet Compartment

The inlet chamber will be comprised of a non-clog diffuser pipe to distribute the flow across the width of the separator chamber. The inlet compartment shall be of sufficient volume to effectively reduce influent suspended solids, dissipate energy and begin separation. A sludge baffle will be provided to prevent settleable solids and sediment from entering the separation chamber.

#### **4.0 OPERATIONAL BASIS AND PROCEDURES**

##### **4.1. Normal Operations**

Since the OWS is a passive gravity flow system no special "Operating" Procedures are necessary. The OWS is ready to receive wash water from the heavy equipment wash rack under all normal conditions. Care should be taken however to prevent excessive amounts of sand, grit, or gravel from entering the inlet catch basin.

##### **4.2. Inspections**

At time of installation, it is unknown how quickly the OWS will collect oil and sludge. Estimates to reach the 800 gallon light oil limit vary from 1 to 5 years. Accordingly, during the first one year of service, the access ports to the OWS should be removed and the interior should be visually inspected every six months. Thereafter, the OWS should be inspected at least annually. A wooden dipstick may be used to determine the approximate amount of sludge behind the sludge baffles and the approximate amount of light oil in the top of the tank. Alternately, a marked line tied to a small plastic bottle  $\frac{3}{4}$  full of water may be used to measure the level of the water/oil interface in the tank. Pumping of the tank on an annual basis will most likely be required. A longer pumping interval may be established based upon operational experience.

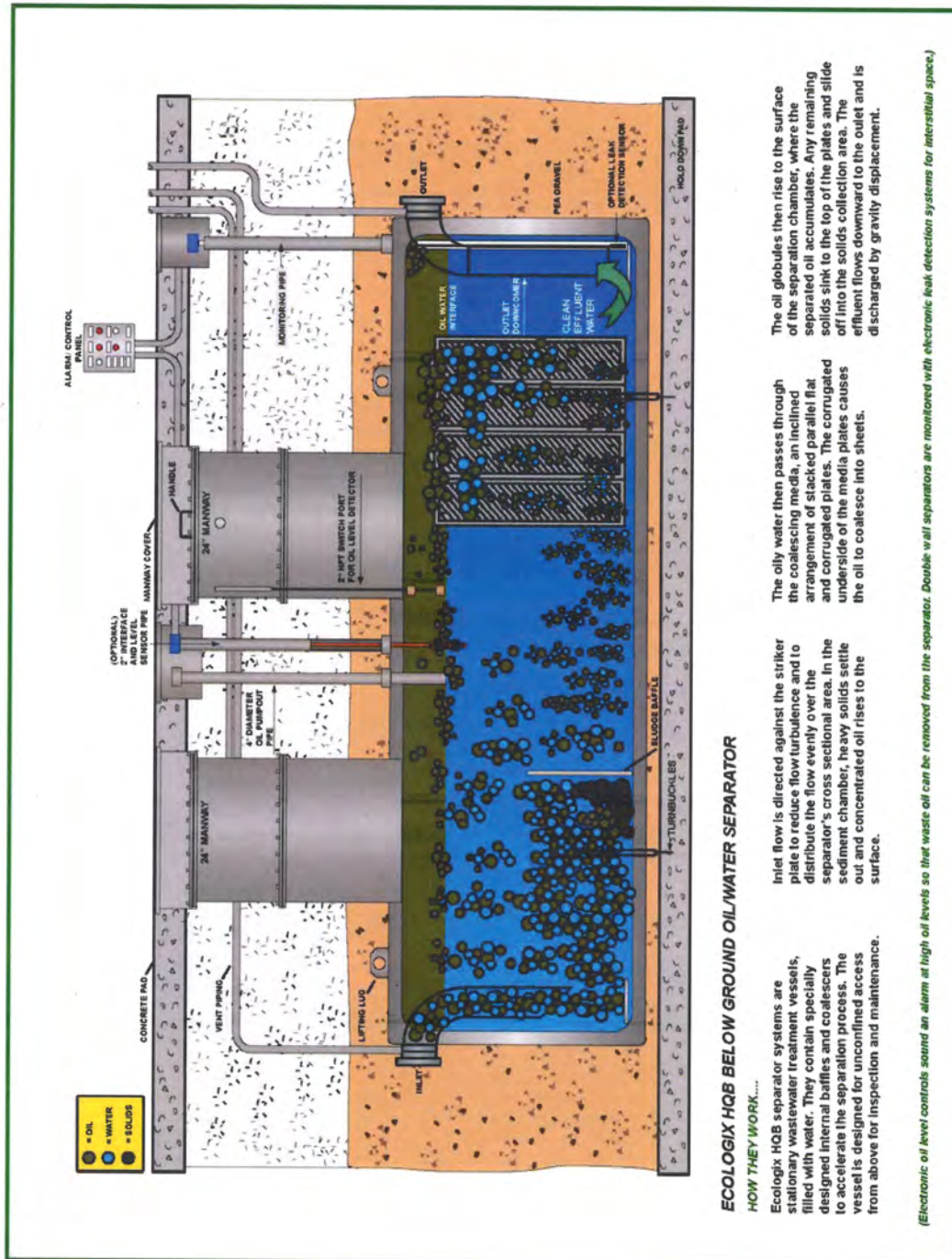
##### **4.3. Response to alarms**

- 4.3.1 Alarm 1-- "System Alarm". This alarm indicates a blocked flow condition in the effluent or outlet pipe. Discontinue use of the wash rack until the blocked flow condition is cleared. See 5.2 below for outlet line cleanout procedures
- 4.3.2 Alarm 2-- "High Oil Alarm". This alarm indicates that the OWS has reached its recommended oil storage limit of 800 gallons. Have the oil and sludge pumped from the OWS within two weeks of the activation of the "High Oil Alarm". The wash rack may continue to be used in the event of this alarm since the OWS can store up to an additional 800 gallons of oil without the risk of an oil release or spill.

#### **5.0 MAINTAINANCE PROCEDURES**

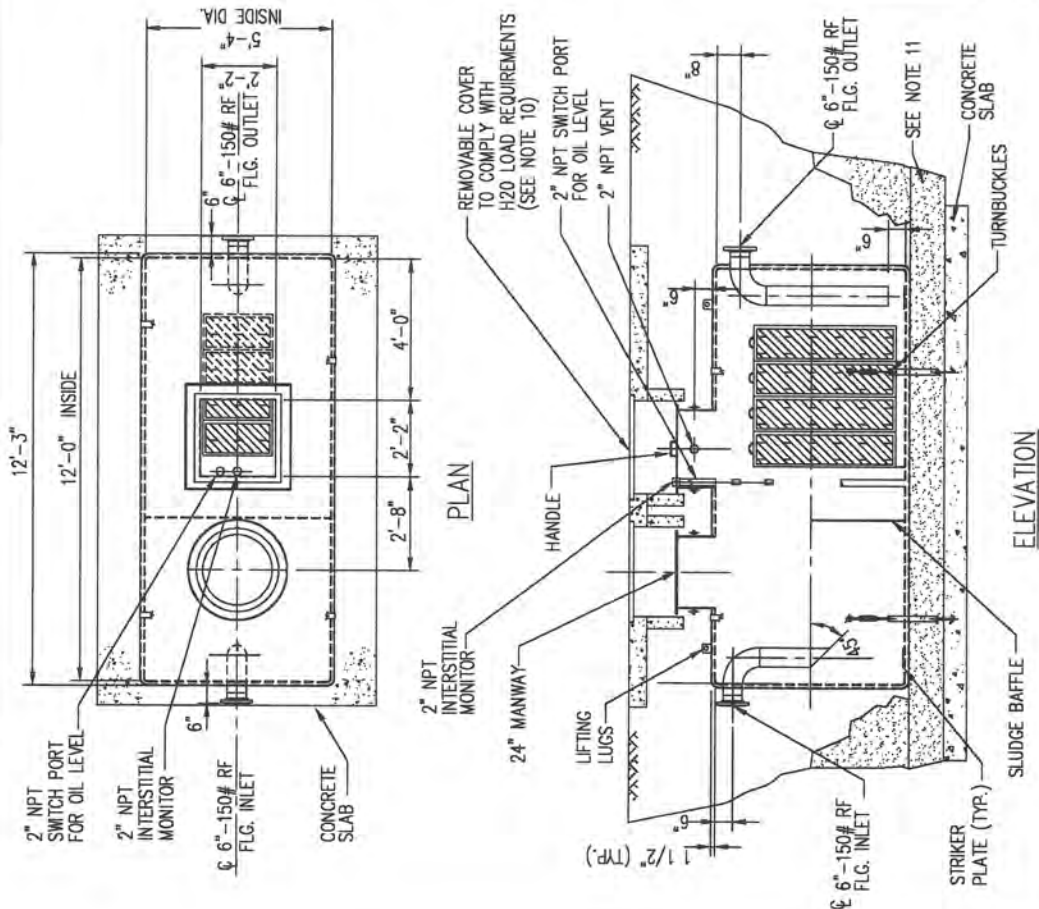
- 5.1. Collection system: The trench drain inlet should be cleaned of sludge and sediment on a twice yearly basis to prevent excess sediment from entering the OWS. If standing water is observed in the trench drain, the inlet pipe to the OWS should be checked for blockage and cleaned if necessary. The 6" ductile iron inlet line can be cleaned with standard sanitary sewer jetting or rodding equipment. Contact the LANL Utilities section to schedule cleaning of the inlet line.
- 5.2. Effluent (Outlet) line. If the 6" ductile iron outlet line becomes blocked, the line can be cleaned with standard sanitary sewer jetting or rodding equipment from either of the two cleanout access points provided. Contact the LANL Utilities section to schedule cleaning of the outlet line
- 5.3. Removal (pumping) of collected light oil and sludge and sediment.  
Pumping Procedure:
  - 1. Obtain approval for confined space entry. Comply with any entry requirements
  - 2. Remove the cover plate and inner lid on the west access manway
  - 3. Remove the light oil suction line cover plate just east of the east manway
  - 4. Using the waste oil vacuum truck suction line, pump all light oil off the top of the fluid in the tank until relatively clear water is obtained







- NOTES:**
1. SINGLE WALL IN ACCORDANCE WITH UL 58 STANDARDS.
  2. EXTERIOR: FRP 100 MILS PER UL 1746
  3. INTERIOR: CARBOLINE 300 MIL COALTAR EPOXY.
  4. VENT SIZING PER UL 58. ALL VENT PIPING IS BY OTHERS.
  5. ALL EXTERIOR PIPING IS BY OTHERS. ECOLOGIX RECOMMENDS A MINIMUM SLOPE OF 1/16" PER FOOT FOR ALL GRAVITY PIPING
  6. PRODUCT STORAGE CAPACITY IS 10% OF THE TOTAL TANK VOLUME.
  7. INSTALL OIL/WATER SEPARATOR PER FURNISHED INSTRUCTIONS.
  8. THIRTY (30) YEAR WARRANTY PROVIDED ON EXTERIOR CORROSION PROTECTION.
  9. 1/8" THICK NEOPRENE 50 DMS GASKETS AT ALL CONNECTIONS
  10. REMOVABLE COVERS TO MEET H-20 LOAD REQUIREMENTS IS AS REQUIRED AND CAN BE SUPPLIED W/OPTION.
  11. CLEAN INERT SAND, PEA GRAVEL OR CRUSHED STONE



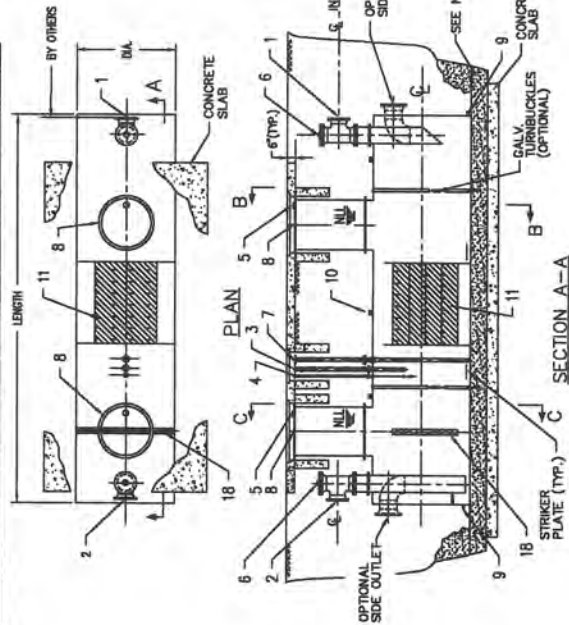
REV.	DESCRIPTION	DATE	INT.
	ECOLOGIX		
	Environmental Systems, LLC		
	MODEL HQB2064		
	OIL/WATER SEPARATOR		
PROJECT:			
REF:	FILE: HQB2064.DWG		
		DATE: 7/21/05	
		SCALE: 1/4" = 1'	
		REV: A	

ITEM	QTY.	STANDARD EQUIPMENT
1	1	INFLUENT PORT W/ISOLATION SPOOL PIECE
2	1	EFFLUENT PORT W/ISOLATION SPOOL PIECE
3	1	OIL PUMP/OUT PORT
4	1	LEVEL SENSOR PORT
5	1	SAMPLING / GLUING PORT
6	2	VENT
7	1	LEAK MONITOR
8	1	ACCESS MANWAY
9	A/R	SACRIFICIAL ANODE (STI-P3 ONLY)
10	A/R	LIFTING LUGS
11	A/R	COALESCING MEDIA
12	A/R	HOLD DOWN STRAP'S
13	1	OPTIONAL EQUIPMENT
14	1	INTERNAL LADDER
15	A/R	LEVEL CONTROL NEMA ENCLOSURE
16	A/R	LEAK DETECTION SYSTEM
17	A/R	AUTOMATIC OIL PUMP/OUT SYSTEM
18	A/R	POLISHING MEDIA
19	1	OIL STOP VALVE
20	A/R	ADDITIONAL MANWAY RISER HEIGHT
21	A/R	CUSTOMER SUPPLIED EQUIPMENT
22	A/R	INFLUENT & EFFLUENT PIPING
23	A/R	VENT PIPING
24	A/R	ALL OTHER EXTERNAL PIPING
25	A/R	CONCRETE BALLAST PAD OR DEADMAN
26	A/R	CONCRETE HOUSEKEEPING PAD
27	A/R	ANCHOR BOLTS

**NOTES:**

- OIL/WATER SEPARATOR TANK IS SINGLE/DOUBLE WALL STEEL, TYPE 1, CONSTRUCTED IN ACCORDANCE WITH UL 58 STANDARDS.
- EXTERIOR CORROSION PROTECTION PER STI P2 OR FRP.
- INTERIOR CORROSION PROTECTION CARBONLINE 300M.
- VENT SIZING PER UL 58. ALL VENT PIPING IS BY OTHERS.
- ALL EXTERIOR PIPING IS BY OTHERS. ECOLOGIX RECOMMENDS A MINIMUM SLOPE OF 1/16" PER FOOT FOR ALL GRAVITY PIPING.
- TANK ANCHORING CONSISTS OF (1) HOLD DOWN STRAP'S EQUALLY SPACED ALONG THE TANK.
- THE NORMAL LIQUID LEVEL IN THE TANK IS SET BY THE EFFLUENT PIPING IN GENERAL, THE LIQUID WILL COMPLETELY FILL THE TANK INTO THE MANWAY AS SHOWN.
- ALL CONCRETE WORK IS BY OTHER. THE DESIGN AND INSTALLATION OF THE CONCRETE SLAB OR DEADMAN IS THE RESPONSIBILITY OF THE INSTALLER.
- PRODUCT STORAGE CAPACITY IS 50% OF THE TOTAL TANK VOLUME.
- CONTROL PANEL INSTRUMENTATION PROBES AND ELECTRICAL CONTROL OR JUNCTION BOXES NOT SHOWN.
- INSTALL OIL/WATER SEPARATOR PER FURNISHED INSTRUCTIONS.
- THIRTY (30) YEAR WARRANTY PROVIDED ON EXTERIOR CORROSION PROTECTION.
- CLEAN INERT SAND, PEA GRAVEL OR CRUSHED STONE PAD BY OTHERS.

MODEL	DIA.	LENGTH	INLET	OUTLET	FLOW RATE	TANK CAPACITY (GAL.)	OIL SPILL CAPACITY (GAL.)
HQB342	3'-9"	4'-5"	4"	4"	20-40	400	320
HQB548	4'-0"	6'-3"	4"	4"	50-100	600	480
HQB1048	4'-0"	10'-9"	6"	6"	100-200	1000	800
HQB2064	5'-4"	12'-0"	6"	6"	200-400	2000	1600
HQB3064	5'-4"	18'-0"	8"	8"	300-600	3000	2400
HQB4064	5'-4"	24'-0"	8"	8"	400-800	4000	3200
HQB5072	6'-0"	23'-10"	8"	8"	500-1000	5000	4000
HQB6072	6'-0"	28'-8"	10"	10"	600-1200	6000	4800
HQB7084	7'-0"	24'-4"	10"	10"	700-1400	7000	5600
HQB8084	7'-0"	28'-0"	10"	10"	800-1600	8000	6400
HQB9096	8'-0"	24'-0"	12"	12"	900-1800	9000	7200
HQB1096	8'-0"	26'-8"	12"	12"	1000-2000	10000	8000
HQB1296	8'-0"	32'-0"	12"	12"	1200-2400	12000	9600
HQB15120	10'-0"	25'-8"	14"	14"	1500-3000	15000	12000
HQB21120	10'-0"	34'-0"	18"	18"	2000-4000	20000	16000



DESCRIPTION
Ecologix Environmental Systems, LLC 5100 Old Ellis Point, Roswell, GA 30076 (678) 514-2100 / (888) 326-2020 www.EcologixSystems.com
STANDARD CROSSFLOW OIL/WATER SEPARATOR GENERAL ARRANGEMENT BELOW GROUND
DATE REV: 11/15/06
DRAWN BY: R.J.M.

**ECOLOGIX INSTALLATION AND OPERATIONS MANUAL**

**Ecologix Environmental Systems, LLC**

5100 Old Ellis Point, Suite 200

Roswell, GA 30075

Toll Free: 888-326-2020

Tel: 678.514.2100

Fax: 678.514.2108

Email: [info@ecologixsystems.com](mailto:info@ecologixsystems.com) Web Site: [www.ecologixsystems.com](http://www.ecologixsystems.com)



**OIL WATER SEPARATOR  
OPERATION AND  
MAINTENANCE MANUAL**

**HQB2064**

Ecologix Environmental Systems, LLC [www.ecologixsystems.com](http://www.ecologixsystems.com)  
Phone 678-514-2100 · Fax 678-514-2108

## LIMITED WARRANTY

Ecologix equipment is warranted as to workmanship, material and performance when properly installed, used, and cared for, and provided that the original design criteria represent actual field data at the time of operation. Should any parts or parts prove defective within twenty-four (24) months from the date of purchase, it will be replaced F.O.B. destination without charge, provided the part (or parts) is returned transportation charges prepaid.

No allowance will be made for labor, transportation, or other charges incurred in the replacement or repair of defective parts by the customer. This warranty does not apply when damage is caused by conditions such as sand or abrasive materials pumped with the fluids, lightning, improper voltage supply, careless handling, improper installation, stray electrical interference, or due to substances or factors that were unknown to Ecologix at the time of purchase. Buyer shall have no claim, and no product or part shall be deemed defective, by reason of failure to resist erosive or corrosive action, nor for problems resulting from buildup of material within the equipment.

This warranty applies only to seller's equipment, under use and service in accordance with the seller's written instructions, recommendations and ratings for installation, operating and maintenance, and service. All claims for defective products, parts, or work under this warranty must be made in writing immediately upon discovery and, in any event, within one year of purchase.

This warranty is a *Limited Warranty*, anything in the warranty notwithstanding. Implied warranties for particular purpose and merchantability shall be limited to the duration of express warranty. The manufacturer expressly disclaims and excludes any liability of consequential or incidental damages for breach of any express or implied warranty.

Ecologix Environmental Systems, LLC [www.ecologixsystems.com](http://www.ecologixsystems.com)  
Phone 678-514-2100 · Fax 678-514-2106

**Table of Contents**

**SECTION**

- 1.0) INTRODUCTION**
- 2.0) SYSTEM DESCRIPTION AND REQUIREMENTS**
- 3.0) SAFETY AND ENVIRONMENTAL CONSIDERATIONS**
- 4.0) INSPECTION AND OFF LOADING**
- 5.0) SYSTEM INSTALLATION**
- 6.0) SEPARATOR SET UP AND START UP PROCEDURE**
- 7.0) QUALITY ASSURANCE**
- 8.0) MAINTENANCE PROCEDURES**
- 9.0) TROUBLESHOOTING**
- 10.0) MECHANICAL INFORMATION**
  - a) OWS GENERAL ARRANGEMENT DRAWING**
  - b) OWS INSTALLATION DRAWING**
  - c) CONTROL PANEL AND FLOAT SWITCH INFORMATION**
- 11.0) WARRANTY**



## **1.0) INTRODUCTION**

Ecologix Environmental Systems, LLC (Ecologix) Oil Water Separator (OWS) Model **HQB2064** will remove essentially all free and dispersed, non-emulsified oil, and settleable solids from the oil water mixture at a flow rate of 150 GPM at a temperature of 55° F. The design utilizes the difference in specific gravity between oil and water (buoyancy force) enhanced by the use of 24 cubic feet of HD Q-PAC coalescing plates. The separator is designed to receive oily water by gravity/pumped flow that will not mechanically emulsify the oil and will process it on a once through basis. The oil water separator will be a direct buried unit in accordance with the requirements of UL 58 and designed to withstand earth load, live load and hydraulic pressure. The separator will be a single wall unit with exterior corrosion protection. The tank comes with a 30 year limited warranty on exterior corrosion protection. The HD Q-PAC coalescing plates are manufactured of UV Resistant Polypropylene material.

## **2.0 SYSTEM DESCRIPTION AND REQUIREMENTS**

**2.1 FABRICATION:** The oil water separator is a special purpose prefabricated parallel-corrugated plate, cylindrical, gravity displacement, single wall unit. The separator capacities, dimensions and construction, shall be in strict accordance with UL 58, and UL 1746. The separator shall be comprised of a tank containing an inlet compartment, separation chamber, sludge chamber, oil storage compartment and clean water outlet chamber.

**2.2 TANK:** The tank shall be constructed of 10 gauge minimum thick carbon steel plate conforming to ASTM A36. Welding will be in accordance with AWS D1.1 to provide a watertight tank that will not warp or deform under load. Pipe connections to the exterior shall be as follows:

**2.2.1 PIPE CONNECTIONS:** All connections 3" and smaller are FNPT couplings. All connections 4" and larger are flat face flanges with ANSI 150 pound standard bolt circle. Use flanged piping connections that conform to ANSI B16.5.

**2.3 SEPARATOR CORROSION PROTECTION:** (For Carbon Steel Only) after shop hydrostatic test has been successfully completed, a coating system will be applied to the interior and exterior surfaces of the separator. Interior and exterior shall be sandblasted to SSPC-SP10 & SSPC-SP6; Interior lined with Tnemec Series 61 liner to 9 mils MDFT; Exterior coated with FRP Elutron to 100 mils MDFT.

**2.4 MANWAYS:** Manways will provide access into the separator to service the coalescer and sludge removal from grade level. The manways will be provided complete with extension, clamp down cover and gasket.

**2.5 LIFTING LUGS:** The tank shall be provided with properly sized lifting lugs for handling and installation.

Ecologix Environmental Systems, LLC [www.ecologixsystems.com](http://www.ecologixsystems.com)  
Phone 678-514-2100 · Fax 678-514-2106

**2.6 INLET COMPARTMENT:** The inlet chamber shall be comprised of a non-clog diffuser to distribute the flow across the width of the separation chamber. The inlet compartment shall be of sufficient volume to effectively reduce influent suspended solids, dissipate energy and begin separation. The media will sit elevated on top of a sludge baffle. The sludge baffle will be provided to retain settleable solids and sediment from entering the separation chamber.

**2.7 SEPARATION CHAMBER:** The oil separation chamber shall contain HD Q-PAC Coalescing Media containing a minimum of 132 square feet per cubic foot of effective coalescing surface area. The medias needle like elements (plates) shall be at 90 degrees to the horizontal or longitudinal axis of the separator. Spacing between these elements shall be spaced 3/16" apart for the removal of a minimum of 99.9% of free droplets 20 micron in size or greater. The elements are positioned to create an angle of repose of 90 degrees to facilitate the removal of solids that may tend to build up on the coalescing surfaces, which would increase velocities to the point of discharging an unacceptable effluent. Laminar flow with a Reynolds Number of less than 500 at a maximum designed flow rate shall be maintained throughout the separator packed bed including entrance and exit so as to prevent re-entrainment of oils with water. Flow through the polypropylene coalescing media shall be crossflow perpendicular to the vertical media elements such that all 132 square feet/cubic foot of coalescing media is available for contact with the coalescing surfaces. None of the coalescing media surfaces shall be pointing upward so as not to be available for contact with the crossflowing oily water. The media shall have a minimum of 87% void volume to facilitate sludge and dirt particles as they fall off the vertical elements and settle in the sludge compartment. The media when installed in crossflow OWS shall meet US EPA Method 413.2 and also European Standard 858-1.

**2.8 SLUDGE CHAMBER:** The sludge chamber shall be located prior to the coalescing compartment for the settling of any solids. It shall also prevent any solids from entering the clean water chamber.

**2.9 OIL STORAGE:** The waste oil storage shall be an integral part of the separator, and have a capacity of 30 percent of the total separator volume. Oil will be stored on the surface of the water and can be pumped away when oil/water interface reaches a predetermined depth.

**2.10 CLEAN WATER CHAMBER:** The tank will be provided with a clean water chamber which allows the water to leave the separator by gravity flow through the clean water outlet port.

**2.11 VENTS AND HOLD DOWN STRAPS:** (If required) sufficient vents and hold down straps will be provided.



	<p align="center"><b>TA60-01 Heavy Equipment Shop Oil Water Separator Operations &amp; Maintenance Manual</b></p>	<p>Rev: 0 Oct 30, 2009</p>
---	---	--------------------------------

### **3.0 SAFETY AND ENVIRONMENTAL CONSIDERATIONS**

- 3.1 All normal safety precautions should be taken with this equipment to prevent accidents and fires.
- 3.2 Normal fire prevention measures must be taken to prevent fire danger from separated oil.
- 3.3 Care should be taken to keep the area around the separator clean to prevent accidents.
- 3.4 Disposal of the separated oil and solids, which may contain hazardous material, must comply with the regulations of the authority having jurisdiction.
- 3.5 Safety and environmental protection are the responsibility of the user. ECOLOGIX assumes no liability for misuse of this separator or for use outside the purpose for which it is designed.

### **4.0 INSPECTION AND OFFLOADING**

- 4.1 **INSPECTION:** Inspect the oil water separator upon delivery for any damage, which may have occurred in shipment. Areas most susceptible to damage are connections and cover openings. If the separator is damaged, ECOLOGIX should be notified immediately. The off loading personnel should note the extent of damage and sign and date the bill of lading. A claim should be filed with the delivering carrier.
- 4.2 **OFF LOADING:** The separator must be carefully removed from the truck so the unit is not damaged. Components for the separator are often supplied in a separate carton. Proper rigging practices should be observed at all times. Hoisting equipment operators should attach a guide line to prevent the separator from swinging out of control. Do not drop the separator or allow it to fall hard in the process of inverting, turning, or moving. Do not slide the separator.
- 4.3 **COATINGS:** All damaged coatings should be touched up immediately ! Please contact the factory if more specific information is required. Under no conditions should chains or cables be put around the separator. Use spreader bars, and the lifting eyes on the unit.
- 4.4 **STORAGE:** If the equipment is not to be installed at the time of delivery, it should be stored in an area away from traffic. The ground should be level and free sharp objects that might damage the coatings. All equipment should be stored off the ground on timbers. All factory packing should remain intact until the unit is ready for installation. Equipment should be stored indoors. If not, care should be taken that tanks do not fill up with water and debris. Covering all of the equipment with a tarp is strongly recommended.

Ecologix Environmental Systems, LLC [www.ecologixsystems.com](http://www.ecologixsystems.com)  
Phone 678-514-2100 · Fax 678-514-2106

## **5.0 SYSTEM INSTALLATION**

When placing the separator for system operation, be sure it is installed in a concrete foundation, which provides adequate support under full load operating conditions. Even if a mounting skid is used, a concrete pad or other properly designed structure must be installed as a foundation. The length and width of this pad are dependent upon the footprint of the unit. Thickness of the concrete pad depends on local soil and frost conditions. A local qualified civil engineer should be contacted to determine these dimensions.

**5.1 FOR EQUIPMENT BURIED IN GROUND ON CONCRETE SLAB FOLLOW  
INSTALLATION INSTRUCTIONS PROVIDED BY THE STEEL TANK INSTITUTE  
FOR UNDERGROUND TANKS ON THE FOLLOWING PAGES.**

5.1.1 A concrete slab must be installed around the equipment if the separator is going to be subject to traffic loads. It should be designed to carry the load and transmit the load into adjacent, undisturbed soil, not onto the tank side walls!

5.1.2 If a concrete pad is not installed and the equipment is subject to traffic loads, deformation or in some cases total collapse of the equipment may occur. ECOLOGIX cannot be held responsible for equipment subjected to such loads!

## 5.2 LEVELING

5.2.1 At this point the equipment should be set exactly in place and the anchor bolts should be installed.

5.2.2 Remove any lids.

5.2.3 The tankage should now be made as level as possible. The absolute minimum requirements being, within  $\pm 1/16"$  per foot from inlet to outlet end of tank and  $\pm 1/16"$  per foot from side to side, maximum of  $\pm 1/4"$  total. Shim the tank, if necessary, until these parameters are met. We recommend the use of stainless steel shim stock. When installing shims, make sure to locate them under all vertical tank supports.

**NOTE:** We cannot stress enough the leveling process. It is better to invest a little time at this point than to try to correct an improperly leveled tank later. A level installation functions better, has a better appearance and will give you fewer problems in the future.

The next step toward system start involves the plumbing and electrical connections. Any valves and/or piping should be adequately supported and accepted piping and valve practices must be followed for proper system operation. Any pump or level probe wiring and conduit connections should be made at this time. If the unit includes internal level detection, insert the level detection level indicated on the drawing.

## 5.3 PLUMBING

5.3.1 When making connections to the equipment do not use the equipment as a pipe support. All plumbing should stand on its own if disconnected from equipment. ECOLOGIX cannot be held responsible for damage caused by using this equipment to support your plumbing.

5.3.2 Connections do not have to be made in the order listed below. Review your situation and make the connections in the most convenient order for your particular application.

Ecologix Environmental Systems, LLC [www.ecologixsystems.com](http://www.ecologixsystems.com)  
Phone 678-514-2100 · Fax 678-514-2106

5.3.3 Connect the outlet plumbing. The effluent plumbing must be the same size or larger than the nozzle size of the equipment. Do not reduce the size of the effluent piping as this might cause hydraulic overloading of the equipment. Also, try to run the discharge piping through as few changes as possible, as short a distance as possible and at a pitch of not less than 1/16" per foot. On gravity flow units it may be necessary to vent exterior piping to prevent air locks in discharge pipe.

5.3.4 Connect the inlet plumbing. The influent must be the same size or smaller than the nozzle size on the equipment. Do not increase the size of the influent piping as this might cause hydraulic overloading of the equipment. Also, the pitch of the pipe should not exceed 1/16" per foot.

5.3.5 On most units, vents will have been provided. These vents have been supplied to prevent air locks during surge conditions. For both indoor and outdoor applications the vents should be run to a location where noxious and sometimes volatile gas would pose no hazard. Follow all applicable fire codes with regards to size of vent pipe.

**Warning: Do not plug or otherwise obstruct air flow through the vents. Obstructing air flow through the vents could damage the unit and/or create a hazardous condition.**

## **6.0 SEPARATOR SET UP AND START UP PROCEDURES**

### **6.1 SEPARATOR SET UP PROCEDURES:**

The inlet flow to the separator must be by gravity or a positive displacement pump upstream. Centrifugal pumps greatly agitate the oil and water and tend to make a stable emulsion that is very difficult, if not impossible, to separate by gravity settling.

Separator flow should be controlled upstream to ensure even, steady flow, and stable conditions in the separator. Unstable flows tend to reduce efficiency and may cause high oil concentration at the outlet.

6.1.1 The separator tank is atmospheric in design and must be vented to the atmosphere. Consult the OWS drawing for location of all vents.

6.1.2 To achieve the desired flow, excessive throttling of the input must be avoided as this will also cause emulsification of the oil, adversely affecting separator performance. Especially avoid the use of globe type or other valves with high-pressure drops.

6.1.3 It is recommended that the effluent water flows by gravity flow from the separator. The pressure loss for the water effluent pipe shall not exceed the drop elevation of the customer lines. External piping should be separately supported. The separator is not designed to support piping.

6.1.4 To install the separator, follow these steps:  
(Please refer to attached installation drawing)

1. Ensure that the source of the water to be treated is properly regulated and not provided with a centrifugal pump or other device, which will cause emulsification such as a high-pressure drop valve.
2. Ensure that the separator is securely installed per installation drawing.

## **6.2 SEPARATOR START-UP PROCEDURES:**

### **6.2.1 Initial start-up.**

This procedure is to be followed after the installation of the separator or after the separator has been drained for maintenance and is ready to be restarted.

6.2.1.1 Ensure that the owner supplied upstream influent flow regulating valve is closed.

6.2.1.2 Before starting the flow to the unit, remove the coalescer access cover and ensure that the HD Q-PAC packs have not shifted and are securely fastened. The separator should contain plate packs, polishing pack and adjustable oil skimmer pipe tube. (Slot of skimmer to be turned upward away from water)

6.2.1.3 Ensure that there are not obstructions in the water outlet piping.

6.2.1.4 With the coalescer access cover off, fill the tank with clean water, establishing flow from the effluent opening. Check for leaks.

6.2.1.5 Allow the influent oil water mixture into the OWS tank.

6.2.1.6 Replace the coalescer access cover and bolt down liquid tight.

### **6.2.2 Normal operation:**

Carefully maintain flow at the rate set when flow was established. Once a sufficient quantity of oil has accumulated in the separator, turn the slot of the skimmer into the oil layer (The oil will then be decanted into an integral oil

storage compartment or to a separate tank outside of the separator). Disposal of the oil must comply with regulations of the authority having jurisdiction.

## **7.0 QUALITY ASSURANCE**

**7.1 INSPECTION:** Examine each component of the separator for compliance with requirements indicated in Section 2 - System Description & Requirements. This element of inspection shall encompass visual examination.

**7.2 PRETEST PROCEDURES:** After separator has been leveled, hydrostatically test unit for (4) hours by filling full with potable water, provided by customer, with means of getting it from the nearest source by the installer. Acceptance criteria for this test is no leakage after four (4) hours.

**7.3 TESTS:** After hydrostatic test has been successfully completed and unit has been properly connected to influent and effluent piping, allow influent oil water mixture of 100 ppm, to flow into separator filled with potable water. After injection, operate unit for a minimum of ten tank volume changes prior to testing for contaminant removal.

**7.4 TEST FOR CONTAMINANTS:** The installer shall test the effluent to ensure that it meets oil concentration levels described in Section 2 - System Description & Requirements. Test shall be performed by an independent certified testing laboratory.

**7.5 ANALYTICAL METHODS:** Test and sample preservation methods for test contaminants shall be in accordance with the latest revision of EPA Methods for Chemical Analysis of Water and Wastes. Effluent oil concentration shall be measured by gravimetric, Separatory Funnel Extraction Method API 413.1.

## **8.0 MAINTENANCE**

8.1 The separator should be checked periodically to determine if excessive amounts of solids and debris have accumulated. If this happens the solids may accumulate enough to plug the lower part of the HD Q-PAC plates. In this case, efficiency will be reduced and oil in the outlet water may exceed specified effluent limits.

8.2 After the first 6 months of operation, the inlet area should be inspected and cleaned as follows:

1. Stop the flow of influent to the separator.
2. Remove separator cover.
3. Dispose of separated oil per regulatory procedures.
4. Remove water from separator through drain or hose.

8.3 Measure and record the depth of the solids. Use this measurement as the timing basis for the next solids inspection and clean out. Consult OWS drawing for depth of sludge baffle. Solids should not exceed this depth.

8.4 The HD Q-PAC plates can be either cleaned in place or removed and cleaned .

1. For cleaning in place, connect a pressure water hose (1-15 psig) and insert in plate spacing on top of the plate packs. As the water flushes the dirt out of the plate packs it should be removed by the vacuum hose.
2. For removing plate packs outside of separator. Flush with garden hose (10-15 psig) over an area to prevent discharge of flushed water into groundwater. It is only necessary to remove all sludge from between the plates and any very heavy oil coating.

8.5 Examine tank interior for damage and repair any damage to internal coating.

8.6 To restart separator, reinstall HD Q-PAC plate packs and polishing pack in original position. Make sure that both are securely in place so that they do not float when unit is operational.

8.7 For start up, repeat steps in section 6 of these instructions.

## **9.0 TROUBLESHOOTING**

Regularly monitor the quality of the effluent leaving the separator. If any loss in effluent quality is observed, steps should be taken to correct the problem immediately. Some things to check if effluent quality has deteriorated are:

1. Have you exceeded the separators rated flow? If so, return the flow rate to the design flow rate.

Ecologix Environmental Systems, LLC [www.ecologixsystems.com](http://www.ecologixsystems.com)  
Phone 678-514-2100 · Fax 678-514-2106



2. Have you allowed the sludge to accumulate to a point where it has started to affect the performance of the separator? If so, take steps to have the sludge removed immediately. If it cannot be pumped out, you will have to drain the separator and remove the accumulated sludge.
3. Check the influent for surfactants or chemical emulsifiers. If any are present, you may need additional treatment in order to meet discharge requirements.
4. Are you pumping into the separator? If so, you may be mechanically emulsifying the influent oil. Sample the oil water from both before and after the pump. There should be no differences between the two samples. If you are mechanically emulsifying the oil you may have to change your influent pump to a low RPM positive displacement pump or similar pump that will cut down on shearing.
5. Check to make sure that the oil depth in the separator is not too great, a deep layer of product will reduce the efficiency of the separator. Free product should be removed and the separator put back in service.

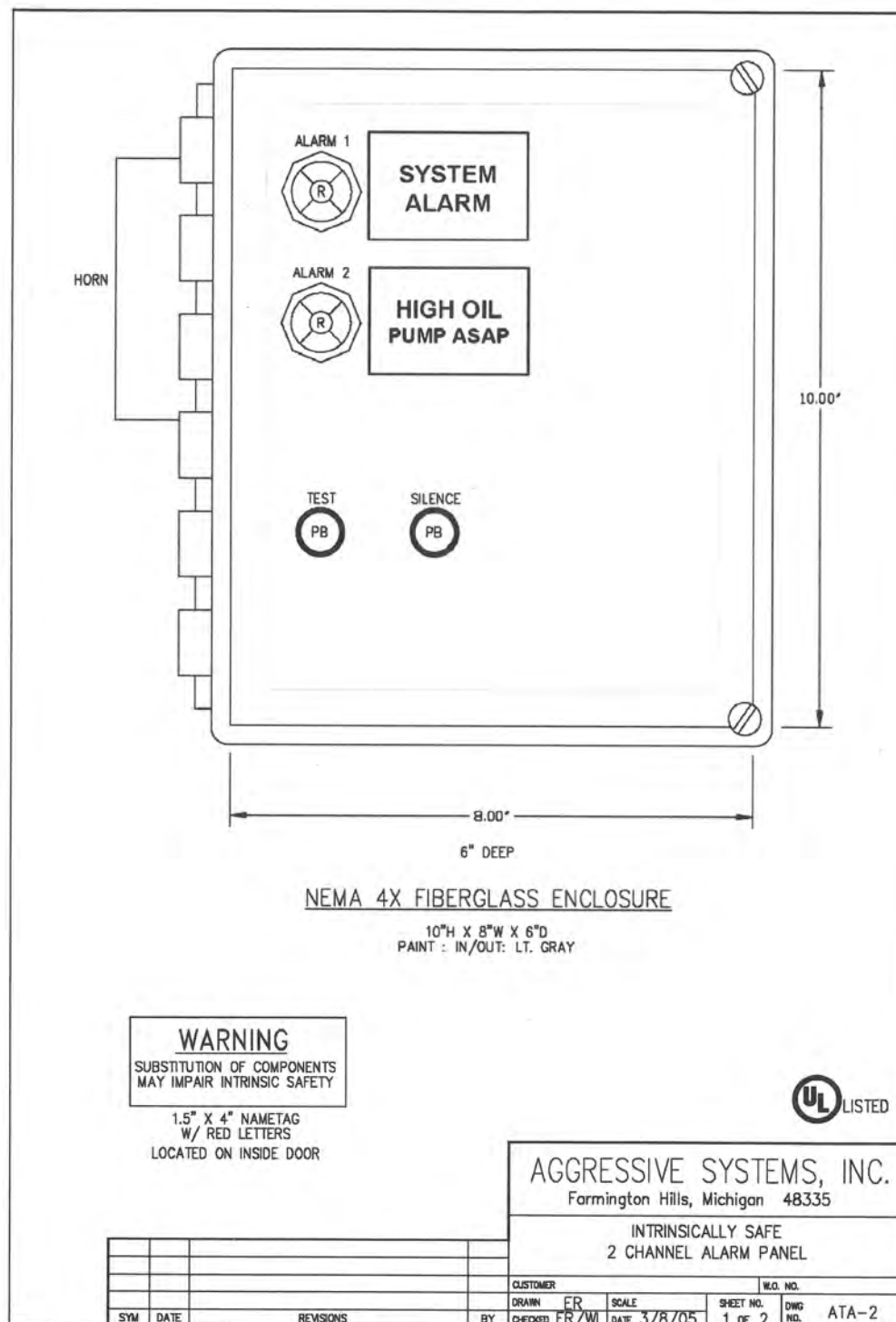
#### **9.1 TROUBLESHOOTING GUIDELINE**

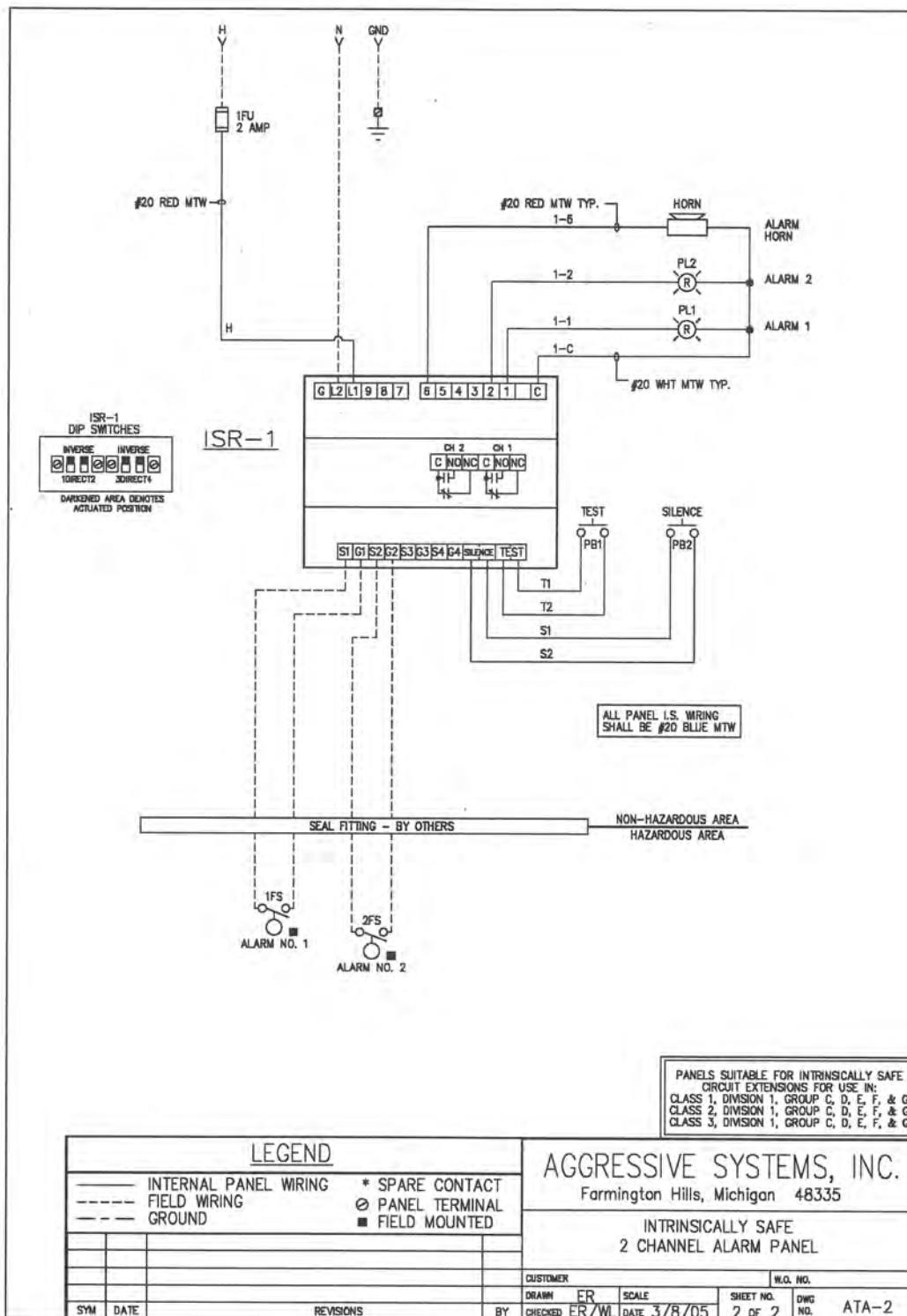
PROBLEM	POSSIBLE CAUSE	DIAGNOSTIC TECHNIQUE	CORRECTIVE ACTION
<b>EFFLUENT CONCENTRATION TOO HIGH</b>	Oil Concentration too Great for Design	Sample Influent	Decrease the Flow Rate
	Flow Too Great For Design	Check Flow	Decrease the Flow Rate
	Plates Blocked	Inspect, Remove Plates if Necessary	Clean Per Par. 8.4 Instructions and Reinstall.
	Solids have Accumulated Into Coalescer Plates	Check Depth of Solids In Coalescer Compartment	Remove Solids From Compartment See Par. 8.3.
<b>TANK IS OVERFLOWING</b>	Output Line Restricted	Check Flow	Remove Restriction

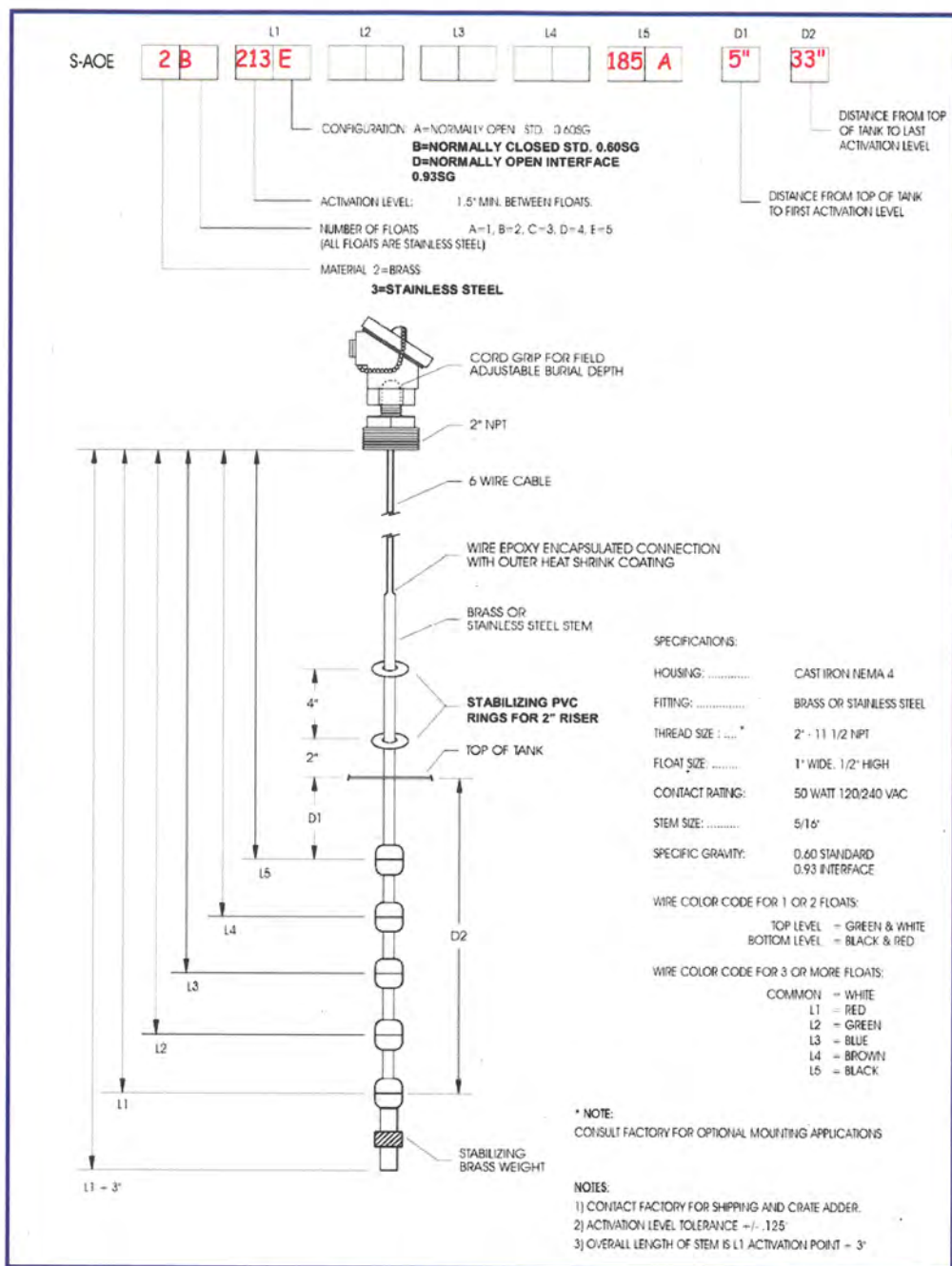
**Note:** For proper operation, outlet line should be as large as outlet nozzle unless unit is to be operated at very large flows

	<p><i>TA60-01 Heavy Equipment Shop Oil Water Separator Operations &amp; Maintenance Manual</i></p>	<p>Rev: 0 Oct 30, 2009</p>
---	--	--------------------------------

## AGGRESSIVE SYSTEMS LEVEL PROBE AND ALARM PANEL







**AGGRESSIVE Systems, Inc. 24361 Indoplex Circle, Farmington Hills, MI 48335**  
PHONE (248) 477-5300 FAX (248) 477-5626 WEBSITE: <http://www.aggressivesystems.com>

#### WARRICK INTERFACE RELAY

MODEL NUMBER	HAZARDOUS LOCATIONS	MAXIMUM CABLE LENGTH SHALL NOT EXCEED
47 Series	Class I, Group C & D; Class II, Group E, F & G	900 ft. For a Float Sensor 450 ft. For a Probe Sensor

#### NOTE:

Refer to Series 47 data information for distance recommendations so not to exceed the maximum capacitance or inductance limitations of the control.

Connect line terminals 1FU (fuse block) and L2 (neutral) of the control to incoming single phase (120 vac.) supply line

#### ALARM SENSOR CONNECTION:

Connect the ALARM 1 sensor to terminals S1 and G1 of the control.

Connect the ALARM 2 sensor to terminals S2 and G2 of the control.

Auxiliary contacts for remote monitoring of the alarm conditions are provided from slave relays for each alarm channel as shown on the wiring diagram. A form "C" contact is provided, a common, normally closed and normally open. The terminals will change states when the function is energized, and return to the normal state when the device is deenergized.

The contacts are isolated load contacts (Dry) and must be wired in series with its load and that series branch circuit connected across a power source compatible with the load.

#### OPERATING INSTRUCTIONS

If the ALARM 1 sensor closes, an indication light and audible alarm will energize. The audible alarm can be silenced by momentarily depressing the SILENCE pushbutton, however the indication light will remain on until the alarm condition is corrected.

If the ALARM 2 sensor closes, an indication light and audible alarm will energize. The audible alarm can be silenced by momentarily depressing the SILENCE pushbutton, however the indication light will remain on until the alarm condition is corrected.

#### SYSTEM TEST INSTRUCTIONS:

A normally open TEST pushbuttons are provided on the door of the control box for testing all alarm functions.

When the test pushbutton is depressed, the alarm indicating lights and audible alarm will be energized and the Normal light will deenergize. The audible alarm can be silenced by momentarily depressing the SILENCE pushbutton, however, the light will remain energized until the TEST pushbutton is released.

**INSTALLATION AND OPERATION INSTRUCTIONS FOR  
AGGRESSIVE SYSTEMS, INC. CONTROL PANEL ATA-2**

**INSTALLATION INSTRUCTIONS**

**IMPORTANT:** Completely read and thoroughly understand these instructions before proceeding to install and wire the control.

Mount control box vertically on wall or other solid structure. The maximum distance between the control box and the location of the electrodes is determined by the sensitivity of the 47 control(s). This information is supplied on Form 470.

**INTRINSICALLY SAFE GENERAL INFORMATION**

**IMPORTANT:** BEFORE PROCEEDING TO INSTALL AND WIRE THE ALARM PANEL, READ AND THOROUGHLY UNDERSTAND THESE INSTRUCTIONS.

Experienced personnel should use the following information as a guide to the installation of intrinsically safe alarm panels. Selection or installation of equipment should always be accompanied by competent technical assistance. We encourage you to contact Aggressive Systems, Inc. or its local representative if further information is required.

The control panel contains a U.L. Listed interface relay with Intrinsically Safe Sensing Circuits. The interface relay is Associated Apparatus listed under Process Control equipment, with Intrinsically Safe Outputs for Interface into Division 1 Hazardous Locations. The Circuits are to be connected to any simple non-energy generating or storing device such as a pushbutton, limit, float switch, or any Warrick electrode and fitting assembly.

The control panel is reassembled and ready to wire. Locate the panel in a non-hazardous area where an explosive environment does not exist.

Cabinet and mounting plate to be connected to a good earth ground. For additional guidance on "Hazardous Location Installation," and "Intrinsically Safe Devices," consult ANSI/ISA standard RP 12-6 or NEC ARTICLES 500 through 516.

**CAUTION:**

Intrinsically safe wiring must be kept separate from non-intrinsically safe wiring. Special procedures have been followed during the manufacturing of these control panels to insure proper spacing. Some models incorporate isolated barriers or covers for this purpose.

A separate rigid metallic conduit should be used to enclose the conductors of the intrinsically safe circuit. Multiple runs of intrinsically safe wiring may be run in the same conduit only where at least 0.25mm (0.010 inch) thick insulation, suitable for the maximum temperature, is used on each conductor. Refer to ANSI/ISA RP 12.6 for details. Conduit or cable, containing the intrinsically safe wiring, shall be sealed in accordance with the National Electrical Code, NFPA No. 70, (approved sealing fitting), where the conduit enters or exits the hazardous locations.

**INDUCTANCE AND CAPACITANCE:** For intrinsically safe wiring use 16 AWG or 14 QWG TYPE THHN/THHW/THWN or MTW. By using these types of wire in conjunction with a limitation on distance, you will not exceed the maximum capacitance or inductance for field wiring.

Use the following chart as a guide for maximum total length of all the intrinsically safe wiring (of each conductor), excluding any ground wiring.



 <p>Los Alamos NATIONAL LABORATORY</p>	<p><i>TA60-01 Heavy Equipment Shop Oil Water Separator Operations &amp; Maintenance Manual</i></p>	<p>Rev: 0 Oct 30, 2009</p>
---	--	--------------------------------

### 3.4 Sitrans Flow Sensor



**Quick Start Manual • May 2008**



English  
Dansk  
Deutsch  
Ελληνικά  
Español  
Français  
Italiano  
Nederlands  
Português  
Suomi  
Svenska

million  
in one

# sitrans

PROBE LU (PROFIBUS PA)

**SIEMENS**

**Safety Guidelines:** Warning notices must be observed to ensure personal safety as well as that of others, and to protect the product and the connected equipment. These warning notices are accompanied by a clarification of the level of caution to be observed.

**Qualified Personnel:** This device/system may only be set up and operated in conjunction with this manual. Qualified personnel are only authorized to install and operate this equipment in accordance with established safety practices and standards.

**Unit Repair and Excluded Liability:**

- The user is responsible for all changes and repairs made to the device by the user or the user's agent.
- All new components are to be provided by Siemens Milltronics Process Instruments Inc.
- Restrict repair to faulty components only.
- Do not reuse faulty components.

**Warning:** This product can only function properly and safely if it is correctly transported, stored, installed, set up, operated, and maintained.

**This product is intended for use in industrial areas. Operation of this equipment in a residential area may cause interference to several frequency based communications.**

**Note:** Always use product in accordance with specifications.

Copyright Siemens Milltronics Process Instruments Inc. 2008. All Rights Reserved	Disclaimer of Liability
This document is available in bound version and in electronic version. We encourage users to purchase authorized bound manuals, or to view electronic versions as designed and authored by Siemens Milltronics Process Instruments Inc. Siemens Milltronics Process Instruments Inc. will not be responsible for the contents of partial or whole reproductions of either bound or electronic versions.	While we have verified the contents of this manual for agreement with the instrumentation described, variations remain possible. Thus we cannot guarantee full agreement. The contents of this manual are regularly reviewed and corrections are included in subsequent editions. We welcome all suggestions for improvement.  Technical data subject to change.

MILLTRONICS® is a registered trademark of Siemens Milltronics Process Instruments Inc.

**Contact SMPI Technical Publications  
at the following address:**

Technical Publications  
Siemens Milltronics Process Instruments Inc.  
1954 Technology Drive, P.O. Box 4225  
Peterborough, Ontario, Canada, K9J 7B1  
Email: [techpubs.smpi@siemens.com](mailto:techpubs.smpi@siemens.com)

**European Authorized Representative**

Siemens AG  
Industry Sector  
76181 Karlsruhe  
Deutschland

- For a selection of Siemens Milltronics level measurement manuals, go to: **[www.siemens.com/processautomation](http://www.siemens.com/processautomation)**. Under Process Instrumentation, select *Level Measurement* and then go to the manual archive listed under the product family.
- For a selection of Siemens Milltronics weighing manuals, go to: **[www.siemens.com/processautomation](http://www.siemens.com/processautomation)**. Under Weighing Technology, select *Continuous Weighing Systems* and then go to the manual archive listed under the product family.

## SITRANS Probe LU (PROFIBUS PA) Quick Start Manual

English

This manual outlines the essential features and functions of the SITRANS Probe LU (PROFIBUS PA). We strongly advise you to acquire the detailed version of the manual so you can use your instrument to its fullest potential. The complete manual can be downloaded from the Siemens website at: [www.siemens.com/level](http://www.siemens.com/level). The printed manual is available from your local Siemens representative.

Questions about the contents of this manual can be directed to:

Siemens Milltronics Process Instruments Inc.  
1954 Technology Drive, P.O. Box 4225  
Peterborough, Ontario, Canada, K9J 7B1  
Email: [techpubs.smpi@siemens.com](mailto:techpubs.smpi@siemens.com)

Copyright Siemens Milltronics Process Instruments Inc. 2008. All Rights Reserved	Disclaimer of Liability
We encourage users to purchase authorized bound manuals, or to view electronic versions as designed and authored by Siemens Milltronics Process Instruments Inc. Siemens Milltronics Process Instruments Inc. will not be responsible for the contents of partial or whole reproductions of either bound or electronic versions.	While we have verified the contents of this manual for agreement with the instrumentation described, variations remain possible. Thus we cannot guarantee full agreement. The contents of this manual are regularly reviewed and corrections are included in subsequent editions. We welcome all suggestions for improvement.  Technical data subject to change.

MILLTRONICS is a registered trademark of Siemens Milltronics Process Instruments Inc.

### Safety Guidelines

Warning notices must be observed to ensure personal safety as well as that of others, and to protect the product and the connected equipment. These warning notices are accompanied by a clarification of the level of caution to be observed.



**WARNING:** relates to a warning symbol on the product, and means that failure to observe the necessary precautions can result in death, serious injury, and/or considerable material damage.



**WARNING<sup>1</sup>:** means that failure to observe the necessary precautions can result in death, serious injury, and/or considerable material damage.

**Note:** means important information about the product or that part of the operating manual.

<sup>1</sup> This warning symbol is used when there is no corresponding caution symbol on the product.

## SITRANS Probe LU (PROFIBUS PA)

**! WARNING: Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.**

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate, radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving transducer.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a different circuit from the one to which the receiver is connected.
- Consult an experienced radio/TV technician for help.

**Note:** This product is intended for use in industrial areas. Operation of this equipment in a residential area may cause interference to several frequency based communications.

SITRANS Probe LU is a 2-wire loop-powered, continuous level monitor that uses advanced ultrasonic techniques. The instrument consists of an electronic component coupled to the transducer and process connection.

The transducer is available in ETFE (ethylene-tetrafluoroethylene) or PVDF (polyvinylidene fluoride), allowing SITRANS Probe LU to be used in a wide variety of industries and applications using corrosive chemicals.

The ultrasonic transducer contains a temperature-sensing element to compensate for temperature changes in the application.

Communication is via PROFIBUS PA. This device supports acyclic communications from both a PROFIBUS Class I and Class II master. Signals are processed using Sonic Intelligence® which has been field-proven in over 500,000 applications worldwide (ultrasonic and radar).

SITRANS Probe LU is available in three versions:

- General Purpose (non-hazardous)
- Intrinsically Safe (with suitable barrier)
- Non-Incendive (FM Class I, Div. 2)

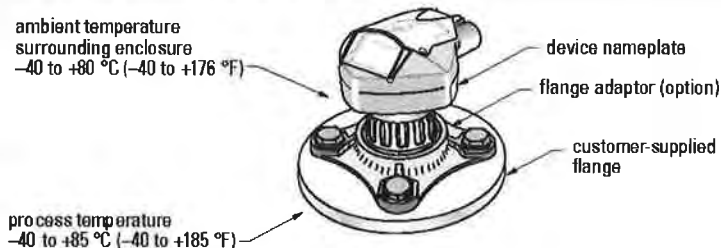
## Specifications

For a complete listing, see the SITRANS Probe LU (PROFIBUS PA) Instruction Manual. For Approvals information, please refer to the device nameplate<sup>1</sup>.

<sup>1</sup> The device nameplate is shown on the inside front cover of this manual.

## Ambient/Operating Temperature

**Note:** Process temperature and pressure capabilities are dependent upon information on the device nameplate. The reference drawing listed on the nameplate can be downloaded from the Siemens website. Go to the SITRANS Probe LU product page at <http://pia.khe.siemens.com/index.asp?Nr=11157>.



## Power

- Bus powered On PROFIBUS PA, as per IEC 61158-2
- Current consumed 12 mA (default value)<sup>1</sup>

## Performance

- Update time with 12 mA loop current<sup>1</sup> 6.0 s (typical), maximum 16.0 s<sup>2</sup>

## Approvals

- General CSA<sub>US/CA</sub>, FM, CE
- Hazardous Intrinsically Safe (Europe) ATEX II 1 G EEx ia IIC T4  
(US/Canada) FM<sup>3</sup> (pending) /CSA<sup>3</sup>: barrier required  
Class I, Div. 1, Groups A, B, C, D  
Class II, Div. 1, Groups E, F, G  
Class III T4
- Non-incendive (US) FM<sup>4</sup> (pending):  
Class I, Div. 2, Groups A, B, C, D T5

**Note:** The use of approved watertight conduit hubs/glands is required for Type 4X/  
NEMA 4X, Type 6/NEMA 6, IP67, IP68 (outdoor application).

<sup>1</sup> For 13, 15, or 20 mA options, see *PROFIBUS Current Consumption* on page 13.  
<sup>2</sup> Temperature dependent: typical value at +20 °C (+68 °F); max. value at +80 °C (+176 °F).  
<sup>3</sup> See *FM/CSA Intrinsically Safe Connection Drawing* on page 1 of Appendix A, for drawing number 23650617.  
<sup>4</sup> See *FM: Class I, Div. 2 Connection Drawing* on page 5 of Appendix A, for drawing number 23650583.

## Installation



### WARNINGS:

- Installation shall only be performed by qualified personnel and in accordance with local governing regulations.
- SITRANS Probe LU is to be used only in the manner outlined in this manual, otherwise protection provided by the equipment may be impaired.

**Note:** Please refer to the device nameplate for approval information.

## Mounting location

### Recommendations

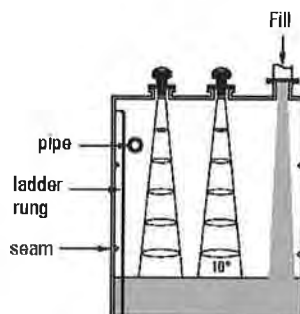
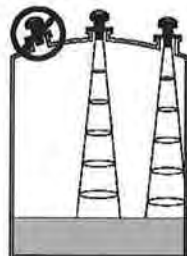
- Ambient temperature should be within  $-40$  to  $+80$  °C ( $-40$  to  $+176$  °F).
- Provide easy access for viewing the display and programming via the handheld programmer.
- Provide an environment suitable to the housing rating and materials of construction.
- Keep the sound path perpendicular to the material surface.

### Precautions

- Avoid proximity to high voltage or current wiring, high voltage or current contacts, and to variable frequency motor speed controllers.
- Avoid interference to the sound path from obstructions or from the fill path.

The sound path should be:

- perpendicular to the monitored surface
- clear of rough walls, seams, rungs, or other obstructions
- clear of the fill path





## Mounting instructions

**Note:** Ideally, mount SITRANS Probe LU so that the face of the transducer is at least 300 mm (1 ft) above the highest anticipated level.

SITRANS Probe LU is available in three thread types: 2" NPT, 2" BSP, or PF2/G (BS EN ISO 228-1).

1. Before inserting SITRANS Probe LU into its mounting connection, ensure that the threads are of the same type to avoid damaging them.
2. Simply screw SITRANS Probe LU into the process connection and hand tighten.

## Wiring

### Power

#### WARNINGS:



DC terminals shall be supplied from an SELV<sup>1</sup> source in accordance with IEC-1010-1 Annex H.

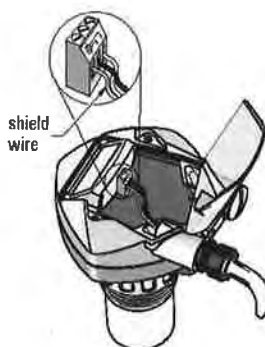


All field wiring must have insulation suitable for rated voltages.

## Connecting SITRANS Probe LU (PROFIBUS PA)

#### Note:

- For detailed wiring instructions, please see the full manual.
  - For Intrinsically Safe setups (FM/CSA Class I, Div. 1), see *FM/CSA Intrinsically Safe Connection Drawing* on page 1 of Appendix A, for drawing number 23650617.
  - For Non-Incendive setups (FM: Class I, Div. 2), see *FM: Class I, Div. 2 Connection Drawing* on page 5 of Appendix A, for drawing number 23650583.
  - The non-metallic enclosure does not provide a continuous ground path between conduit connections: use grounding-type bushings and jumpers.
  - Separate cables and conduits may be required to conform to standard instrumentation wiring practices, or electrical codes.
1. Strip the cable jacket for approximately 70 mm (2.75") from the end of the PROFIBUS PA cable, and thread the wires through the gland<sup>2</sup>.
  2. Connect the wires to the terminal as shown:  
Probe LU (PROFIBUS PA) is not polarity-sensitive.



<sup>1</sup> Safety Extra Low Voltage

<sup>2</sup> If cable is routed through conduit, use only approved suitable-size hubs for waterproof applications.

3. Ground the instrument according to local regulations
  - For Intrinsically Safe applications, connect the cable shield to the instrument shield connection<sup>1</sup>, and ground the shield connection to an external ground that is connected to an equal-potential grounding grid. For more detail on Explosion Protection, you can download the brochure *Siemens Process Automation Explosion Protection* (part number A5E00265440) from [www.siemens.com/level](http://www.siemens.com/level), under Brochures/General.
  - For General Purpose applications, ground the shield at one point only (usually the power supply side) and continue the shield from device to device, connecting it to the shield connection in each Probe LU.
4. Tighten the gland to form a good seal.
5. Close the cover and tighten screws: **please do not overtighten screws**. Recommended torque is 0.5 to 1.1 N-m (5 to 10 in-lb).

**Note:** PROFIBUS PA must be terminated at both extreme ends of the cable for it to work properly. Please refer to the *PROFIBUS PA User and Installation Guidelines* (order number 2.092), available from [www.profibus.com](http://www.profibus.com).

## Communications via PROFIBUS PA

### Notes:

- The following instructions assume that the user is familiar with PROFIBUS PA.
- For a complete list of applicable parameters, please see the full manual.

### Configuring the PROFIBUS PA master

To configure SITRANS Probe LU on the network, you will need the GSD file. You can download the files (**SIEM8124.gsd** for the 6 m Probe LU, or **SIEM8123.gsd** for the 12 m Probe LU) from our web site. Go to the SITRANS Probe LU product page at: <http://pia.khe.siemens.com/index.asp?Nr=11157> and click **Downloads**.

### Startup

SITRANS Probe LU automatically starts up in **RUN** mode, and detects the material level. The LCD displays the material level referenced from the Low Level Point<sup>2</sup> (the output of Analog Input Function Block1/AIFB1). System status is displayed on the LCD, or on a remote communications terminal.

<sup>1</sup>. The instrument shield connection is internally connected to the external ground lug.

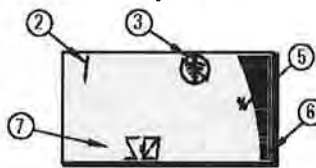
<sup>2</sup>. See *Quick Setup* on page 11 for an illustration.

## Startup Display (RUN mode)

Normal operation



Failsafe operation



1 – Primary region displays material level (Output of the active AIFB)

2 – Menu number (displays the number of the active AIFB: 1 or 2)

3 – Echo status indicator: Reliable Echo  or Unreliable Echo 

(The Unreliable Echo border flashes if Loss of Echo (LOE) is pending<sup>1</sup>. When LOE becomes active, the border is solid and the secondary region displays **S:0**.)

4 – Bar graph border (always visible in RUN mode)

5 – Units or Percent

6 – Active bar graph represents material level

(The lowest bar flashes once per second as a heartbeat.)

7 – Secondary region displays one of the following:


- Internal electronics temperature
- Value representing echo confidence
- Distance (Secondary Value 2)
- General status information, or a fault code (see the full manual for a list of fault codes and their meanings)

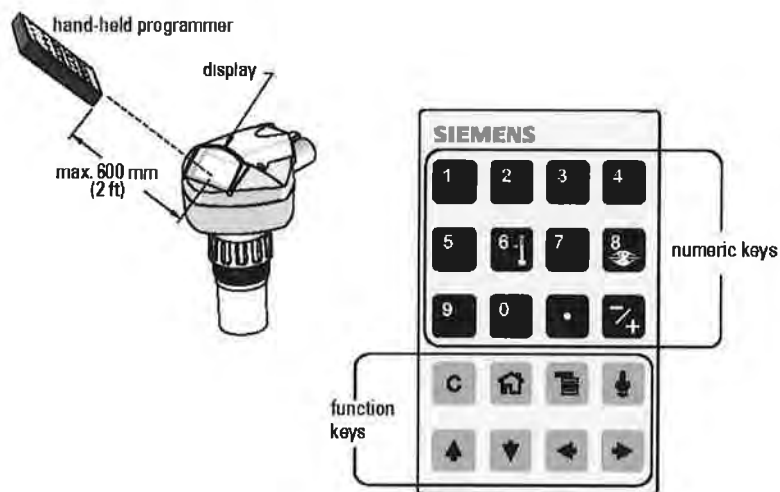
## Programming SITRANS Probe LU (PROFIBUS PA)

The parameters that control the operation of the Probe LU (PROFIBUS PA) are organized into function groups, and arranged in a 4-level menu structure that can be accessed either via the handheld programmer, or via PDM and PROFIBUS PA. (For charts showing the complete menu structure, refer to the full manual.)




<sup>1</sup> For more details on Loss of Echo, refer to the full manual.

## The handheld programmer<sup>1</sup>

To activate PROGRAM mode, point the handheld programmer at the display from a maximum distance of 600 mm (2 ft), and press the Mode key .

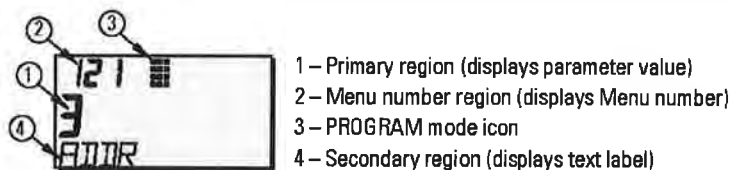


Within Program Mode, the handheld programmer has two modes of operation: Navigation and Edit.

- Press the Mode key  to switch from RUN to PROGRAM and enter Navigation Mode: the rightmost digit of the menu number flashes and the PROGRAM icon  is not visible.
- Press Right arrow a second time to change the mode from Navigation to Edit.
- In Edit mode, the PROGRAM icon  appears and flashes.

## PROGRAM Mode Display

**Note:** SITRANS Probe LU (PROFIBUS PA) continues to monitor In and Out values even when the device is in PROGRAM mode.



<sup>1</sup> For complete instructions on local programming using the handheld programmer, please see the full manual.

When you activate PROGRAM mode for the first time in any power cycle, the LCD displays the first menu. If, during the same power cycle, you switch to RUN mode, and then back to PROGRAM mode, the LCD will display the menu or item that was last accessed in PROGRAM mode.

## Security

### Local operation enable

Local Operation can be enabled or disabled via PDM. Go to **Identification > Device > Local Operation Enable** and select the desired setting.


### Write Locking

Write locking prevents any changes to parameters via PDM or via the handheld programmer, but still allows access to the device.

Via PDM, open the menu **Device – Write Locking**, and select **Off** or **On**.

Hand programmer values	2457 (unlock value)	Off	Enables parameter changes
	any other value	On	Disables parameter changes


Via the handheld programmer:

- Open **Identification** Menu, then scroll down to CONFIG.
- Press **Right ARROW**  to open the Config Menu, then scroll down to LOCK.
  - 1. Identification**
    - 1.3. Configuration
      - 1.3.5. Lock
- To enable programming, set LOCK to **2457**. To disable programming, enter any other value.

### Remote operation enable

Remote Operation can be enabled or disabled via the handheld programmer.

Values	0	Off	Remote operation enabled.
	1	On	Remote operation disabled.

- Open **Identification** Menu, then scroll down to CONFIG.
- Press **Right ARROW**  to open the Config Menu, then scroll down to REMLOCK.
  - 1. Identification**
    - 1.2. Configuration
      - 1.2.2. Remote Lockout
- To enable programming, set REMLOCK to **0**. To disable programming, enter **1**.

### Master Reset

In PDM, open the menu **Device – Master Reset**, to access the reset options, including Factory Reset.

## Activating SITRANS Probe LU









**Note:** Keep infrared devices such as laptops, cell phones, and PDAs, away from SITRANS Probe LU (PROFIBUS PA) to prevent inadvertent operation.

Power up the instrument. SITRANS Probe LU (PROFIBUS PA) starts in **RUN** mode, and the LCD displays the output of AIFB1.

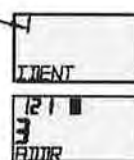
### Network Address (default 126)

#### Verifying/changing the device address via the handheld programmer

##### Notes:

- Local programming must be enabled, to allow changes (see *Local operation enable* on page 9).
  - **CLEAR**  can be used to clear the field.
  - Press **Right ARROW**  to open Edit mode: the PROGRAM icon flashes.
  - Press **Left ARROW**  to cancel Edit mode: the Menu number flashes (the PROGRAM icon is not visible).
1. Press **Mode**  to activate **PROGRAM** mode and open Menu level 1.
  2. Press **Right ARROW**  twice to navigate to PROFIBUS Address.
  3. Press **Right ARROW**  again to open Edit mode: the PROGRAM icon will flash.
  4. Key in a new value and press **Right ARROW**  to accept it. (The LCD displays the new value, PROGRAM icon disappears, and the last menu digit flashes to indicate Navigation mode.)
  5. Press **Mode**  to return to RUN mode.

Menu level: last  
digit flashes in  
Navigation mode



Program icon:  
flashes in Edit  
mode



Right-most digit  
flashes in  
Navigation mode



### Performing calibration via PROFIBUS PA

To use PROFIBUS PA, you will need a PC configuration tool: we recommend SIMATIC PDM. Please consult the operating instructions or online help for details on using SIMATIC PDM. (An Application Guide *SMPI PROFIBUS PA instruments and SIMATIC PDM* is available on our website at: <https://pia.khe.siemens.com/index.asp?Nr=11157>.)

### Changing parameter settings

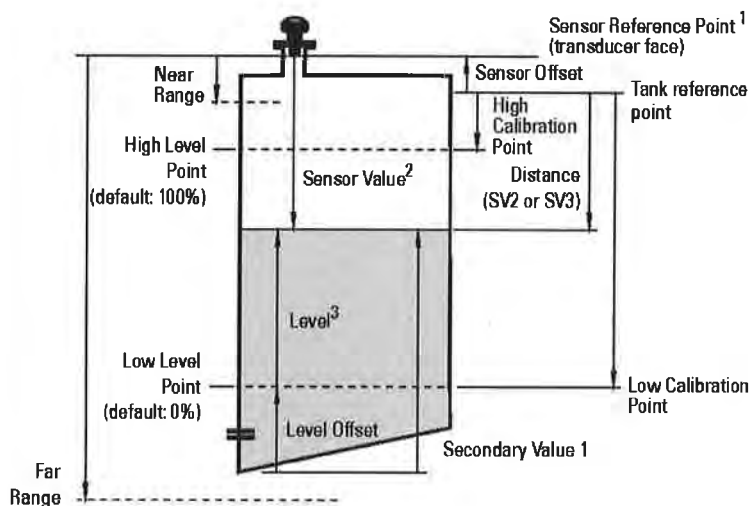
- First launch SIMATIC PDM, connect to SITRANS Probe LU (PROFIBUS PA), and upload data from the device.
- Adjust parameter values in the parameter view field (right side of screen).
- After adjusting the value, press **Enter** (the status fields read **Changed**).
- When you have completed the adjustments, open the **Device** menu, download data to the device, and save parameter settings offline (the status fields go blank).

### Quick Setup

Only four settings are required for a Quick Setup:

- High Calibration Point and High Level Point
- Low Calibration Point and Low Level Point

Primary Variable (PV) will be level (SV1). SV1 (Secondary Value 1) is the sum of Level plus Level Offset (if any).



<sup>1</sup> Sensor Reference Point: the point to which all of the above parameters are referenced.

<sup>2</sup> Sensor Value: the value produced by the echo processing, which represents the distance from the Sensor Reference Point to the target.

<sup>3</sup> Level Value: the level measured in level units.



## Calibration

1. Open the menu **Device – Sensor Calibration** and select the tab **Dry Calibration**. (Click on **Additional Information** to see the schematic showing the PROFIBUS parameters.)
2. Enter the new value for Low Calibration Point (default units are meters).
3. Enter the corresponding value for Low Level Point in percent (default is 0).
4. Enter the new value for High Calibration Point (default units are meters).
5. Enter the corresponding value for High Level Point in percent (default is 100).
6. Click on **Transfer**.
7. SITRANS Probe LU is now ready to operate.

## Auto False Echo Suppression

*Enables a 'learned' TVT curve to be used in place of the default TVT curve. Use this feature to ignore false echoes on the echo profile. Set Range (Auto False Echo Suppression Distance) first, then set Auto False Echo Suppression.*

### Range (Auto False Echo Suppression Distance)<sup>1</sup>: (default 1)

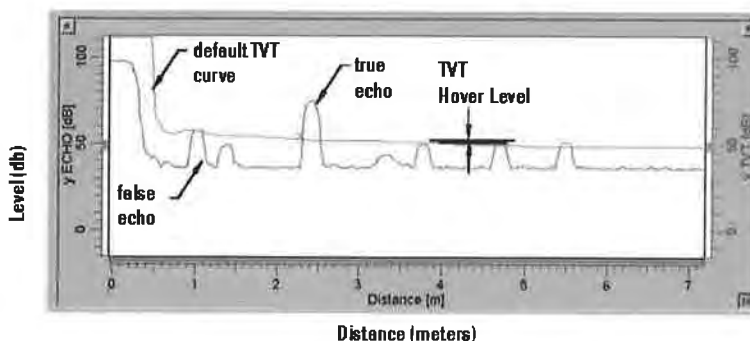
*Defines the endpoint of the Learned TVT distance.*

1. Rotate the instrument for best signal (lower false-echo amplitude).
2. Go to **Input > Detailed Setup > TVT setup > Distance**.
3. Determine the actual distance from the reference point (transducer face) to the material surface.
4. Subtract 0.5 m (20") from this distance, and enter the result.

### Set Auto False Echo Suppression

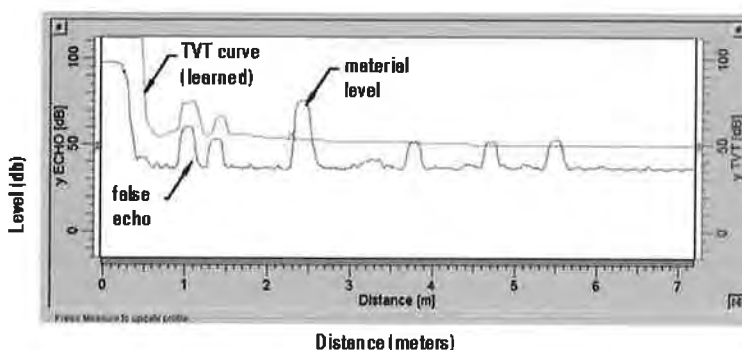
1. Open the menu **Device – Auto False Echo Suppression** and select the option to change it.
2. Select **Learn**. The device will automatically revert to **On** (Use Learned TVT) after a few seconds.

### Display before Auto False Echo Suppression



<sup>1</sup> This parameter cannot be reset to the factory default.

### Display after Auto False Echo Suppression



English

### PROFIBUS Current Consumption

**Warning:** This parameter should be modified only once at installation, to match the design criteria of the network.

*Allows you to select the PROFIBUS device current. Higher values allow faster update rates.*

Values	Loop current	Update time <sup>1</sup>
0	12 mA	6.0 s (typical), maximum 16.0 s
1	13 mA	5.0 s (typical), maximum 14.0 s
2	15 mA	3.7 s (typical), maximum 8.0 s
3	20 mA	2.4 s (typical), maximum 4.0 s

Go to **Input > Standard Setup > PROFIBUS Current Consumption**, and enter the value corresponding to the desired device current.

### Maintenance

SITRANS Probe LU requires no maintenance or cleaning.

### Unit Repair and Excluded Liability

For detailed information, please see the inside back cover.

<sup>1</sup> Temperature dependent: typical value at +20 °C (+68 °F); maximum value at +80 °C (+176 °F).

## **Instructions specific to hazardous area installations (Reference European ATEX Directive 94/9/EC, Annex II, 1/0/6)**

The following instructions apply to equipment covered by certificate number SIRA 03ATEX2142X:

1. For use and assembly, refer to the main instructions.
2. The equipment is certified for use as Category 1G equipment.
3. The equipment may be used with flammable gases and vapors with apparatus group IIC and temperature class T4.
4. The equipment is certified for use in an ambient temperature range of  $-40^{\circ}\text{C}$  to  $80^{\circ}\text{C}$ .
5. The equipment has not been assessed as a safety related device (as referred to by Directive 94/9/EC Annex II, clause 1.5).
6. Installation and inspection of this equipment shall be carried out by suitably trained personnel in accordance with the applicable code of practice (EN 60079-14 and EN 60079-17 in Europe).
7. Repair of this equipment shall be carried out by suitably trained personnel in accordance with the applicable code of practice (e.g. EN 60079-19 within Europe).
8. Components to be incorporated into or used as replacements in the equipment shall be fitted by suitably trained personnel in accordance with the manufacturer's documentation.
9. It is the responsibility of the user to ensure that manual override is possible in order to shut down the equipment and protective systems incorporated within automatic processes which deviate from the intended operating conditions, provided that this does not compromise safety.
10. The 'X' suffix to the certificate number relates to the following special conditions for safe use:
  - a. Parts of the enclosure may be non-conducting and may generate an ignition-capable level of electrostatic charge under certain extreme conditions. The user should ensure that the equipment is not installed in a location where it may be subjected to external conditions (such as high-pressure steam) which might cause a build-up of electrostatic charge on non-conducting surfaces.
  - b. As either Aluminum, Magnesium, Titanium or Zirconium may be used at the accessible surface of the equipment, in the event of rare incidents, ignition sources due to impact and friction sparks could occur. This shall be considered when the SITRANS Probe LU (PROFIBUS PA) is being installed in locations that specifically require group II, category 1G equipment.

11. The certification of this equipment relies upon the following materials used in its construction:

Aluminum alloy ANSI ref. A380.0 (aluminum enclosure option)

STYCAST<sup>1</sup> 2651-40FR encapsulant, catalyst II

The detailed composition of Aluminum A380.0 as used in the metal enclosure (threaded lid option only) is as follows:

Si – 8.5%, Fe – 1.3%, Cu – 3.5%, Mn – 0.5%, Mg – 0.1%, Ni – 0.1%, Zn – 3%,  
Sn – 0.35%, others – 0.5%, Al - balance

If the equipment is likely to come into contact with aggressive substances, then it is the responsibility of the user to take suitable precautions that prevent it from being adversely affected, thus ensuring that the type of protection is not compromised.

Aggressive substances: e.g. acidic liquids or gases that may attack metals, or solvents that may affect polymeric materials.

Suitable precautions: e.g. regular checks as part of routine inspections or establishing from the material's data sheet that it is resistant to specific chemicals.


12. **Equipment Marking:**

The equipment marking contains at least the information on the product label, shown on the inside front cover of this manual.

<sup>1</sup> STYCAST<sup>®</sup> is a registered trademark of the National Starch and Chemical Company.



**Attachment 25: SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN FOR THE LOG-HERG  
REFUELING TRUCKS**

SPCC-PLN-60-03	Revision: 0	
Effective Date: 10/12/2020	Next Review Date: 10/12/2025	

## Los Alamos National Laboratory

### Spill Prevention Control and Countermeasures Plan

#### LOG-HERG REFUELING TRUCKS & TA-60-1 HEAVY EQUIPMENT SHOP

**Hazard Grading:** ☒ Low ☐ Moderate ☐ High/Complex  
**Usage Level:** ☒ Reference ☐ UET ☐ Mixed: UET Sections: \_\_\_\_\_  
**Status:** ☐ New ☒ Major Revision ☐ Minor Revision  
☐ Review w/No Changes ☐ Other: \_\_\_\_\_  
**Safety Basis:** ☒ N/A ☐ USQ ☐ USI Number: \_\_\_\_\_

#### Document Author/Subject Matter Expert:

Name: <b>William Foley</b>	Organization: <b>EPC-CP</b>	Signature: <b>WILLIAM FOLEY</b> (Affiliate) <small>Digitally signed by WILLIAM FOLEY (Affiliate) Date: 2020.10.13 17:05:41 -06'00'</small>	Date: <b>10-13-20</b>
-------------------------------	--------------------------------	--	--------------------------

#### Derivative Classifier: ☐ Unclassified or ☐ \_\_\_\_\_

Name: <b>Steve Wolfel</b>	Organization: <b>EPC-CP</b>	Signature:	Date:
------------------------------	--------------------------------	------------	-------

#### Approval Signatures:

EPC-CP Reviewer: <b>Jacob Knight</b>	Organization: <b>EPC-CP</b>	Signature: <b>JACOB KNIGHT</b> (Affiliate) <small>Digitally signed by JACOB KNIGHT (Affiliate) Date: 2020.10.15 10:24:42 -06'00'</small>	Date: <b>10-15-20</b>
EPC-CP Program Lead: <b>Steve Pearson</b>	Organization: <b>EPC-CP</b>	Signature: <b>STEVEN PEARSON</b> (Affiliate) <small>Digitally signed by STEVEN PEARSON (Affiliate) Date: 2020.10.16 11:55:01 -06'00'</small>	Date: <b>10-15-20</b>

*This copy is uncontrolled.*

*Users are responsible for ensuring they work to the latest approved version.  
To document a required read, Login to [UTrain](#), and go to the Advanced Search.*



<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 2 of 75
	Revision: 0	Effective Date: 10/12/2020

### General Requirements Cross Reference

Final SPCC Rule	Description of Section	SPCC Section
Subpart A. Applicability, Definitions, and General Requirements for All Facilities and All Types of Oils: 40 CFR 112.1 – 7		
§ 112.7	General requirements for SPCC Plans for all facilities and all oil types.	General Requirements Cross Reference, certification and management approval pages
§112.7(a.1, 2)	Discussion of facility's conformance with rule requirements; deviations from Plan requirements.	Section 1.1. Conformance
§112.7(a.3.i, iii)	Facility characteristics that must be described in the Plan; facility diagram.	Section 2. Facility Information, Appendix B
§112.7(a.3.ii, iv, v, vi; a.4; a.5)	Spill prevention, response and reporting information in the Plan; emergency procedures.	Section 5. Spill Prevention and Control, Section 2.3.2 Refuelers and Oil Transfer Equipment/Operations, Appendix E
§ 112.7(b)	Fault analysis.	Section 4. Potential Spill Volumes and Rates
§ 112.7(c)	Secondary containment/diversionary structures.	Section 2. Facility Information, Appendix C
§ 112.7(d)	Contingency planning.	N/A
§ 112.7(e)	Inspections, tests, and records.	Section 6. Inspections, Section 7. Recordkeeping, Appendix D
§ 112.7(f)	Employee training and discharge prevention procedures.	Section 9. Training, Appendix G
§ 112.7(g)	Security (excluding oil production facilities).	Section 5.3. Security
§ 112.7(h)	Loading/unloading (excluding offshore facilities).	Section 2.3.2. Refuelers and Oil Transfer Equipment/Operations
§ 112.7(i)	Brittle fracture evaluation requirements.	N/A
§ 112.7(j)	Conformance with State requirements.	Section 1.1. Conformance
Subpart B. Requirements for Petroleum Oils and Non-Petroleum Oils, Except Animal Fats and Oils and Greases, and Fish and Marine Mammal Oils; and Vegetable Oils (including Oils from Seeds, Nuts, Fruits, and Kernels): 40 CFR 112.8 – 11		
§ 112.8	Requirements for onshore facilities (excluding production facilities).	Throughout Plan
§ 112.8(a)	General and specific requirements.	Throughout Plan
§ 112.8(b)	Facility drainage.	Section 2.2. Site Assessment/Location, Section 2.3. Description
§ 112.8(c.1)	Bulk storage containers - compatibility.	Section 2.3.1. Tanks
§ 112.8(c.2, 3)	Bulk storage containers – containment, drainage.	Section 1.1. Conformance, Section 2.3. Description
§ 112.8(c.6)	Bulk storage containers – testing.	Section 2.3.1. Tanks, Section 6 Inspections
§ 112.8(c.4, 5, 7)	Bulk storage containers – buried tanks, leakage.	N/A
§ 112.8(c. 9)	Bulk storage containers – effluent treatment.	Section 2.3.2 Refuelers and Oil Transfer Equipment/Operations, Section 6 Inspections
§ 112.8(c.8)	Bulk storage containers – installation.	Section 1.1 Conformance, Section 2.3. Description
§ 112.8(c.10, 11)	Bulk storage containers – discharges, discharge prevention.	Section 1.1. Conformance, Section 2.3. Description, Section 5. Spill Prevention and Control, Section 6. Inspections
§ 112.8(d.1)	Facility transfer operations, pumping, and facility process – buried piping.	N/A
§ 112.8(d.2)	Facility transfer operations, pumping, and facility process - connections.	Section 1.1. Conformance, Section 2.3.2. Oil

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 3 of 75
	Revision: 0	Effective Date: 10/12/2020

		Transfer Equipment/Operations
§ 112.8(d.3)	Facility transfer operations, pumping, and facility process - supports.	N/A
§ 112.8(d.4)	Facility transfer operations, pumping, and facility process - inspections.	Section 6. Inspections
§ 112.8(d.5)	Facility transfer operations, pumping, and facility process - warnings	Section 2.3. Description, Section 5.3. Security
§ 112.9, § 112.10, § 112.11	Requirements for: (1) onshore production facilities, oil drilling and workover facilities; and (2) offshore oil drilling, production, or workover facilities.	N/A
Subpart C. Requirements for Animal Fats and Oils and Greases, and Fish and Marine Mammal Oils; and for Vegetable Oils, including Oils from Seeds, Nuts, Fruits, and Kernels: 40 CFR 112.12 – 15		
§ 112.12, § 112.13, § 112.14, § 112.15	All portions	N/A

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 4 of 75
	Revision: 0	Effective Date: 10/12/2020

### CERTIFICATION

This Plan was developed pursuant to provisions of the federal regulation for oil pollution prevention, 40 CFR Part 112. Its purpose is to provide spill prevention and response measures to prevent the pollution of navigable waters from oil related spills.

In accordance with 40 CFR Part 112.3 (d), this Plan has been reviewed and certified by a Registered Professional Engineer (PE). By means of this certification, the engineer, having examined the facility or having an agent examine the facility, and being familiar with the provisions of this regulation, attests that the Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of Part 112. Procedures for required inspections and testing have been established and this Plan is adequate for the facility.

Certified by:   
William Joseph Foley  
Registered Professional Engineer  
New Mexico License No. 12703

Date: 10/13/20



<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 5 of 75
	Revision: 0	Effective Date: 10/12/2020

[BLANK PAGE]

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 6 of 75
	Revision: 0	Effective Date: 10/12/2020

### **MANAGEMENT APPROVAL**

This Plan has the full approval of management at a level with authority to commit the necessary resources. The owner/operator will fully implement this Plan in accordance with the requirements of 40 CFR Part 112.

#### **Facility Owner/Operator Approval:**

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Brian Watkins  
Logistics Division Leader  
Los Alamos National Laboratory

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 7 of 75
	Revision: 0	Effective Date: 10/12/2020

#### REVISION HISTORY

<b>Document Number and Revision</b> <i>[Include revision number, beginning with Revision 0]</i>	<b>Effective Date</b> <i>[Document Control Coordinator inserts effective date]</i>	<b>Professional Engineer Certification Required</b>	<b>Description of Changes</b> <i>[List specific changes made since the previous revision]</i>
SPCC – MSS-HERG Refueling Trucks, Rev. 0	March 2010	Yes (see file)	Initial Issue
SPCC – MSS-HERG Refueling Trucks, Rev. 1	April 2015	Yes (see file)	Plan Renewal
SPCC-PLAN-60-03, Rev 0	August 2020	Yes (see Appendix B)	Document reformat/numbering, 5-year Review/Update, Remove TA-54 refueler/four 125-gallon storage tank/one-240-gallon storage tank/four 55-gallon drums, Add seven 500-gallon storage tanks

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 8 of 75
	Revision: 0	Effective Date: 10/12/2020

## Table of Contents

Revision History.....	7
1.0 INTRODUCTION .....	10
1.1 Conformance .....	10
1.2 Scope .....	12
1.3 Plan Amendment.....	13
2.0 FACILITY INFORMATION .....	14
2.1 Name, Address, Owner, Contacts.....	14
2.2 Site Assessment/Location.....	14
2.3 Description.....	15
2.3.1 Tanks.....	15
2.3.2 Refuelers and Oil Transfer Equipment/Operations .....	25
2.3.2.1 Refuelers.....	25
2.3.2.2 Oil Transfer Equipment/Operations.....	28
2.3.3 Secondary Containment Drainage Options.....	32
3.0 SPILL HISTORY.....	33
4.0 POTENTIAL SPILL VOLUMES AND RATES.....	33
4.1 Potential Event, Volume Release, Rate of Release .....	34
4.2 Potential Spill Discharge Flow and Nearest Watercourse.....	35
5.0 SPILL PREVENTION AND CONTROL.....	35
5.1 Spill Prevention Features and Practices .....	35
5.2 Oil Spill Contingency Plan .....	37
5.3 Security.....	37
6.0 INSPECTIONS .....	38
7.0 RECORDKEEPING .....	38
8.0 MAINTENANCE INSPECTIONS.....	39
9.0 TRAINING.....	40
10.0 DEFINITIONS AND ACRONYMS.....	41
10.1 Definitions.....	41
10.2 Acronyms.....	42
11.0 REFERENCES .....	43
12.0 APPENDICES.....	43
Appendix A: Certification of the Applicability of the Substantial Harm Criteria.....	44
Appendix B: Amendment Log.....	46
Appendix C: Site Map and Photograph of Typical Stationary Equipment .....	48
Appendix D: Inspection Forms, Inspection Records, and Corrective Action Records .....	53
Appendix E: Spill Tracking History, Log, Notifications, and Spill Reports .....	60
Appendix F: Storm Water Discharge Forms.....	70
Appendix G: Training Records.....	72
Appendix H: PetroBarriers <sup>™</sup> Specification Sheet.....	74



<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 9 of 75
	Revision: 0	Effective Date: 10/12/2020

### List of Tables

Table 1. SPCC Responsibilities .....	12
Table 2. Stationary Facilities At LANL With Possible Fuel Transfer Operations Covered Under a Separate SPCC Plan .....	29
Table 3. Stationary Facilities At LANL With Possible Fuel Transfer Operations Covered Under This SPCC Plan .....	31
Table 4. On-Call Refueling Locations At LANL .....	32
Table 5. Potential for Spills at TA-60-1 HES and Refueling Trucks .....	34
Table 6. Potential Spill Discharge Flow and Nearest Watercourse .....	35
Table 7. Definition of authorities, responsibilities, and duties of all entities involved in oil removal operations .....	36
Table 8. Spill Contact Information .....	37
Table 9. Inspection Summary .....	38
Table 10. Record Location within SPCC Plan .....	38

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 10 of 75
	Revision: 0	Effective Date: 10/12/2020

## 1.0 INTRODUCTION

This Spill Prevention Control and Countermeasure (SPCC) Plan is a requirement of the Environmental Protection Agency (EPA) Oil Pollution Prevention Regulation in accordance with Title 40 of the Code of Federal Regulation Part 112 (40 CFR 112). This Plan has been revised to comply with requirements of the regulations published in August 2002 and all Amendments. 40 CFR 112.1(d)(2)(ii) requires that facilities that have an aggregate aboveground storage capacity of 1,320 gallons or greater of oil, including all containers 55 gallons or greater, maintain and implement a SPCC Plan. The intent of the SPCC Plan is to prevent oil related spills from polluting natural resources belonging to the United States (U.S.) through the implementation of adequate prevention and response measures. With regard to Los Alamos National Laboratory (LANL or Laboratory), natural resources include drainages to and/or navigable waters of the State of New Mexico (NM) and/or U.S. which include all canyons, arroyos, streams, and rivers within and surrounding LANL Technical Areas (TAs).

Due to LANL's diverse activities and changing conditions, a single Plan incorporating all LANL facilities subject to SPCC requirements is impractical. SPCC locations are addressed according to specific Facility boundaries within LANL as determined by management and funding organization. The Facility Operations Director (FOD) or the facility tenant with approval from LANL Environmental Protection and Compliance Division's Compliance Programs Group (EPC-CP), develops, implements, and maintains SPCC Plans for the specific SPCC location(s) within their stewardship.

This SPCC Plan addresses the TA-60-1 Heavy Equipment Shop (HES) and refueling trucks (Refuelers) operated by the Logistics Heavy Equipment, Roads & Grounds (LOG-HERG) division at LANL. Eight 55-gallon containers for new oil and fuel waste storage inside TA-60-1 and seven 500-gallon above ground double walled storage tanks for new/waste oils are included in this SPCC Plan revision compared with the last SPCC Plan revision. Four of the new 500-gallon above ground double walled storage tanks for new and waste oil will be brought into the HES to replace four 55-gallon containers, three 125-gallon tanks, and one 240-gallon tank during the effective period of this SPCC Plan. When the new tanks are brought into service the old tanks will be taken out of service and no longer used for oil storage. In addition, the TA-54 refueling truck included in the previous SPCC Plan is being removed. The tank has been removed from the truck and salvaged while the truck has been re-purposed as a work-truck with no refueling capacity. These changes result in a net increase to facility oil storage of 1,820 gallons compared to the previous SPCC Plan revision. Additional details related to these seven tanks are provided below in Section 2.3.1.

### 1.1 Conformance

This SPCC Plan and facility conform to the requirements of 40 CFR Part 112 to the fullest extent possible. The facility has appropriate spill prevention, reporting, and response measures, secondary containment is appropriate for the materials stored, and there is adequate security. Procedures for inspections, testing, loading and unloading, record keeping, spill response, and training have been developed. Work at this facility is performed using LANL's five step Integrated Safety Management approach, which evaluates a task and identifies potential hazards such as a spill event to achieve effective spill response training for employees. Deviations from regulatory requirements include:

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 11 of 75
	Revision: 0	Effective Date: 10/12/2020

- LOG-HERG may provide refueling services to construction vehicles and equipment located at construction sites that are regulated by 40 CFR 112 or 40 CFR 122. Such sites regulated by a SPCC Plan or Construction Storm Water Pollution Prevention Plan (SWPPP) are considered approved refueling sites based on regulatory requirements and will not be updated in this Plan. SPCC and SWPPP requirements include proper best management practices for ensuring that oil pollution prevention measures are administered during refueling activities. Facility maps and site specific pollution prevention requirements are available at the various SPCC and SWPPP regulated construction sites

Current and future activities at the facility to ensure compliance with regulatory requirements include:

- Train refueling personnel to respond to an incidental spill on an on-going basis.
- Continue utilization of the Remote Refueling Checklist form found in Appendix D.
- Train refueling personnel to identify adjacent storm drains and ditches and to choose and install temporary best management practices (BMPs) if needed.
- Perform refueling only at designated locations. If refueling must occur at an undesignated location, the location will be inspected for adjacent storm drains and ditches. Temporary BMPs will be installed if required.
- If temporary BMPs are specified for a location, fueling will not occur unless the temporary BMPs have been installed by the facility or refueler team.
- Refueling will not occur during precipitation events in areas exposed to storm water.
- Storage tanks will not be filled over 90% unless the tank is equipped with a 95% overfill prevention valve. The facility should determine the current level of fuel in the tank and request the specific amount to be delivered to not overfill their tank. It is strongly encouraged that all storage tanks be equipped with a level gage visible to refuelers. Vehicles can be filled until the dispensing nozzle shutoff is activated.
- Seven 500-gallon double walled above ground storage tanks will be brought into the HES. Three of these tanks will each store up to 500 gallons each of motor oil. Two of these tanks will each store up to 500 gallons of hydraulic oil. Two tanks will store up to 500 gallons of waste oil. Since these are double walled, the outer shell will provide secondary containment for each tank. Additional details related to these tanks are provided in Section 2.3.1 of this SPCC Plan.
- Upgrade current oil storage by removing three 125-gallon, one 240-gallon, and four 55-gallon oil storage containers from service concurrent with placing the 500-gallon above ground storage tanks into service as previously described.

In addition to Federal regulations, this Plan complies with the New Mexico Environment Department (NMED) regulations for Ground and Surface Water Protection found in the New Mexico Administrative Code (NMAC) 20.6.2. State water quality standards are considered when

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 12 of 75
	Revision: 0	Effective Date: 10/12/2020

determining procedures for secondary containment drainage. These tanks do not fall under the NMED Petroleum Storage Tank Regulations (NMAC 20.5.1-17).

The Certification of the Applicability of Substantial Harm Criteria is included in Appendix A. A self-selection process outlined in Section 112.3 of 40 CFR 112 was applied and it was determined that the facility does not fall under the “substantial harm” category. Therefore, the facility is not required to prepare and submit a Facility Response Plan.

## 1.2 Scope

The Logistics (LOG) Division within the Facilities & Operations Directorate (ALDFO) is accountable for SPCC requirements applicable to their facility and has responsibility for developing, implementing, enforcing, and maintaining the SPCC Plan requirements. The Division Leader may also delegate authority and responsibility to other members of LOG Division to ensure that the record keeping, Plan amendments, training, spill response and reporting, and inspections are properly completed and submitted to them for approval. The complete SPCC Plan with original signatures of the Division Leader is located in TA-60-1 HES or during updates will be located at the Deployed Environmental Professional (DEP) office (TA-3-1437).

<b>Table 1. SPCC Responsibilities</b>			
<i>Topic Area</i>	<i>Specific Item</i>	<i>Responsible Entity</i>	
		<i>EPC-CP</i>	<i>LOG</i>
<i>General</i>	<i>Prepare SPCC to meet regulatory requirements</i>	X	X
	<i>Approve SPCC</i>	X	
	<i>Implement SPCC</i>		X
	<i>Approve physical changes needed to implement SPCC</i>	X	
	<i>Provide oversight</i>	X	
	<i>Leak and spill cleanup and disposal, provide spill information to EPC-CP, update spill log in Plan</i>		X
	<i>Spill reporting to state and federal regulators</i>	X	X
<i>Inspections</i>	<i>Provide qualified personnel to perform and write monthly SPCC walk around inspections</i>		X
	<i>Ensure annual physical inspections of tanks are performed.</i>		X
	<i>Provide qualified personnel to perform and write annual SPCC inspections</i>	X	
	<i>Implement corrective actions noted in inspections</i>		X
<i>Recordkeeping</i>	<i>Maintain inspections in onsite SPCC</i>		X
	<i>Maintain onsite training records for periodic briefings or Lessons Learned</i>		X
	<i>Update spill tracking form</i>		X
	<i>Track discharges/spills (planned and unplanned)</i>	X	X

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 13 of 75
	Revision: 0	Effective Date: 10/12/2020

<b>Table 1. SPCC Responsibilities</b>			
<i>Topic Area</i>	<i>Specific Item</i>	<i>Responsible Entity</i>	
		<i>EPC-CP</i>	<i>LOG</i>
	<i>Review SPCC every five years</i>	X	X
<i>Training</i>	<i>Provide annual training that meets SPCC regulatory requirements</i>	X	
	<i>Provide site-specific SPCC Training (Facility Owner/Operator)</i>		X
	<i>Ensure all oil handling personnel and designated persons accountable for discharge prevention attend annual training</i>	X	X
<i>Plan Amendment</i>	<i>Provide information on changes to design, construction, operation or maintenance</i>		X
	<i>Amend Plan when spill or other change in facility occurs</i>		X
	<i>Approve physical changes needed and plan amendments to SPCC, if engineer certification is required</i>	X	
	<i>Implement changes to plan within 6 months of change to facility</i>		X

### 1.3 Plan Amendment

This SPCC Plan will be amended whenever there is a change in facility design, construction, operation or maintenance that materially affects the facility's potential for discharge of oil into or upon LANL natural resources including canyons, arroyos, streams, and rivers as described previously. The Plan will also be amended as necessary if a spill causes a change in design, construction, operation, or maintenance. Such amendments shall be fully implemented as soon as possible, but not later than six months after such change occurs. Amendments to the Plan will be recorded in the Amendment Log, Appendix B.

In addition, in accordance with 40 CFR 112.5(b), a complete review and evaluation of this SPCC Plan will be conducted at least once every five years by the operating group(s) and/or Facility Operations Director, and by EPC-CP. As a result of this review and evaluation, the SPCC Plan will be amended within six months of the review to include more effective spill prevention and control technology, if such technology will significantly reduce the likelihood of a spill event from the facility, and if such technology has been field proven at the time of review.

The last item identified as underway in Section 1.1 Conformance related to the seven new 500-gallon tanks (5 for new oil and 2 for waste oil) will need to be verified by a Professional Engineer prior to placing them into service. If all information is consistent with the information contained in this SPCC Plan related to these tanks this change will not require certification by a Professional Engineer (PE). If different tanks, even equivalent tanks, or other information requires modification related to these tanks, their locations, or contingency information differs the SPCC Plan will require certification by a PE.

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 14 of 75
	Revision: 0	Effective Date: 10/12/2020

Changes to the contact lists and the addition of records to the Plan do not require certification by a PE. All amendments that address technical changes that may change the facility's ability to discharge oil will be certified by a PE.

## **2.0 FACILITY INFORMATION**

### **2.1 Name, Address, Owner, Contacts**

The TA-60-1 HES, LOG-HERG Refuelers, and associated equipment is owned by the LANL LOG Division and operated by the LOG-HERG Group. The owner and operator for the facility are:

#### **Facility Owner/Operator**

LOG-DO Division  
Heavy Equipment, Roads & Grounds (LOG-HERG) Group  
Triad National Security LLC (Triad)  
Los Alamos National Laboratory  
Los Alamos, NM 87545

#### **Contacts**

Name	Phone	Title
Brian L. Watkins	667-0562	LOG Division Leader
Larry Velasquez	665-2644	LOG-HERG Group Leader
Chris Sena	667-5113	LOG-HERG Heavy Equipment Shop Superintendent
Dana Parrett	664-0883	LOG-HERG Superintendent
Bob Lechel	665-6912	DEP Team Leader
Jacob L. Knight	665-5880	EPC-CP DEP

### **2.2 Site Assessment/Location**

The following provides site assessment/location for both the HES and the refuelers.

- The HES sits on the Sigma Mesa fully within the Laboratory boundary and within the Sandia watershed. Drainage from the facility flows in a general easterly direction prior to leaving the mesa top and entering Sandia Canyon via a surface drainage feature on the mesa top via either a National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP) discharge location or sheet flow via surface flow within the facility. The primary Sandia Canyon drainage is located over 500 feet from the NPDES MSGP discharge location. The primary Sandia Canyon drainage eventually drains into the Rio Grande.
- All refuelers are typically parked/stored in the southeast "upper lot" area of TA-60-1 (when not being used in the field). The trucks pick up fuel offsite. The truck parking/storage area is located approximately 1000 feet from the primary Sandia

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 15 of 75
	Revision: 0	Effective Date: 10/12/2020

Canyon drainage. Drainage from this area flows in a general easterly direction prior to leaving the mesa top via a surface drainage feature on the mesa top via a storm drain fitted with an insert that filters for oil via surface flow within the facility.

## **2.3 Description**

LOG is a multidisciplinary organization whose primary mission is to provide the Laboratory with safe, reliable, and efficient infrastructure, maintenance and utilities support. LOG customers reside within 43 square miles involving approximately 1,400 building facilities. The LOG-HERG group provides heavy equipment (including refueling), and roads and grounds services throughout the Laboratory. The

TA-60-1 HES provides vehicle maintenance and repair services for LANL's heavy equipment and other General Services Administration (GSA) vehicles. Refuelers are used to refuel generators, fuel storage tanks, and vehicles around the Laboratory. A list of designated refuelers and refueling locations are included in Section 2.3.2, and in addition, some refueling may occur in undesignated or remote locations for emergency vehicles and portable emergency generators.

### **2.3.1 Tanks**

Tanks containing oil covered by this SPCC within the TA-60-1 HES are listed below. It should be noted the TA-60-1 HES is also covered under a separate MSGP SWPPP.



<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 16 of 75
	Revision: 0	Effective Date: 10/12/2020

### 525-gallon Plastic Used Oil Tank

There is a 525-gallon plastic used oil tank located in the northeast section of the building outside of the lower east bays, Photograph 1. The tank is located within a fiberglass containment unit that collects incidental spills for cleanup when oil is poured into the manway top. The secondary containment has a volume of 724 gallons (before displacement by tank itself). Drainage from this location flows to the oil/water separator just down gradient of the tank. The oil water separator discharges to the Laboratory sanitary waste water collection system. In addition, the unit is covered by a metal canopy so it will not be exposed to storm water.



**Photograph 1: 525-Gallon Used Oil Tank Located In Northeast Section of TA-60-1**

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 17 of 75
	Revision: 0	Effective Date: 10/12/2020

### 125-gallon Plastic Used Oil Tank

An enclosed 125-gallon plastic used oil tank is located in the southeast section of the building and is used by the shops in the upper south bays, Photograph 2. The oil tank sits on a “Save-A-Spill” containment pad with an approximate volume of 90 gallons. Drainage from this locations flows to the concrete surface in the yard and would be contained by shop personnel with spill kit materials. This tank will be removed from service and replaced with a new 500-gallon STI UL 142 rating double wall tank. Information related to the new tank is provided at the bottom of Section 2.3.1 in this SPCC Plan.



**Photograph 2: 125-Gallon Used Oil Tank Located In Southeast Section of TA-60-1**

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 18 of 75
	Revision: 0	Effective Date: 10/12/2020

### Poly-storage Containment Unit

There is also an enclosed, three-section poly-storage containment unit on the east side of the building just south of the lower bays, Photograph 3. This storage is used for drums containing hydraulic fluid, diesel exhaust fluid, antifreeze and washer fluid. The concrete secondary containment unit these units sit inside of is equipped with a locking drainage valve and has a volume of 120 gallons. Each enclosed section on a spill pallet has a secondary containment volume of 66 gallons. Drainage from this location flows to a trench drain and then to oil/water separator which discharges to the sanitary wastewater collection system.



**Photograph 3: Poly-storage Containment Unit Located On East Side of TA-60-1**



<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 19 of 75
	Revision: 0	Effective Date: 10/12/2020

#### Oil Storage Within Concrete Secondary Containment

There are several drums with oil and other petroleum products stored outside at the southeast corner of the building. Photograph 4. The drums are kept stored within a concrete-bermed secondary containment unit with a locking drainage valve. The secondary containment has a volume of approximately 1,150 gallons. Within the last 5 years there have been only 3 or less 55-gallon drums stored in this containment and additional drum storage is not expected. If additional oil drums are stored a maximum of 12 shall be stored within the secondary containment. Drainage from this location flows to the concrete surface just outside of the bay door where it could be contained by shop personnel. This area drains to the NPDES MSGP outfall which is fitted with a PetroBarrier™ prior to entering an existing conveyance to Sandia Canyon.



**Photograph 4: Various Oil Storage on Southeast Side of TA-60-1 Within Concrete**

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 20 of 75
	Revision: 0	Effective Date: 10/12/2020

### Bulk Oil Drums Within TA-60-1

There is one 55-gallon drum for unleaded fuel waste and one 55-gallon drum for diesel fuel waste in both the upper and lower shops for a total of four total fuel waste drums in the building. There are two 55-gallon drums with new hydraulic oil and two 55-gallon drums with motor oil in the lower shop. There is also a bulk 240-gallon motor oil tank in the upper shop, and three bulk 125-gallon tanks for motor and hydraulic oil in the lower shop that are used for servicing vehicles with new motor oil and hydraulic fluid, Photographs 5 and 6. Oil storage at the facility will be upgraded by replacing the 240-gallon, 125-gallon tanks, and all new motor oil and hydraulic oil drums with three 500-gallon tanks described in later in Section 2.3.1 of this SPCC Plan. Drainage from the locations of oil storage tanks is to existing floor drains throughout the building. These floor drains connect to the oil/water separator for the facility. The oil/water separator discharges to the sanitary wastewater collection system. Any oil accumulation (mainly from vehicle washing) is pumped and removed every 3 weeks along with all other stored waste oil. Bulk oil and drums sit on spill pallets capable of containing catastrophic releases.



**Photograph 5: 240-gallon Oil Storage Tank in TA-60-1 Upper Shop**





Photograph 6: Three 120-gallon Oil Storage Tank in TA-60-1 Lower Shop

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 22 of 75
	Revision: 0	Effective Date: 10/12/2020

### Oil Filter Crushing Operations

Oil filter crushing operations take place within the building at the lower northeast bay and upper southeast bay, Photograph 7. As filters are crushed any oil released is contained in 5 gallon buckets and transferred to the nearest used oil tank or drum. The crushed filters are placed into a drum for recycle. Drainage from oil filter crushing operations is to existing floor drains throughout the building. These floor drains connect to the oil/water separator for the facility. The oil/water separator discharges to the sanitary wastewater collection system.



**Photograph 7: Oil Filter Crushing Operations in TA-60-1**



<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 23 of 75
	Revision: 0	Effective Date: 10/12/2020

### 500-Gallon Above Ground Oil Storage Tanks

Seven 500-gallon double walled above ground storage tanks (Photographs 8 and 9) will be used in the HES. Photograph 8 shows the dispensing tanks for new product. The waste oil tanks are identical except they are not fitted with dispensing equipment. Details related to these seven tanks are as follows:

- These tanks are compatible with the contents to be stored:
  - motor oil (three tanks);
  - hydraulic oil (two tanks);
  - waste oil (two tanks).
- Tank details:
  - Double walled outer shell on each tank provide sufficient volume to contain the entire contents of each tank.
  - Listed by Southwest Research Institute (SWRI) as built in accordance with Underwriters Laboratories (UL) 142 rating (Photograph 9).
  - Each tank has a lockable fill cap with vent, a level gage
  - Dimensions: 46-in wide, 46-in tall, and 60-in long

The locations of these tanks are as follows:

- One 500-gallon waste oil tank located adjacent to southeast section of building where existing 125-gallon waste oil tank (Photograph 2) will be removed.
- One 500-gallon motor oil tank in upper shop where existing 240-gallon motor oil tank (Photograph 5) will be removed.
- One 500-gallon motor oil (Photograph 6) and one 500-gallon hydraulic oil tank in lower shop where two existing 120-gallon motor oil and one existing 120-gallon hydraulic oil tank will be removed in addition to four 55-gallon containers.
- Within the outside storage shed located east of the building, one 500-gallon motor oil, one 500-gallon hydraulic oil, and one 500-gallon waste oil tank will be installed.

There will be a net increase in oil storage of 2,320 gallons as a result of removing the four stationary tanks and four 55-gallon containers within the building as described above.

Drainage from the four tanks being placed within TA-60-1 is to existing floor drains throughout the building. These floor drains connect to the oil/water separator for the facility. The oil/water separator discharges to the sanitary wastewater collection system. Drainage from the three tanks being placed in the outside storage sheds is to the east toward the existing NPDES MSGP outfall. This outfall discharges to an existing conveyance into Sandia Canyon as described in Section 2.2 of this SPCC Plan. A Facility Diagram showing the location of these tanks is provided in Appendix C.

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 24 of 75
	Revision: 0	Effective Date: 10/12/2020



**Photograph 8: 500-Gallon Oil Tanks for Hydraulic Oil and Motor Oil Storage At TA-60-1**



**Photograph 9: 500-Gallon Oil Tanks Manufacturer Information for Hydraulic Oil, and Motor Oil Storage At TA-60-1**

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 25 of 75
	Revision: 0	Effective Date: 10/12/2020

### ***2.3.2 Refuelers and Oil Transfer Equipment/Operations***

#### ***2.3.2.1 Refuelers***

The SPCC amendments streamline requirements for mobile refuelers. Mobile refuelers are exempted from the sized secondary containment requirements. However, the general secondary containment requirements still apply. General secondary containment addresses the most likely discharge from the container and from oil transfers into and from the mobile refueler. General secondary requirements do not prescribe a size for a secondary containment structure but require that the containment system prevent the spilled oil from escaping the system prior to clean up occurring and that appropriate containment and/or diversionary structures or equipment to prevent a discharge to navigable waters or adjoining shorelines. Usage of the Remote Refueling Checklist found in Appendix D will identify the type of general secondary containment to be provided during refueling operations and to ensure that it is properly implemented.

Refuelers pick up fuel offsite. The refuelers parking/storage area is located in the southeast “upper lot” are of TA-60-1 (when not being used in the field). Currently the area drains to a storm drain insert (Photograph 10) that filters for oil. Oil absorbing PetroBarriers™ units (Appendix H) have been installed in the storm drain inlets at the southeast corner of the paved lot. The PetroBarriers™ are designed to allow to water to flow through while capturing small amounts of oil (oil sheens) from the water. They are also designed to completely stop the flow of all liquid if a release of oil or fuel were to flow into the storm drain. The following refuelers are utilized under this SPCC Plan.

All of the refuelers are in compliance with Department of Transportation (DOT) standards and maintain current certifications. The tank truck fuel levels are checked by sticking the tanks once a week, the hoses are equipped with meters to track the amount dispensed. Each truck is equipped with a spill kit. The PetroBarriers™ specification sheet can be found in Appendix H of this SPCC Plan.



**Photograph 10: TA-60-1 parking area storm drains equipped with PetroBarriers™**

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 26 of 75
	Revision: 0	Effective Date: 10/12/2020

### G82 0134S Fueling Truck

This truck, Photograph 11, has a 2,000-gallon capacity diesel dispensing tank and a 1,000-gallon gasoline dispensing tank. The dispensing hoses are equipped with automatic overfill shutoffs and a manual emergency shut off valve at the truck. This truck was previously licensed under G82-0479S but the tank was placed on a new chassis, G82-0134S, in 2018.



**Photograph 11: TA-60 G82 0134S (formerly G82 047S) Fueling Truck**

### E304640 Refueling Truck:

This truck, Photograph 12, is a Kenworth Chassis with a 4,400-gallon combined capacity Trans-Tech Tanker. It has a 2,000-gallon capacity for diesel, 1,000-gallon capacity for unleaded gasoline, 700-gallon capacity for E85, and a 700-gallon capacity B20 BIO diesel/reserve tank. The fuel dispensing hoses are equipped with automatic over-fill shutoffs and there is a manual emergency shut off valve at the truck. This truck replaced G82 01079 in 2016.



<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 27 of 75
	Revision: 0	Effective Date: 10/12/2020



**Photograph 12: TA-60 E304640 Fueling Truck (replacement for G82 01079)**

#### E29904 Fueling Truck

The 2,800-gallon truck, Photograph 13, has a 2,000-gallon E85 dispensing tank and an 800-gallon gasoline dispensing tank. The dispensing hoses are equipped with automatic overfill shutoffs and a manual emergency shut off valve at the truck.



**Photograph 13: TA-60 E29904 Fueling Truck**

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 28 of 75
	Revision: 0	Effective Date: 10/12/2020

### G82 0672D Service Truck

The service truck, Photograph 14, supplies oil, antifreeze, and grease on an on-call basis to undesignated or remote areas via onboard pumps. The truck is equipped with skid mounted tanks with reel-mounted dispensing hoses that have automatic overfill shutoffs. There are four 55-gallon polyethylene tanks and a 120 lb grease container all of which are skid mounted on the truck bed. The truck has pumps for dispensing liquids and grease through hose reels located on a fixed shelf on a lube skid that allows them to be accessed from the rear of the load-bed area.



**Photograph 14: TA-60 G82 0672D Service Truck**

### ***2.3.2.2 Oil Transfer Equipment/Operations***

There is no transfer piping associated with this plan. National Fire Protection Association (NFPA) 385 Tank vehicles for Flammable and Combustible Liquids, Section 9.2.1, states that loading and unloading of tank vehicles shall be done only in approved locations. Filling of the tank trucks is performed offsite. The Laboratory's Emergency Operations Center (EOC) tanks are fueled by an outside operator. All refueling operations completed by LOG-HERG staff across Laboratory facilities are covered under this SPCC Plan. Facility specific SPCC Plans may require additional site specific fueling procedures that must be followed. There are several facilities at the Laboratory where refueling occurs but the oil capacity is under the threshold to require a SPCC. In general, the areas where refueling operations will take place do not have dikes, oil catch basins, or a diversion system. General secondary containment requirements apply and active containment measures will be used. Specific spill prevention and containment measures for facility transfer operations are listed below, and the table shows the methods to be used at each site.

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 29 of 75
	Revision: 0	Effective Date: 10/12/2020

- The delivery system is equipped with an automatic overfill shutoff nozzle and a manual safety valve at the tank to shut off fuel flow.
- Utilize and properly follow the Remote Refueling Checklist (Appendix D).
- Refueling operations are monitored by personnel at all times and emergency spill absorbent materials are located on each truck in service for immediate use if needed.
- The refueling activity will occur in a designated area that would prevent a spill from entering a watercourse before the spill could be cleaned up. The area should be a flat gravel lot or asphalt area with temporary storm drain protection or temporary berms installed as needed. If temporary BMPs are specified for a location, fueling will not occur unless the temporary BMP has been installed by the facility or refueler team.
- If refueling must occur at an undesignated location, the location will be inspected for adjacent storm drains and ditches. Temporary BMPs will be installed if required.
- Refueling will not occur during precipitation events in areas exposed to storm water.
- Storage tanks will not be filled over 90% unless the tank is equipped with a 95% overfill prevention valve. The facility must determine the current level of fuel in the tank and request the specific amount to be delivered to not overfill their tank.
- Storage tanks should be equipped with a level gage visible to refuelers. It is recommended that tanks be equipped with failsafe devices to prevent overfilling.
- Vehicles must not be filled past the point when the dispensing nozzle shutoff is activated, i.e., tanks must not be topped off with additional fuel.
- Future improvements may include installation of sight levels on tanks.

Stationary facilities with SPCC plans must describe facility transfer operations and appropriate procedures and containment. Table 2 identifies these facilities at the Laboratory where transfer operations are covered under a different SPCC Plan than this one. Table 2 also identifies the SPCC Plan where the associated procedures can be found. Table 3 identifies stationary facilities which are covered under this SPCC Plan.

<b>Table 2. Stationary Facilities At LANL With Possible Fuel Transfer Operations Covered Under a Separate SPCC Plan</b>		
<b>Designated Fueling Locations SPCC Regulated Facilities: Stationary Equipment</b>	<b>Site Specific Filling Procedure</b>	<b>General Secondary Containment Method (for refueling area)</b>
TA-16 WETF Generator	described in facility SPCC Plan	<ul style="list-style-type: none"> <li>• Temporary berms</li> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> </ul>
TA-50 Artic Generator	described in facility SPCC Plan	<ul style="list-style-type: none"> <li>• Drain cover</li> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> </ul>



<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 30 of 75
	Revision: 0	Effective Date: 10/12/2020

**Table 2. Stationary Facilities At LANL With Possible Fuel Transfer Operations Covered Under a Separate SPCC Plan**

<b>Designated Fueling Locations SPCC Regulated Facilities: Stationary Equipment</b>	<b>Site Specific Filling Procedure</b>	<b>General Secondary Containment Method (for refueling area)</b>
TA-3 Power Plant Emergency Generator	described in facility SPCC Plan and UOI 66-20-170	<ul style="list-style-type: none"> <li>• Spill container under refueling hose and absorbent pads</li> <li>• Attended by two personnel</li> </ul>
TA-60 Emergency Generator Trailer (stored at TA-60 Electrical yard but location will change when in use)	described in facility SPCC Plan	<ul style="list-style-type: none"> <li>• If required at deployed location: temporary berms</li> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> <li>• Attended by two personnel</li> </ul>
TA-33 Generator	described in facility SPCC Plan	<ul style="list-style-type: none"> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> <li>• Attended by two personnel</li> </ul>
TA-3 SAS	described in facility SPCC Plan	<ul style="list-style-type: none"> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> <li>• Attended by two personnel</li> </ul>
TA-48-270 Generator	described in facility SPCC Plan	<ul style="list-style-type: none"> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> <li>• Attended by two personnel</li> </ul>
TA-48-271 Generator	described in facility SPCC Plan	<ul style="list-style-type: none"> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> <li>• Attended by two personnel</li> </ul>
TA-55 PF8 Generator	described in facility SPCC Plan	<ul style="list-style-type: none"> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> <li>• Attended by two personnel</li> </ul>
TA-55-362 CAS	described in facility SPCC Plan	<ul style="list-style-type: none"> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> <li>• Attended by two personnel</li> </ul>
TA-55-364 Facility Emergency Generator	described in facility SPCC Plan	<ul style="list-style-type: none"> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> <li>• Attended by two personnel</li> </ul>
TA-55 Facility Tanks in Sumps	described in facility SPCC Plan	<ul style="list-style-type: none"> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> <li>• Attended by two personnel</li> </ul>
TA-55-551 Utility Building	described in facility SPCC Plan	<ul style="list-style-type: none"> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> <li>• Attended by two personnel</li> </ul>
TA-55-583, 584, 585 RLUOB Generators	described in facility SPCC Plan	<ul style="list-style-type: none"> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> <li>• Attended by two personnel</li> </ul>
TA-55 Vehicle Refueling	described in facility SPCC Plan	<ul style="list-style-type: none"> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> <li>• Attended by two personnel</li> </ul>

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 31 of 75
	Revision: 0	Effective Date: 10/12/2020

**Table 2. Stationary Facilities At LANL With Possible Fuel Transfer Operations Covered Under a Separate SPCC Plan**

<b>Designated Fueling Locations SPCC Regulated Facilities: Stationary Equipment</b>	<b>Site Specific Filling Procedure</b>	<b>General Secondary Containment Method (for refueling area)</b>
TA-3 Power Plant Vehicle Refueling	described in this SPCC Plan	<ul style="list-style-type: none"> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> <li>• Attended by two personnel</li> </ul>
TA-53 "Orange Box" Vehicle Fueling	described in this SPCC Plan	<ul style="list-style-type: none"> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> <li>• Attended by two personnel</li> </ul>

**Table 3. Stationary Facilities At LANL With Possible Fuel Transfer Operations Covered Under This SPCC Plan**

<b>Designated Fueling Locations: Stationary Equipment</b>	<b>General Secondary Containment Method</b>
TA-3-1400 generator	<ul style="list-style-type: none"> <li>• Attended by two people</li> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> </ul>
TA-3-1498 LDCC generator	<ul style="list-style-type: none"> <li>• Attended by two people</li> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> </ul>
TA-35-88 generator	<ul style="list-style-type: none"> <li>• Attended by two people</li> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> </ul>
TA-35-27 generator	<ul style="list-style-type: none"> <li>• Attended by two people</li> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> </ul>
TA-3-40 generator	<ul style="list-style-type: none"> <li>• Attended by two people</li> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> </ul>
TA-16-218 generator	<ul style="list-style-type: none"> <li>• Attended by two people</li> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> </ul>
43-1 generator	<ul style="list-style-type: none"> <li>• Attended by two people</li> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> </ul>
59-1 generator	<ul style="list-style-type: none"> <li>• Attended by two people</li> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> </ul>
64-1 generator	<ul style="list-style-type: none"> <li>• Attended by two people</li> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> </ul>
73-1 generator	<ul style="list-style-type: none"> <li>• Attended by two people</li> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> </ul>

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 32 of 75
	Revision: 0	Effective Date: 10/12/2020

TA-33 portable generators	<ul style="list-style-type: none"> <li>• Attended by two people</li> <li>• Spill kit</li> <li>• Absorbent pads under nozzle</li> </ul>
---------------------------	--

Refueling activities will be performed only at designated locations whenever possible. If on-call refueling of snowplows, lawnmowers etc. is required, it must be done at one of the designated locations throughout the lab identified in Table 4. If refueling must occur at an undesignated location, the location will be inspected for adjacent storm drains and ditches, and the Remote Refueling Checklist (Appendix D) will be followed in addition to implementing the required temporary BMPs. Procedures are discussed in earlier in this Section.

<b>Table 4. On-Call Refueling Locations At LANL</b>	
<b>Designated Fueling Locations: Vehicles and Mobile Equipment</b>	<b>General Secondary Containment Method</b>
Heavy Equipment Shop TA-60-1	<ul style="list-style-type: none"> <li>• Attended by two people</li> <li>• Spill kit</li> </ul>
PTLA vehicle fueling TA-64	<ul style="list-style-type: none"> <li>• Attended by two people</li> <li>• Spill kit</li> </ul>
Utilities and Infrastructure Vehicles (TA-3-223, TA-46 SWSC)	<ul style="list-style-type: none"> <li>• Attended by two people</li> <li>• Spill kit</li> </ul>
TA-16 HE area	<ul style="list-style-type: none"> <li>• Attended by two people</li> <li>• Spill kit</li> </ul>
TA-54 fueling truck parking area TA-54 truck: (heavy equipment refueling area at end of Mesita del Buey road in Area G and at 54-315 access control to Area G)	<ul style="list-style-type: none"> <li>• Spill kit</li> </ul>
TA-60-250 Roads and Grounds	<ul style="list-style-type: none"> <li>• Attended by two people</li> <li>• Spill kit</li> </ul>
Unplanned locations: Emergency operations, remote well sites, etc.	<ul style="list-style-type: none"> <li>• Attended by two people</li> <li>• Spill kit</li> <li>• Temporary BMPs will be installed if location requires.</li> </ul>

### **2.3.3 Secondary Containment Drainage Options**

A description of the secondary containment provided for stationary locations is provided in Section 2.3.1. The poly-storage containment unit and the concrete secondary containment for oil storage contain drains which may be opened. These two locations are covered which minimize potential accumulation of precipitation. Precipitation which does occur within the secondary containment units is usually small and is allowed to evaporate. However, if it is necessary to drain secondary containment to ensure sufficient storage capacity valves exist. These valves must be maintained in a closed position unless the containment is being drained of standing water. If precipitation will be drained, follow the process delineated in the following paragraph.

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 33 of 75
	Revision: 0	Effective Date: 10/12/2020

Prior to any discharge, storm water accumulations must meet Federal and State water quality standards. To ensure compliance with these standards, the following steps will be used for secondary containment unit discharge operations:

- Visually inspect accumulation to ensure that the water does not possess oil sheen, odor, or other constituents that could result in a harmful discharge.
- Take a pH reading.
- Note: The pH reading must be between 6 and 9.
- Notify facility DEP prior to a discharge.
- When necessary, notify EPC-CP to obtain authorization for release and for testing of contaminants other than pH.
- After authorization is received open the valve and allow the containment to drain via gravity.
- This is a manned process and at no time should the drain valve be left unmanned while the drain valves is in the open position.
- Close drain valve when storm water has drained or if the drain valve will be left unmanned while in the unopened position.
- Complete the Liquid Discharge Form (Appendix F) with the help of the DEP. The DEP will submit a copy to EPC-CP and retain a copy with the SPCC Plan.

The remaining units either have integral secondary containment for the tanks or the building provides secondary containment.

### **3.0 SPILL HISTORY**

There have been no reportable spills at facilities covered under this SPCC Plan. There have been unreportable spills at facilities covered under this SPCC Plan. Appendix E provides this information in action to containing the current spill tracking log.

### **4.0 POTENTIAL SPILL VOLUMES AND RATES**

The following sections provide information on the potential for spill events at the facility while Section 5 provides information on the established procedures to be implemented in the event of a spill. The Operating Group Line Management is the person accountable for discharge prevention and reporting to facility management.

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 34 of 75
	Revision: 0	Effective Date: 10/12/2020

#### 4.1 Potential Event, Volume Release, Rate of Release

<b>Table 5. Potential for Spills at TA-60-1 HES and Refueling Trucks</b>			
<b>Location</b>	<b>Volume Release (gallons)</b>	<b>Type of failure (discharge scenario)</b>	<b>Secondary containment/method/capacity and response measures</b>
Poly-storage containment unit	55 gallons	Catastrophic	<ul style="list-style-type: none"> <li>Secondary containment provided in excess of 100% capacity of largest storage container.</li> <li>Spill control kits are on-site for minor spills.</li> </ul>
Oil storage within secondary containment	55 gallons	Catastrophic	<ul style="list-style-type: none"> <li>Secondary containment provided in excess of 100% capacity of largest storage container.</li> <li>Spill control kits are on-site for minor spills.</li> </ul>
525-gallon tank in northeast section of TA-60-1 outside of lower east bay	525 gallons	Catastrophic	<ul style="list-style-type: none"> <li>Secondary containment provided in excess of 100% capacity of container.</li> <li>Flows to oil water separator for oil recovery with discharge to sanitary wastewater collection system.</li> <li>Spill control kits are on-site for minor spills.</li> <li>Spill operations have personnel present which would minimize quantity of release.</li> </ul>
All oil storage within TA-60-1 including four 500-gallon tanks located within TA-60-1	500 gallons	Catastrophic	<ul style="list-style-type: none"> <li>Tanks are double walled.</li> <li>Building TA-60-1 provides secondary containment in excess of 100% capacity of volume.</li> <li>Spill control kits are on-site for minor spills.</li> <li>Spill operations have personnel present which would minimize quantity of release.</li> </ul>
Three 500-gallon tanks located in outside storage shed	500 gallons	Catastrophic	<ul style="list-style-type: none"> <li>Tanks are double walled.</li> <li>Spill control kits are on-site for minor spills.</li> <li>Flows to oil water separator for oil recovery with discharge to sanitary wastewater collection system.</li> <li>Spill operations have personnel present which would minimize quantity of release.</li> </ul>
Spill/leaks outside of containment area	55 gallons	Spill	<ul style="list-style-type: none"> <li>Spill operations have personnel present which would minimize quantity of release.</li> <li>Spill control kits are on-site and adequately stocked.</li> </ul>
Tank Trucks	2,000 gallons	Catastrophic	<ul style="list-style-type: none"> <li>PetroBarrier™ protected storm drain in truck storage area.</li> </ul>
Product Transfer Areas	5 gallons	Spill	<ul style="list-style-type: none"> <li>Oil spill contingency plan.</li> <li>Temporary berms, depends on location, see table in Section 2.4.</li> </ul>

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 35 of 75
	Revision: 0	Effective Date: 10/12/2020

## 4.2 Potential Spill Discharge Flow and Nearest Watercourse

<b>Table 6. Potential Spill Discharge Flow and Nearest Watercourse</b>		
<b>Potential Event</b>	<b>How/Where Spill Could Flow</b>	<b>Nearest Watercourse</b>
All Oil Storage in TA-60-1 HES	Oil inside facility would flow to drains that discharges to an oil/water separator which discharges to the sanitary wastewater collection system.	Sandia Canyon main drainage via surface drainage of approximately 1000 feet from storm drain outlets which are also NPDES MSGP permitted outfalls with additional controls.
All Oil Storage outside TA-60-1 HES	Oil inside facility would flow to either: (1) trench drains that discharge to an oil/water separator which discharges to the sanitary wastewater collection system or (2) sheet flow toward a NPDES MSGP permitted outfall.	Sandia Canyon main drainage via surface drainage of approximately 1000 feet from storm drain outlets which are also NPDES MSGP permitted outfalls with additional controls.
Refueling Trucks Storage Area at TA-60-1 Area	Sheet flow to a storm drain fitted with a PetroBarrier™ followed by sheet flow east towards Sandia Canyon.	Sandia Canyon main drainage via surface drainage of approximately 1000 feet from storm drain outlets which are also NPDES MSGP permitted outfalls with additional controls.
Product Transfer Areas	Spills during refueling operations / spills	Multiple dependent upon location, refer to Appendix E.

## 5.0 SPILL PREVENTION AND CONTROL

### 5.1 Spill Prevention Features and Practices

Work at this facility is performed using LANL's five step Integrated Safety Management approach, which evaluates a task and identifies potential hazards such as a spill event to achieve effective spill response training for employees. Personnel involved with facility operations are instructed on safety precautions, initial spill response procedures, and how to use available spill cleanup material. The DEP for the facility is the designated person responsible for spill prevention, reporting and maintenance of the spill control equipment at the Facility. EPC-CP is responsible for providing available training programs. In addition to annual training, periodic spill prevention briefings may be conducted as necessary to inform operating personnel about spill events or failures, malfunctioning components, recently developed precautionary measures, or other SPCC-related issues.

- *Additional procedures for early detection and timely notification of an oil discharge* - Two personnel are present to monitor the refueling operations. The parking area is visited daily on work days. Notifications will occur as identified in Table 5.

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 36 of 75
	Revision: 0	Effective Date: 10/12/2020

**Spill Control Equipment:** Each oil storage areas within TA-60-1 has a spill kit in close proximity to the storage area. Each of the refuelers is equipped with a spill kit which is present during all refueling operations and when the truck is not in used and parked in the areas identified in this SPCC Plan. Spill kits that contains adequate universal sorbent or spill control pillows to handle minor spills and remove any oil or sheen from storm water collected in the secondary containments, as appropriate. Each spill kit also contains goggles, gloves, bags, ties, scoop and labels and shovels. Spill control material storage areas shall be inventoried regularly to assure that the proper materials are available in sufficient quantity and of sufficient quality to minimize the spread of oil products in the case of a spill prior to the arrival of response teams.

**Spill Reporting:** Spill reporting is accomplished through SPCC Plan documentation, Emergency Management Division-Emergency Response (EMD-ER) notification, and EPC-CP procedures. EPC-CP will complete required state, and federal reporting, including federal reporting of spills in excess of 1,000 gallons or two combined spills greater than 42 gallons in 12 months in accordance with Laboratory and Department of Energy (DOE) policies and federal and state regulatory reporting requirements per P322-3, *Performance Improvement from Abnormal Events*.

<https://int.lanl.gov/policy/documents/P322-3.pdf>.

<b>Table 7. Definition of authorities, responsibilities, and duties of all entities involved in oil removal operations</b>		
<b>Authorities</b>	<b>Spill Reporting Responsibilities</b>	<b>Response Duties</b>
Onsite workers	<u>Contact EMD-ER at 667-2400 (non-emergencies) or 911 (emergencies)</u> , if necessary. Notify DEP. If spill occurs after hours or on a weekend, please call the Spill Pager (664-7722) and EPC-CP on-call staff will respond	Qualified workers may, but are not required to, clean up simple/small spills
Facility Spill Team	Notify DEP	Qualified workers may clean up simple/small spills and manage waste per LANL procedures above.
EMD-ER	If EMD-ER is notified of a spill event, they will contact all additional applicable parties including EPC-CP	Respond per contingency plan
DEP	Complete appropriate forms, notify EPC-CP, and document spill in SPCC Plan in accordance with Section 1.3.2	For small spills, contact the appropriate Waste Generator and Waste Management Coordinator for disposal.
EPC-CP Water Quality	Completion of spill reports that are reportable to federal and state agencies. Provide oversight for spill mitigation activities.	Provide information to federal and state agencies.



<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 37 of 75
	Revision: 0	Effective Date: 10/12/2020

## 5.2 Oil Spill Contingency Plan

All spills require response. Any spills that have the potential to enter a drain or water course, require immediate response and must be reported immediately to LANL EMD-ER office and EPC-CP.

Small incidental releases (e.g., vehicle oil, grease, fuel drip spots) and spills into the secondary containment will be addressed as part of good housekeeping and be cleaned up and properly disposed as soon as possible (usually on the day the spill was discovered). The cleanup will be conducted by properly trained personnel. It is the responsibility of the FOD to provide access to an appropriate Waste Generator and Waste Management Coordinator who is properly trained to dispose of spill materials.

All other spills will be reported to the Principal Facility Operator who will notify the Facility Manager, who then notifies the Utilities Operations Manager. The Operations Manager is responsible for notifying LANL EMD-ER and the FOD. If neither manager is available the principal operator will notify EMD-ER directly. The principal operator will address, if no health hazards exists, the cause of the spill and contain as much of the spill as possible until the EMD-ER team arrives.

The EMD-ER will determine to what level LANL's EMD-ER plan will be activated. In addition, appropriate cleanup procedures will be followed and the appropriate individuals or organizations responsible for the completion of appropriate spill reports will be notified.

**Table 8. Spill Contact Information**

**If fire or explosion is present, or if the potential for such exists, the situation must be reported by dialing 911 or activating a fire pull box if available at the facility.**

**LANL 24- hr. Emergency Operations Support Center (EOSC) Number: 667-2400.**

Name	Title	Work	Pager	Cell
Andrew Erickson	FOD, Utilities & Infrastructure – Division Office	665-0106	664-5913	695-4122
Brian Watkins	LOG Division Leader	667-0562	664-5921	412-7882
Larry Velasquez	LOG-HERG Group Leader	665-2644		695-6949
Chris Sena	LOG-HERG Heavy Equipment Shop Superintendent	667-5113		551-4803
Robert Lechel	DSESH-EPC-CP Team Lead	665-6912	664-4383	699-7558
EM&R	24 hour emergency contact	667-2400		
Jacob Knight	DEP	665-5880		257-8985

## 5.3 Security

TA-60-1 HES, TA-60-1 truck storage areas, and TA-54 are presently access-controlled areas. These areas are fenced and have gates, which are locked when the facility is unattended after 5 PM

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 38 of 75
	Revision: 0	Effective Date: 10/12/2020

weekdays and on weekends. Lighting at the facility is adequate to detect potential night spills and to deter vandals.

## 6.0 INSPECTIONS

Inspections include monthly inspections, annual SPCC walk around inspections, and certified inspections. Procedures for each are detailed below. Records of each are kept in accordance with Section 7.0, Record Keeping. In the event of a problem, the deficiency is documented on the applicable inspection form and corrective action will be taken. Any identified leaks or problems associated with the system will be promptly corrected, and any oil accumulations will be removed.

<b>Table 9. Inspection Summary</b>		
<b>Type</b>	<b>Frequency</b>	<b>Inspector</b>
Periodic Inspections	Monthly	DEP
Annual SPCC	Annual	EPC-CP
Certified - DOT	Annual	Outside Contractor
Brittle Failure	Not applicable	N/A

Various inspections are conducted at the units. These inspections include a daily inspection (checklist 41-20-001.1 R0) performed by the principal operator, monthly walk-around inspection by the DEP and an annual EPC-CP SPCC inspection. Records of each inspection are kept as described in Section 7.0 (Record Keeping) or in another appropriate folder or box. Completed Inspection Reports are filed as part of this SPCC Plan in Appendix D. Monthly and refueling operations inspection checklists are kept in a separate binder. A sample of the monthly and refueling operations inspection checklists are included in Appendix D. All of this information is kept in the Principal Operator's trailer located at the facility.

In the event that a problem or concern is identified during an inspection or checklist walk-around, the inspector documents the deficiency or concern on the applicable form. All corrective actions should be planned, implemented and documented. The FOD or his representative would be directly involved with implementing these corrective actions. A record of the Corrective Actions will be kept in Appendix D. All identified leaks or problems associated with the units will be promptly corrected, and any oil accumulations will be removed. Records of these types of problems will be kept on file as part of the SPCC plan according to Section 3.0 (Spill History, and recorded in the spill log in Appendix E).

## 7.0 RECORDKEEPING

<b>Table 10. Record Location within SPCC Plan</b>	
<b>Record Type</b>	<b>Location in SPCC Plan</b>

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 39 of 75
	Revision: 0	Effective Date: 10/12/2020

Certification of the Applicability of the Substantial Harm Criteria	Appendix A
Amendment Log	Appendix B
Inspections (Daily, Monthly, Annual, and State)	Appendix D
Corrective Actions Records	Appendix D
Spill Reports/Spill Tracking Form	Appendix E
Storm Water Discharge	Appendix F
Training Records	Appendix G

These inspection reports identify the date the inspection was performed, facility structural conditions, identified deficiencies; and contain the signature of the inspector.

In the event of a spill, the spill tracking form in Appendix E will be used to describe the spill, corrective action taken, and plans for preventing recurrence. Filled out forms are also maintained in Appendix E. Any discharge of storm water from any of the secondary containment units will be identified through completion of the form in Appendix F. A copy of the completed form will also be sent to EPC-CP and also maintained in Appendix F.

As required by 40 CFR 112.3(e), the SPCC Plan is to be maintained at the facility since the facility is manned at least 4 hours a day. Additionally, inspection procedures, signed inspections, drainage records, and spill reports will be retained as part of this SPCC Plan at the facility for a minimum period of three years. Following completion of the three-year period, the records will be forwarded to the EPC-CP Records Management Team to be retained in accordance with DOE requirements.

## 8.0 MAINTENANCE INSPECTIONS

**Daily Inspection (Good Housekeeping) Walk-Around Checklist:** Per DOT requirements the tanker trucks are inspected daily while in operation. Records are kept with the vehicles.

**Monthly Visual Inspection:** A monthly walk-around inspection of the facility will be performed by a DEP and a facility representative. The inspection form and inspection reports are filed in Appendix D. The inspection form identifies the inspector, inspection date, and identifies facility areas inspected. As part of these inspections, the tanks and refuelers (including tanker attachments and appurtenances) are visually inspected for leaks and for physical condition, including but not limited to rust, corrosion, or bulging. The secondary containment area(s) are inspected to determine if any leaks or spills have occurred, to ensure that the containment is free of storm water, to ensure that there are no physical defects in the containment that could cause it to fail, and to ensure that the containment drain valve is in good condition and locked. Leaks or potential problems will be brought to the attention of the Principal Operator and steps to address these problems through corrective action will be discussed. The inspector will sign the inspection form and place it in Appendix D in a timely manner. The monthly inspection form will be modified if changes in the SPCC regulations are not reflected in the current version.

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 40 of 75
	Revision: 0	Effective Date: 10/12/2020

**Annual Inspections:** EPC-CP staff performs annual SPCC inspections to assess compliance with all aspects of the SPCC Plan including but not limited to recordkeeping, changes to the facility, the condition of the refuelers, storage containers, piping and associated equipment, and the secondary containment unit. This inspection also covers all requirements of the SPCC regulations. An inspection report is sent to the appropriate facility FOD and representatives in a timely manner. Completed annual inspection reports are maintained in Appendix D.

**Certified Inspections:** The tanker trucks are inspected annually per DOT requirements. All of the other storage tanks and portable containers that are part of this plan are less than 1100 gallons and per STI SP001 only require a periodic inspection as described above

**Integrity, Brittle Failure and Catastrophe Inspections:** Regulations require an evaluation for risk of discharge or failure due to brittle fracture or other catastrophe for field constructed ASTs that undergo a repair, alteration, reconstruction, or a change in service that might affect the risk of a discharge or failure. There are no field constructed oil storage ASTs at this facility. This evaluation does not apply

## 9.0 TRAINING

40 CFR Part 112.7 (f) (1) states, "Train your oil-handling personnel in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the facility SPCC Plan."

Oil handling personnel and personnel that will have SPCC training at this facility include the:

- DEPs,
- Resource Manager,
- Principle Operator, and
- Personnel who conduct re-filling operations.

Required trainings include:

- An online training program (Course: #30441) has been developed that covers spill procedure protocols; applicable pollution control laws, rules, and regulations; and lessons learned - information on known spill events or failures, SPCC Plan elements, and spill response procedures. This self-study course is required at least once yearly for oil-handling personnel at this facility.
- Oil-handling personnel at this facility shall review this SPCC Plan annually and documentation of the training maintained in Appendix G of this SPCC Plan. Additional spill prevention briefings and information on known spill events or failures, malfunctioning equipment, and recently developed precautionary measures is provided to oil handling personnel through a request to EPC-CP or through periodic facility briefings on small spills.
- Site specific training is completed by required reading of this SPCC Plan and is documented in Appendix G.

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 41 of 75
	Revision: 0	Effective Date: 10/12/2020

In addition to the above training, spill response personnel at LANL receive HAZWOPER training that covers spill prevention, control, and cleanup procedures.

The FOD or their representative(s) is responsible for ensuring that oil-handling personnel are properly instructed in the operation and maintenance of equipment at this facility to prevent the discharge of oil. Employee training programs must instill in oil-handling personnel, at all levels of responsibility, a complete understanding of the following:

- Contents of facility SPCC Plan
- General facility operations and maintenance of equipment
- The SPCC program
- Procedures for operator observation inspections
- Site safety hazards
- Practices for preventing spills
- Procedures for responding properly and rapidly to spills
- Protocol used to report spills
- Spill events or failures, malfunctioning components, and recently developed precautionary measures
- Additional applicable pollution control laws, rules, and regulations

Prior to the initiation of work, oil-handling personnel also receive LANL Hazard Communications (HAZCOM) training which covers spill prevention, control, and cleanup methods. Additional spill prevention briefings and information on known spill events or failures, malfunctioning equipment, and recently developed precautionary measures is provided to oil handling personnel through the Operating Experience OPEX/Lessons Learned Program, including PD323, LANL Operating Experience Program and P323-1, Operating Experience and Lessons Learned Process (<http://int.lanl.gov/org/ddops/aladeshqss/quality-performance-assurance/performance-assurance/opex.shtml>), or through periodic facility briefings on small spills. Lessons learned for oil spills will follow the normal lessons learned process for UI.

## 10.0 DEFINITIONS AND ACRONYMS

### 10.1 Definitions

See LANL [Definition of Terms](#).

**“Active” Secondary Containment:** Secondary containment features that require deployment or other specific action by the owner/operator (e.g., portable barrier, spill kit, spill response team, a valve that must be closed).

**Oil:** *Oil* of any kind or in any form, including, but not limited to: fats, oils, or greases of animal, fish, or marine mammal origin; vegetable oils, including oils from seeds, nuts, fruits, or kernels; and,

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 42 of 75
	Revision: 0	Effective Date: 10/12/2020

other oils and greases, including petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse, or oil mixed with wastes other than dredged spoil.

**Oil-Filled Operational Equipment:** Equipment that includes an oil storage container (or multiple containers) in which the oil is present solely to support the function of the apparatus or the device. Oil-filled operational equipment is not considered a bulk storage container, and does not include oil-filled manufacturing equipment (flow-through process). Examples of oil-filled operational equipment include, but are not limited to, hydraulic systems, lubricating systems (*e.g.*, those for pumps, compressors and other rotating equipment, including pump jack lubrication systems), gear boxes, machining coolant systems, heat transfer systems, transformers, circuit breakers, electrical switches, and other systems containing oil solely to enable the operation of the device.

**“Passive” Secondary Containment:** Permanent installations that do not require deployment or action or the owner/operator (*e.g.*, vault, containment structure, dike)

**Spill Prevention, Control, and Countermeasure Plan:** The document required by 40 CFR 112.3 that details the equipment, workforce, procedures, and steps to prevent, control, and provide adequate countermeasures to a discharge.

**Sufficiently Impervious:** 40 CFR 112.7(c) states that the entire secondary containment system, “including walls and floor, must be capable of containing oil and must be constructed so that any discharge from a primary containment system will not escape containment before cleanup occurs.”

## 10.2 Acronyms

See LANL [Acronym Master List](#).

ALDFO	Facilities & Operations Directorate
BMP	Best Management Practice
CFR	Code of Federal Regulations
DEP	Deployed Environmental Professional
DOE	Department of Energy
DOT	Department of Transportation
EMD-ER	Emergency Management Division-Emergency Response
EOC	Emergency Operations Support Center
EPA	Environmental Protection Agency
EPC-CP	Environmental Protection and Compliance-Compliance Programs Group
FOD	Facility Operations Director
GSA	General Services Administration
HAZCOM	Hazard Communications
HES	Heavy Equipment Shop
LANL or the Laboratory	Los Alamos National Laboratory
LOG	Logistics Division

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 43 of 75
	Revision: 0	Effective Date: 10/12/2020

LOG-HERG	Logistics Operations-Heavy Equipment/Roads & Grounds Group
MSGP	Multi-Sector General Permit
NFPA	National Fire Protection Association
NM	New Mexico
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NPDES	National Pollutant Discharge Elimination System
PE	Professional Engineer
Refuelers	Refueling Trucks
SPCC	Spill Prevention Control and Countermeasures
SWPPP	Construction Storm Water Pollution Prevention Plan
SWRI	Southwest Research Institute
TA	Technical Area
Triad	Triad National Security, LLC
UL	Underwriters Laboratories
U.S.	United States

## 11.0 REFERENCES

- 40 CFR 112
- 20.5 NMAC

## 12.0 APPENDICES

**Appendix A:** Certification of the Applicability of the Substantial Harm Criteria

**Appendix B:** Amendment Log

**Appendix C:** Site Map and Photograph of Typical Stationary Equipment

**Appendix D:** Inspection Forms, Inspection Records, and Corrective Action Records

**Appendix E:** Spill Tracking Log, Notifications, and Spill Reports

**Appendix F:** Storm Water Discharge Forms

**Appendix G:** Training Records

**Appendix H:** PetroBarriers <sup>™</sup> Specification Sheet



<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 44 of 75
	Revision: 0	Effective Date: 10/12/2020

## Appendix A: Certification of the Applicability of the Substantial Harm Criteria

### CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

**Facility Name:** TA-60-1 Heavy Equipment Shop, LOG-HERG Refueling Facility and MSS-EWMO TA-54 Refueling Truck  
**Facility Address:** TA-60 and TA-54, LANL, Los Alamos, NM

Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

Yes \_\_\_\_\_ No **X**

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?

Yes \_\_\_\_\_ No **X**

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in accordance with EPA 40 CFR 112, App. C) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?

For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" and the applicable Area Contingency Plan.

Yes \_\_\_\_\_ No **X**

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in accordance with EPA 40 CFR 112, App. C) such that a discharge from the facility would shut down a public drinking water intake?

Yes \_\_\_\_\_ No **X**

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a re-portable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?

Yes \_\_\_\_\_ No **X**

### CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Brian Watkins  
Name (please type or print)

Logistics Division Leader  
Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 45 of 75
	Revision: 0	Effective Date: 10/12/2020

This Page Intentionally Left Blank

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 46 of 75
	Revision: 0	Effective Date: 10/12/2020

## Appendix B: Amendment Log

### SPILL PREVENTION CONTROL AND COUNTERMEASURE

#### PLAN REVIEW PAGE

I have completed review and evaluation of the SPCC Plan and will or will not amend the plan as indicated below.

<b>Review Dates</b>	<b>Signature</b>	<b>Name</b>	<b>Title</b>	<b>Amendment &amp; Stamped (yes/no)</b>
March 2010	(See File)	Terrill Lemke	Registered Professional Year	Yes & Yes
April 2015	(See File)	Albert Dye	SPCC Coordinator, ENV-CP	Yes & Yes
September 2020		Steve Pearson	SPCC Coordinator, ENV-CP	Yes & Yes

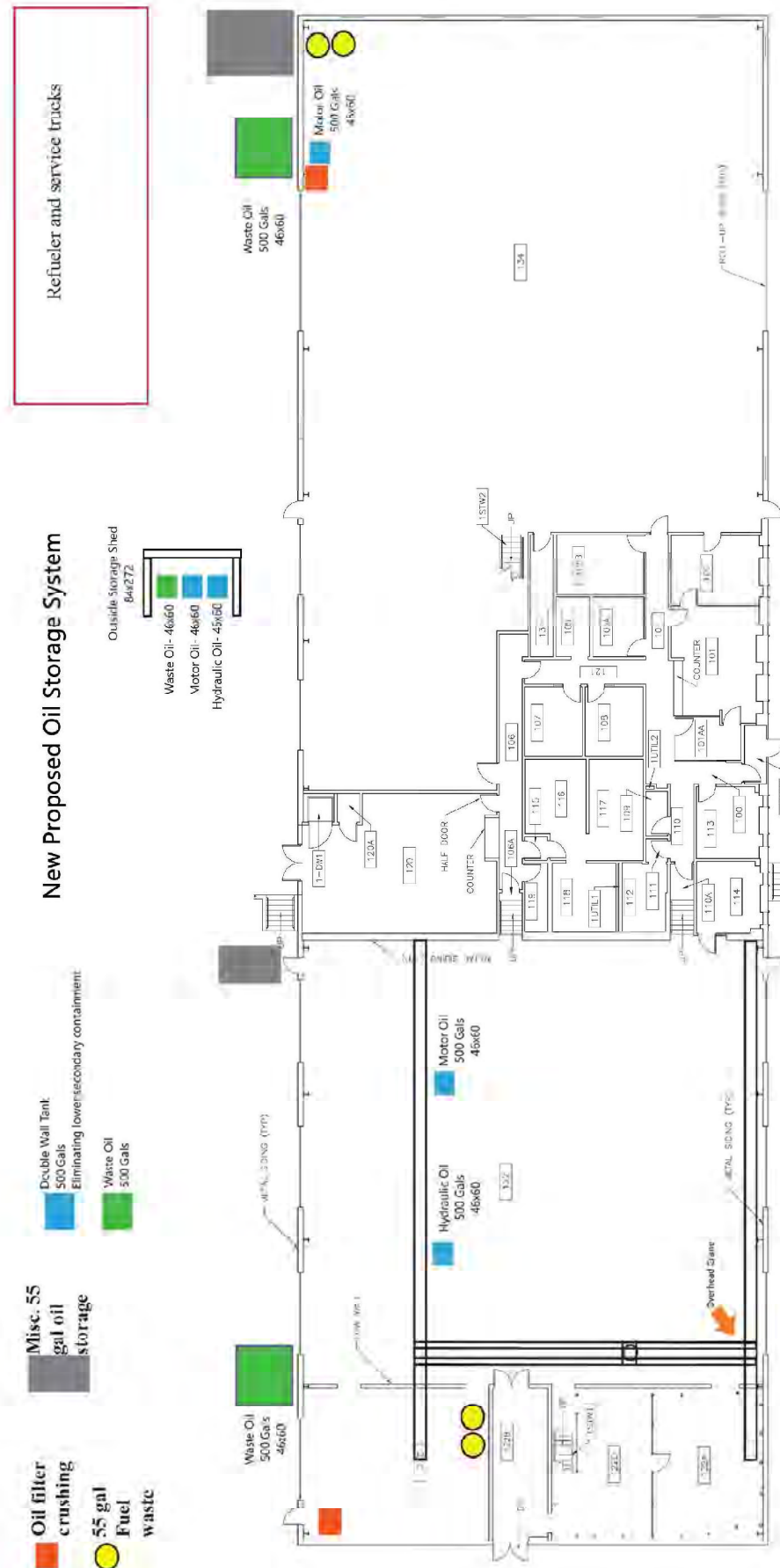
In accordance with 40 CFR 112.5(b), a review and evaluation of this SPCC Plan is conducted at least once every five years. As a result of this review and evaluation, the SPCC Plan will be amended within six months of the review to include more effective prevention and control technology if: (1) such technology will significantly reduce the likelihood of a spill event from the facility, and (2) if such technology has been field proven at the time of review. Any amendment to the SPCC Plan shall be certified by a Professional Engineer within six months after a change in the facility design, construction, operation, or maintenance occurs which materially affects the facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines. Non-technical amendments do not need to be certified by a Professional Engineer.

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 47 of 75
	Revision: 0	Effective Date: 10/12/2020

Date	Plan Section	Reason for Amendment	Amendment	PE Certification needed?
March 2010	All	Initial Issuance		Yes
April 2015	All	5-Year Review	Update of SPCC Plan for changes to covered vehicles, fueling locations, storage site BMPs, and organizational changes	Yes
May 2017	All	Additional oil storage at TA-60-1 HES	Updated fueling truck information and oil storage for TA-60-1 HES. Updated facility contact information. Updated inspection checklists. Updated spill report information. Updated facility map.	Yes
October 2020	All	5-Year Review, Additional new oil storage at TA-60-1 HES	Updated document format and oil storage information for planned changes to stationary storage, and completed changes to refuelers, including removing TA-54 refueler.	Yes

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 48 of 75
	Revision: 0	Effective Date: 10/12/2020

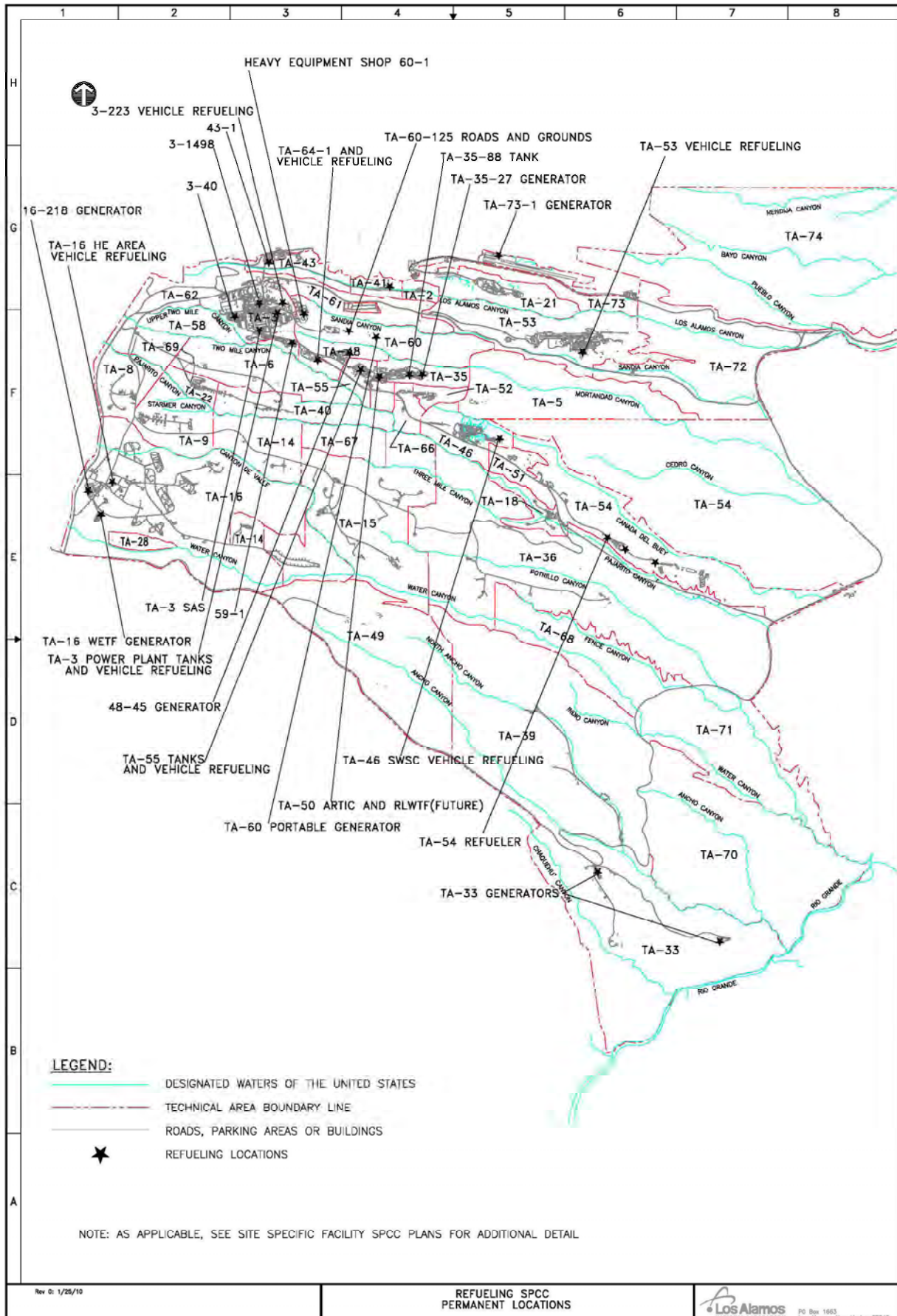
### Appendix C: Site Map and Photograph of Typical Stationary Equipment





**TA-60-1 HES & Refueling Truck Parking Area**







**Typical Emergency Generator where refueling operations take place (TA-48-1)**

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 53 of 75
	Revision: 0	Effective Date: 10/12/2020

**Appendix D: Inspection Forms, Inspection Records, and Corrective Action Records**

**Blank Monthly Inspection Forms**  
**Blank Annual SPCC Inspection Form**  
**Results of Annual Tests by Others Form**  
**Remote Refueling Checklist**

**Copies of Monthly Inspection Forms, Annual Inspection Reports, and DOT Tanker Inspection  
Certifications for All Tanker Trucks**

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 54 of 75
	Revision: 0	Effective Date: 10/12/2020

## AST Periodic Inspection Checklist – Refuelers/TA-60-1 Heavy Equipment Shop

Note any leaks, deficiencies, or changes. Repair any deficiencies found. If the tank or secondary containment has a leak, remove tank from service within 24 hours.

**Frequency: Monthly**

<b>Date:</b>	<b>Inspector:</b>	
<b>Item Inspected:</b>	<b>Corrective Action Needed</b>	<b>Comments</b>
G82 0134S (Fueling Truck)		
E304640 (Fueling Truck)		
E29904 (Fueling Truck)		
G82 0672D (Service Truck)		
Outdoor Drum Storage in Secondary Containment Unit (SE Corner)		
Used Oil Tank 125 Gal (SE)		
Poly Storage Containment Unit and Drums		
Used Oil Tank 525 Gal (NE)		
Indoor drum/tanks, oil filter crushing		
Storm Drains with PetroBarriers		
Trench Drain to Oil-Water-Separator		

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 55 of 75
	Revision: 0	Effective Date: 10/12/2020

## REFUELING ANNUAL SPCC WALK-AROUND INSPECTION FORM

Inspection Date: \_\_\_\_\_ Certified Inspector: \_\_\_\_\_

Others Present: \_\_\_\_\_

General Information	Status	Comments
Last SPCC review/revision date		
Any changes to facility that impact ability to discharge oil? (new or removed tanks, oil filled equipment, or drums; changes to procedures):		
SPCC Records maintained?		
Training complete?		
Spill Control equipment		
Refueling areas (signs of spills, BMPs available for temporary drainage control)		
Security (lighting, fencing)		

Tanker Trucks	Status	Comments
Tank Shell and Coating Condition		
Piping, Pumps, Flanges, Valves, Vents, dispensers Condition		
General Condition of Containment Unit:		
Housekeeping		
Other Issues		

## Results of annual certification tests

G82 0134S DOT Certified Date:\_\_\_\_\_

G82 0672D DOT Certified Date:\_\_\_\_\_

E29904 DOT Certified Date:\_\_\_\_\_

E304640 DOT Certified Date:\_\_\_\_\_

Recycle Oil Tanks	Status	Comments
Tank Shell and Coating Condition		
Piping, Pumps, Flanges, Valves, Vents Condition		
General Condition of Containment Unit:		
Housekeeping		
Other Issues		

Portable Container Storage Areas	Status	Comments
Spill Control equipment		
Housekeeping		
Security (lighting, fencing)		
Area drainage		
Condition of secondary containment (discharge valve closed (if any), accumulated water, etc)		
Condition of containers and containments (dents, bulging, leaks, etc.)		



<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 58 of 75
	Revision: 0	Effective Date: 10/12/2020

Items Requiring Corrective Actions: \_\_\_\_\_  
\_\_\_\_\_

Corrective actions taken (give dates): \_\_\_\_\_  
\_\_\_\_\_

Other Comments: \_\_\_\_\_  
\_\_\_\_\_

Inspector's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Owner/Operator signature: \_\_\_\_\_ Date: \_\_\_\_\_

LOG-HERG Refueling Trucks & TA-60-1 Heavy Equipment Shop	No: SPCC-PLN-60-03	Page 59 of 75
	Revision: 0	Effective Date: 10/12/2020

## Los Alamos National Laboratory LOG-HERG Refueling Trucks SPCC Plan Remote Refueling Checklist

### **Overview:**

Pursuant to 40 CFR 112 of the Oil Pollution Prevention Regulations and this SPCC Plan, the check list of questions below must be fully evaluated to determine if the site is acceptable for refueling of construction equipment and off-road construction vehicles.

### **References:**

The information in this document is based on and in compliance with the Technical Standards and Safety Act, 2000 and the Technical Standards and Safety Authority's (TSSA) Liquid Fuels Handling Code, 2007.

### **Refueling Criteria:**

Dispensing of fuel shall not take place within

- 1) a building;
- 2) during a precipitation event (heavy raining, snowing, etc.);
- 3) within 90 feet of access to a storm drain, arroyo, drainage channel, or watercourse;
- 4) 5 feet from any opening in a building; or
- 5) 9 feet from any source of ignition.

BMP's for Refueling:

- 1) Perform regular preventative maintenance on tanks and fuel lines
- 2) Use dry cleanup methods for the fueling area as opposed to hosing it down; use dry sweeping compounds.
- 3) **Avoid topping** off fuel tanks in receiving equipment, which may cause spills by overfilling
- 4) Refuel in areas of impervious pavements. This allows for spill cleanup using dry absorbent materials before precipitation can wash spills away.
- 5) Use drip pan under hose and dispensing nozzle.
- 6) Use fueling hoses with check valves to prevent hose drainage.
- 7) Train personnel on remote fueling BMP's

The fueling truck is equipped with spill control equipment to address potential spills from fueling activities:      Yes ☐ No ☐

If the refueling activity does not meet all of the items and spill control equipment is not available on the refueling vehicle, contact EPC-CP at (667-0666) to assess alternative and/or additional BMP requirements.

I certify that the above information is correct to the best of my knowledge:

\_\_\_\_\_  
Fueller's Signature

\_\_\_\_\_  
Date:

LOG-HERG Refueling Trucks & TA-60-1 Heavy Equipment Shop	No: SPCC-PLN-60-03	Page 60 of 75
	Revision: 0	Effective Date: 10/12/2020

Appendix E: Spill Tracking History, Log, Notifications, and Spill Reports

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 61 of 75
	Revision: 0	Effective Date: 10/12/2020

Spill History all reportable releases during history of facilities under this SPCC Plan				
Location Description (Date)	Type and Amount	Cause/Description of Damage/Corrective Action Taken	Watercourse Affected	Action Taken to Prevent Recurrence
Outside TA-54 ops center (4/1/11)	Diesel 1 Pint	Diesel fuel spilled from fuel tank overflow. Absorbent pads applied immediately.	No	Review preventative measures with personnel (caution workers not to overflow tanks on fuel tank). Operational area transferred to EM-LA Contractor in 2018.
TA-54 Across from Muster Station 3 (6/13/11)	Diesel ~2 gallons	Spill occurred during refueling due to an open valve on fuel truck. Absorbent pads were used to remediate.	No	Review preventative measures with personnel (perform valve check before refueling).
TA-54 Admin Equipment Yard (7/12/12)	Gasoline ~ 1 gallon	Discharge from a loose fitting on a fuel truck in the administration equipment yard. The impacted soil was removed and micro-blaze absorbent was applied to the area	No	Review preventative measures with personnel (ensure drip pans placed under fuel truck while refueling). Operational area transferred to EM-LA Contractor in 2018.
TA-54 Laydown Yard (12/10/12)	Fuel 16 oz	Spill occurred during refueling of the TA-54 Tanker Truck. Spill was cleaned up and waste was properly disposed of.	No	Operational area transferred to EM-LA Contractor in 2018.
TA-60-1 (8/30/13)	Unleaded Gasoline 1.5 gallons	Overflow of tanker truck refueling truck G82-0414A (now G82 0134S) parked on incline. Absorbent applied and the area was sprayed with several applications of micro-blaze.	No	Review preventative measures with personnel. Vehicle decommissioned in 2016 and replaced with G82 0134S Refueler.
North of TA-54-0002 (9/23/13)	Gasoline < .5 gallon	Microvan was overfilled during refueling activities. The vehicle was pushed to level ground to stop spill. The impacted soil was removed.	No	Review preventative measures with personnel.
Area G Refueling Area (3/19/14)	Diesel 2 gallons	Operator spilled fuel onto asphalt while fueling vehicle. Fuel was absorbed with pads, pigs, and absorbent the same day. Area sprayed with micro-blaze.	No	Review preventative measures with personnel.
TA-60-1 (10/28/14)	Diesel <1 quart	Spill occurred during replacement of dispenser nozzle and subsequent leakage of residual from hose on G82-01414A. Absorbent applied and the area sprayed with micro-blaze.	No	Vehicle maintenance/review preventative measures with personnel. Vehicle decommissioned in 2016 and replaced with G82 0134S Refueler.
SIMR-2 Well Site (6/24/15)	Diesel <0.5 gallon	Spill occurred during refueling operations. Approximately 3 gallons of petroleum contaminated soil was cleaned-up and taken away for proper disposal.	No	Review preventative measures with personnel. Vehicle decommissioned in 2016 and replaced with G82 0134S Refueler.

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 62 of 75
	Revision: 0	Effective Date: 10/12/2020

<b>Spill History all reportable releases during history of facilities under this SPCC Plan</b>				
<b>Location Description (Date)</b>	<b>Type and Amount</b>	<b>Cause/Description of Damage/Corrective Action Taken</b>	<b>Watercourse Affected</b>	<b>Action Taken to Prevent Recurrence</b>
R-67 Well Pad (8/3/15)	Diesel 8-12 oz	Faulty nozzle on refueling truck G82-0414A caused an overflow. Diesel spilled onto the basecourse. Basecourse was cleaned up immediately and taken away for proper disposal.	No	Vehicle maintenance/review preventative measures with personnel. Vehicle decommissioned in 2016 and replaced with G82 0134S Refueler.
R-67 Well Pad (8/5/15)	Diesel 8 oz	Loose filter fittings from refueling truck G82-0414A caused fuel to drip onto the well pad basecourse while truck was leaving site. The basecourse was cleaned up and taken away for disposal.	No	Vehicle maintenance/review preventative measures with personnel. Vehicle decommissioned in 2016 and replaced with G82 0134S Refueler.
SIMR-2 Well Pad (8/6/15)	Diesel ~8 oz	Faulty nozzle on refueling truck G82-0414A caused a small amount of diesel fuel to spill onto the well pad basecourse. The basecourse was cleaned up immediately and taken away for proper disposal.	No	Vehicle maintenance/review preventative measures with personnel. Vehicle decommissioned in 2016 and replaced with G82 0134S Refueler.
R-67 Well Pad (8/6/15)	Diesel ~ 2 Tbsp	Diesel dripped out of the back of refueling truck G82-0414A. The basecourse was cleaned up and taken away for disposal.	No	Vehicle maintenance/review preventative measures with personnel. Vehicle decommissioned in 2016 and replaced with G82 0134S Refueler.
TA-54 Area G Refueling Area (11/12/15)	Diesel ~ .5 gallons	The release occurred during refueling operations when the auto shutoff did not stop the flow in time. The flow was stopped manually and the tanker truck was removed from the site for maintenance. Pads and absorbents were used to remediate the spill.	No	Review preventative measures with personnel. Operational area transferred to EM-LA Contractor in 2018.
TA-54 access road just inside the main gate (9/15/16)	Gasoline < Cup	Mobile refueler truck leaked onto asphalt surface. The vehicle was removed to complete maintenance on the vehicle. Micro-blaze was applied to impacted area.	No	Review preventative measures with personnel. Operational area transferred to EM-LA Contractor in 2018.
TA-60-1 (11/9/16)	Diesel 1 gallon	Refueling truck G82-01079 leaked approximately 1 gallon of diesel fuel onto the asphalt parking lot when the back pump vent malfunctioned on the truck. The spill was immediately cleaned up with absorbent material.	No	Decommissioned in 2016 and replaced with E304640 Refueler.
TA-3-233 (2/15/17)	Diesel <1 cup	Refueling truck E304640 leaked a small amount of diesel fuel onto the pavement while refueling another vehicle. The driver cleaned up the fuel with absorbent material.	No	Review preventative measures with personnel.

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 63 of 75
	Revision: 0	Effective Date: 10/12/2020

<b>Spill History all reportable releases during history of facilities under this SPCC Plan</b>				
<b>Location Description (Date)</b>	<b>Type and Amount</b>	<b>Cause/Description of Damage/Corrective Action Taken</b>	<b>Watercourse Affected</b>	<b>Action Taken to Prevent Recurrence</b>
Heavy Equipment Yard (9/20/17)	Oil <1 gallon	Three small releases identified with one related to equipment under this SPCC Plan: evidence empty oil drum within secondary containment on SE side seeped. Area microblazed/oil absorbent applied.	No	Review preventative measures with personnel.
TA-60-1 outside of southeast repair bay (1/25/18)	Coolant <5 gallon	Coolant line leak from refueling truck E29904 during repairs onto the concrete pad. Leak stopped, dry absorbant applied, and leak contained on-site. Did not reach storm drain.	No	Completed repairs on vehicle.
Intersection of Eniwetok and Maniac Roads (8/8/18)	Gasoline 1 cup	During refueling of a man lift the truck's fuel hose developed a leak while dispensing fuel onto the underlying soil west of TA-60-01. Operation stopped upon discovery of spill and the impacted soil was removed.	No	Vehicle maintenance completed.
TA-60-1 north side of east lot (2/27/19)	Oily water ~3 gallon	During lifting a bin, containing a drum of oil filters, to move it to the MRF the drum opened and a mix of residual storm water in the bin and oil leaked. Spill primarily to asphalt with a small area of impacted soil. Absorbent applied to impacted area to remove residual water. Micro-blaze applied. Impacted soil removed.	No	Review preventative measures with personnel.
TA-60-1 near refueling area (12/18/19)	Oil <1 gallon	Oil spilled on asphalt. HOW WAS THIS CLEANED UP	No	Review preventative measures with personnel.
TA-60-1 east side by center bay and center of upper east lot (3/25/20)	Oil <5 gallons	Minor leaks from heavy equipment stored within TA-60-1, including diesel tanker truck E29904 and in southeast corner TA-60-1 product storage area. Spills cleaned up and micro-blazed.	No	Review preventative measures with personnel.
TA-60-1 outside door of upper bay on east side (4/17/20)	Antifreeze <5 gallons	Two anti-freeze spills associated with a fuel truck that had a heater hose leak. HOW WAS THIS CLEANED UP	No	Vehicle maintenance completed.
TA-60-1 Heavy Equipment Yard (6/1/20)	Diesel <2 gallon	Fuel filter gasket on refueling line failed during transfer of fuel to pick-up truck releasing diesel onto asphalt. Absorbent pads and Micro-Blaze applied to impacted area. Filter was replaced.	No	Filter replacement added to preventative maintenance schedule.

LOG-HERG Refueling Trucks & TA-60-1 Heavy Equipment Shop	No: SPCC-PLN-60-03	Page 64 of 75
	Revision: 0	Effective Date: 10/12/2020

This Page Intentionally Left Blank



### TA-60-1 HES and LOG-REFUELERS – SPILL TRACKING LOG

Date and time	Spill Location	Quantity discharged in arroyo, stream, river, or canyon	Type, source, Material and Quantity Spilled*	Description of affected media	Cause of discharge	Damages or injuries caused by discharge	Corrective Action Taken	Evacuation needed?	Names of those contacted

LOG-HERG Refueling Trucks & TA-60-1 Heavy Equipment Shop	No: SPCC-PLN-60-03	Page 66 of 75
	Revision: 0	Effective Date: 10/12/2020

This Page Intentionally Left Blank

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 67 of 75
	Revision: 0	Effective Date: 10/12/2020

## **TA-60-1 HEAVY EQUIPMENT SHOP / LOG REFUELERS – SPILL NOTIFICATIONS**

### **National Response Center**

The National Response Center or NRC is the federal government's national communications center, which is staffed 24 hours a day by U.S. Coast Guard officers and marine science technicians. The NRC receives all reports of releases involving hazardous substances and oil that trigger the federal notification requirements under several laws. Reports to the NRC activate the National Contingency Plan and the federal government's response capabilities. It is the responsibility of the NRC staff to notify the pre-designated on-scene coordinator (OSC) assigned to the area of the incident and to collect available information on the size and nature of the release, the Facility or vessel involved, and the party (ies) responsible for the release. The NRC maintains reports of all releases and spills in a national database.

### **How to Report Oil Spills**

Reporting a hazardous substance release or oil spill takes only a few minutes. To report a release or spill, contact the federal government's centralized reporting center, the National Response Center (NRC), at 1-800-424-8802. The NRC is staffed 24 hours a day by U.S. Coast Guard personnel, who will ask you to provide as much information about the incident as possible. If possible, you should be ready to report the following:

- Your name, location, organization, and telephone number
- Name and address of the party responsible for the incident
- Date and time of the incident
- Location of the incident
- Source and cause of the release or spill
- Types of material(s) released or spilled
- Quantity of materials released or spilled
- Danger or threat posed by the release or spill
- Number and types of injuries (if any)
- Weather conditions at the incident location

Any other information that may help emergency personnel responds to the incident

If reporting directly to the NRC is not possible, reports also can be made to the EPA Regional office or the U.S. Coast Guard Marine Safety Office in the area where the incident occurred. In general, EPA should be contacted if the incident involves a release to inland areas or inland waters, and the U.S. Coast Guard should be contacted for releases to coastal waters, the Great Lakes, ports and harbors, or the Mississippi River. The EPA or U.S. Coast Guard will relay release and spill reports to the NRC promptly.

### **How Reports Are Handled**

All reports of hazardous substance releases and oil spills made to the federal government are maintained by the NRC. The NRC records and maintains all reports in a computer database called the Emergency Response Notification System, which is available to the public. The NRC relays the release information to an EPA or U.S. Coast Guard On Scene Coordinator (OSC), depending on the location of the incident. In every area of the country, OSCs are on-call and ready to respond to an oil or hazardous substance release at any time of the day. After receiving a report of an oil or hazardous substance release, the federal OSC evaluates the situation and, if the OSC decides that a federal emergency response action is necessary, the National Response System will be activated. Otherwise, the OSC will monitor the cleanup activities of the responsible party and the local and state governments, and will assist in the cleanup as warranted.

### **EPA Region 6**

**Emergency Response Center** 1-866-EPASPILL      1-866-372-7745

### **State of New Mexico**

**New Mexico State Police**      505-476-9620

**New Mexico Environment Department** 505-827-9126

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 68 of 75
	Revision: 0	Effective Date: 10/12/2020

### **Notification of Spills and Unauthorized Discharges**

**Who Must Provide Notification?** The owner, operator, or person in charge of any Facility where a discharge has occurred must provide notification such release to the New Mexico Environment Department.

**What Kinds of Discharges Must be Reported?** 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, bio-hazardous, 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.

**Are There Reportable Quantities?** New Mexico has not established reportable quantities.

**When Must Notification Be Provided?** Verbal notification must be provided as soon as possible after learning of a discharge, but in no event more than twenty-four (24) hours thereafter.

**How Should Notification be provided?**

**For emergencies, call 505-827-9329 twenty-four hours a day.**

**For non-emergencies, call 866-428-6535 (voice mail, twenty-four hours a day).**

**For non-emergencies, and to reach an on-duty NMED staff member during normal business hours, call 505-827-2855.**

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 69 of 75
	Revision: 0	Effective Date: 10/12/2020

**TA-60-1 HEAVY EQUIPMENT SHOP / LOG REFUELERS – SPILL REPORTS**

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 70 of 75
	Revision: 0	Effective Date: 10/12/2020

## Appendix F: Storm Water Discharge Forms

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 71 of 75
	Revision: 0	Effective Date: 10/12/2020

## STORM WATER DISCHARGE RECORD FOR SECONDARY CONTAINMENT

**DO NOT DISCHARGE, especially into a watercourse or storm drain before filling out this form AND calling EPC-CP at 667-0666 for approval to discharge.**

LOCATION: TA- \_\_\_\_\_ Near or at  
Building \_\_\_\_\_

GROUP CONTACT: \_\_\_\_\_

PHONE: \_\_\_\_\_ CELL: \_\_\_\_\_

SOURCE OF DISCHARGE: ☐ Detention Pond \_\_\_\_\_

☐ Secondary Containment ☐ Other

DESCRIBE DISCHARGE: \_\_\_\_\_

DATE AND TIME OF DISCHARGE: \_\_\_\_\_

NEAREST CANYON AFFECTED: \_\_\_\_\_

VOLUME OF DISCHARGE: \_\_\_\_\_ gallons

VISUAL DESCRIPTION OF DISCHARGE:

- pH: \_\_\_\_\_
- Color: \_\_\_\_\_
- Clarity: \_\_\_\_\_
- Odor: \_\_\_\_\_
- Sheen: \_\_\_\_\_

OTHER ANALYSES REQUESTED:

\_\_\_\_\_  
\_\_\_\_\_

LAB DOING ANALYSES:  
COMMENTS:

PHONE#:

\_\_\_\_\_  
Signature: \_\_\_\_\_

Date: \_\_\_\_\_



<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 72 of 75
	Revision: 0	Effective Date: 10/12/2020

### **Appendix G: Training Records**

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 73 of 75
	Revision: 0	Effective Date: 10/12/2020

This Page Intentionally Left Blank

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 74 of 75
	Revision: 0	Effective Date: 10/12/2020

## Appendix H: PetroBarriers™ Specification Sheet

### SPI STORM DRAIN PETRO-BARRIER BOX™ USED FOR OIL CONTAINMENT

SPI Storm Water Petro-Barrier-Boxes are custom manufactured for any size storm drain for a variety of applications. SPI customers that have used our technology solutions for years for oil spill containment saw the need to expand the use of our technology for storm water drains. Every Petro-Barrier-Box is built to the same standards as other SPI products allowing oil free water to pass only absorbing trace oil sheen and totally shutting down in an oil spill.



Petro-Barrier-Box is two parts the mounting flange that is attached to the iron rim that supports the storm grate. The rim is first cleaned removing all residue and then the flange is attached with construction adhesive. The adhesive dries permanently attaching the flange to the iron rim. The aluminum used is 1/8" and the grate is minimally raised to prevent problems. The Petro-Barrier-Box is lowered through the flange and is attached with stainless steel screws. There is a 4" manual overflow valve to evacuate water in an emergency, this is operated with a T-Handle and turned 10 times to fully open. The T-Handle must then be fully



Closed to ensure Storm Water Petro-Barrier-Box is in full protection mode.. In many applications the T-handle will slip through the grate to open and close the valve.

<b>LOG-HERG Refueling Trucks &amp; TA-60-1 Heavy Equipment Shop</b>	No: SPCC-PLN-60-03	Page 75 of 75
	Revision: 0	Effective Date: 10/12/2020

The Petro-Barrier-Box requires routine maintenance for proper operation. Each box must be cleaned by removing and replacing the dirt and debris filters on an as needed basis. The cleaning schedule needs to be developed on site since all environmental situations vary by location.



Water has backed up from the storm drain. Petro-Barrier-Box is not draining well and needs maintenance.



Storm grate is fully covered with water with Petro-Barrier-Box installed. No maintenance has been performed in 9 months.

Petro-Barrier-Boxes require more maintenance than other SPI products. Storm drains are usually in parking lots and high traffic areas that drain a large area and also are more exposed to fine dirt, leaves and other materials. Developing a maintenance procedure will prevent this situation and keep the Petro-Barrier-Boxes working with few problems.



The water has been evacuated from the surrounding area by raising the overflow valve. Directly under the grate the mud, sludge and debris is removed.



The second set of dirt filters are removed finally showing some clean filter on the bottom. The dirt had made it to the second set of dirt filters but did not impact the Barrier-Box.



All of the dirt, mud and debris is cleaned from the pre-filter in the flanged area. New filters are installed above the Petro-Barrier-Box, none of the dirt made it through the filters.



The top layer of filters is placed inside the flanged area including filters around the by-pass valve. The grate is then replaced and the Petro-Barrier-Box is back in service.

The storm Drain Petro-Barrier-Boxes will allow water to pass while filtering oil sheen in most cases to below 1ppm and still provide 100% Oil Spill Protection.