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MSGP Stormwater Pollution Prevention Plan

TA-69 Wood Yard

Triad National Security, LLC
Los Alamos National Laboratory

12/11/2024

Revision 1

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TA-69 Wood Yard 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 A-Timber Products* as a guide. The applicable stormwater discharge permit is EPA General Permit Identification Tracking 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-69 Wood Yard 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-69 Wood Yard. The current MSGP expires at midnight on February 28, 2026.

1.0 FACILITY DESCRIPTION

1.1 Facility Information

Name of Facility: TA-69 Wood Yard		
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 (2021 MSGP, Appendix D and Part 8): SIC Code 2411, Sector A, Subsector A3		
Estimated area of industrial activity at site exposed to stormwater: 2.1 acres		
Discharge Information		
Name(s) of surface water(s)/segment that receives stormwater from your facility: Two Mile Canyon (Pajarito to Headwaters) (NM-128.A_15) (within LANL).		
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 No		
Pollutants causing the impairment: Adjusted Gross Alpha, Aluminum (total recoverable), Copper (dissolved) and PCBs.		
Pollutants causing the impairment (see above) that may be present in industrial stormwater discharges from this Facility: N/A		

Are any of your stormwater discharges subject to effluent limitation guidelines (ELGs) (2021 MSGP Table 1-1)? ☐ Yes ☒ No

If yes, which guidelines apply?

1.2 Stormwater Pollution Prevention Team (PPT)

The TA-69 Wood Yard is operated by the Emergency Management Division Office (EM-DIVOFF). For MSGP activities at this MSGP site a PPT has been established whose members are responsible for assisting the Division in developing and revising this SWPPP as well as taking a proactive approach to maintaining stormwater control measures and ensuring corrective action is taken when required. All PPT members will have access to either a hard copy or electronic version of this SWPPP.

The specific duties of individual team members of the PPT are listed in the table below.

Staff Names	Individual Responsibilities
Deployed Environmental Professional (DEP): Marvin Mascareñas, EPC-CP	Responsible for the support and oversight of all environmental programs and issues for the yards, buildings and facilities listed within this Plan. The DEP is responsible for training, recordkeeping, and SWPPP revision. The DEP ensures documentation of inspections and other required MSGP records relative to the SWPPP are managed in accordance with the Permit and established document control procedures and that the SWPPP is kept current. The DEP provides technical and regulatory support and regularly communicates with facility and operations personnel, as well as 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 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. The DEP is also responsible for immediate and timely communication to appropriate facility and operations management personnel to ensure that they are aware of non-compliant issues within the MSGP boundary and that they understand immediate action is required to correct the non-compliance.
Wildland Fire Program Manager: Richard Nieto	Certifying SWPPP. Responsible for managing the maintenance and operation of all aspects of TA-69 Wood Yard. The manager shall provide review and ensure coordination with core personnel and the PPT, as appropriate, when the program proposes new processes, operations, features, or a new site that may be subject to the MSGP. This manager is key to ensuring adequate communication and coordination of issues regarding implementation of the MSGP and this Plan.

EPC Core: Jacob Knight, MSGP Program Lead, EPC-CP	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.
Project Manager: Rich Nieto, Project Manager	Responsible for day-to-day operations at the site. Assists the DEP and EPC with inspections; spill reporting; implementing, installing, and maintaining storm water control measures (SCMs); and providing documentation as requested by other team members. The Superintendent is key to ensuring adequate communication and coordination of issues regarding implementation of the MSGP and this Plan. The Superintendent also assists the DEP/EPC with SWPPP training and/or briefings, as requested.

1.3 Site Description

The Wood Yard consists of a cleared area that serves as a permanent laydown area for cut timber, firewood, and equipment staging. Total area is 2.1 acres. The site is stabilized with asphalt millings, which is permeable. There are earthen berms around the perimeter of the site that have been seeded and hydromulched. The berms serve as stormwater run-on/runoff controls.

1.4 General Location Map

The general location map for the facility can be found in Figure A. Figure B-1 contains the site map and identifies all receiving waters associated with stormwater discharges from the facility. The site flows to a tributary of Two Mile Canyon (ephemeral). Both canyons eventually flow to the Rio Grande approximately 11 miles southeast of the site.

1.5 Site Map

The site map is provided as Figure B-1 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 2021 MSGP, the following information specific to the facility is either shown on the site map or described in this SWPPP.

- **Site boundaries and acreage.** The site covers approximately 2.1 acres.
- **Significant structures and impervious surfaces.** The site is 0 percent impervious, asphalt millings.
- **Direction of stormwater flow and site drainage.** Stormwater primarily flows south and east. There are flow arrows on the site map.

- **Locations of stormwater control measures (SCMs).** All SCMs are identified in Figure B-1.
- **Locations of all receiving waters.** It is not anticipated that this site would have stormwater discharges; however, if there was a discharge, it would flow to a tributary of Two Mile Canyon which is an impaired receiving water with no Total Maximum Daily Load (TMDL). A map of nearby receiving waters is provided as Figure B-2.
- **Locations of all stormwater conveyances.** The site perimeter is lined with earthen berms that would direct stormwater flow to the southeast corner of the site. If a stormwater discharge were to occur naturally occurring drainage paths would direct flows.
- **Locations of potential pollutant sources.** Material storage areas and equipment operations and staging. The locations of these potential pollutant sources are identified on the site map (Figure B-1).
- **Locations of significant spills or leaks.** N/A
- **Locations of all stormwater monitoring points.** The automated sampler will be located at a potential stormwater discharge point at the southeast perimeter of the facility.
- **Locations of stormwater inlets and outfalls.** Only one outfall is associated with this site and it is located on the SE corner of the site.
- This facility is not associated with a municipal separate storm sewer system (MS4).
- **Areas of designated critical habitat for endangered or threatened species.** The site is not within the developed core or buffer area for Mexican Spotted Owl habitat. A map for threatened and endangered species within LANL property is included in attachment 13.
- Locations where activities are exposed to precipitation are provided below:
 - The facility will be used as a staging area for cut timber from clearing activities.
 - Fuel wood processing will occur within the bermed area.
 - Heavy equipment will be used to deliver cut timber and for removal of final product.
 - Heavy equipment will be staged on site.

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.

2.1 Potential Pollutants Associated with Industrial Activity

Heavy equipment such as front-end loaders, skid steers, backhoes, pickup trucks, graders, water trucks; and timber handling equipment such as forwarders, harvesters, chainsaws, wood processing machines, masticators, logging trucks and other miscellaneous machinery as needed that have the potential for spills and leaks. In addition, spills or leaks may occur during any fueling activities equipment on site. Sediment loss due to erosion is a possibility. If erosion occurs additional stormwater controls will be installed.

2.2 Spills and Leaks

Spills and leaks will be summarized in Attachment 24. There were no identified spills in 2024 activities. Areas where spills and leaks could occur at the TA-69 Wood Yard are provided in the table below.

Specific Equipment/Industrial Activity Areas and Location	Outfall(s) Affected
---	---------------------

TA-69 Wood Yard permitted boundary – see site map	085
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In the event of a spill or leak at 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 Attachment 24. In addition, spills within MSGP facility boundaries are entered as conditions requiring corrective action in the MSGP CAR database and are updated as corrective action occurs, in accordance with EPC-CP-QP-2109, *MSGP Corrective Actions*.

The probability of spills or releases at the facility is minimized by routine inspections of equipment.

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 potable water use. 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, a new permit is issued, or the operator of LANL changes.

2.4 Salt Storage

No salt storage or piles that contain salt are present at the facility.

2.5 Historical Data Summary

Permitted Facility: TA-69 Wood Yard

CY 2024

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.
	Average of four monitoring values did not exceed benchmark; quarterly monitoring discontinued for the duration of the permit.	Impaired water constituent was not detected in storm water discharge; annual monitoring discontinued for the duration of the permit.	Baseline	AIM Level 1	AIM Level 2	AIM Level 3		
085	—	Total Aroclors	TSS	—	—	—	N/A	Adjusted Gross Alpha, Aluminum, Copper

N/A = Not applicable. No Indicator parameter required.

AIM = Additional Implementation Measures

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.

3.1 Non-Numeric Technology-Based Effluent Limits

3.1.1 Minimize Exposure

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

The facility grounds have been graded to produce a gentle downward grade toward the south-southeast so that site drainage and stormwater flow is directed toward the permitted outfall. Most of the facility is stabilized with asphalt millings. The site is bounded by earthen berms on all sides. The berms serve to redirect stormwater flow and site drainage toward the outfall, minimizing sediment transport and runoff. The berms also prevent run-on to the site. The entrance has track out pads to minimize sediment from going onto the pavement. Spill kits are kept in equipment when possible, otherwise will be located in the vehicles. Pans will be placed under any equipment that has leaks until they can be fixed.

3.1.2 Good Housekeeping

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

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

- Routine inspections of equipment are performed.
- Operational areas are maintained in a clean and orderly state.
- Containers holding raw material or product are kept closed when not in use and containers are not stored in areas that are exposed to precipitation or run-on.
- Containers and materials are properly labeled.
- Stormwater containment structures and berms are kept clean of debris and trash.
- Spills or leaks are cleaned as soon as possible.
- Activities that damage or destroy existing vegetation are kept to a minimum.
- Non-hazardous waste (e.g., trash) generated at the site is not exposed to precipitation.
- No vehicle maintenance or vehicle washing is performed on site.
- Employees are trained about these and other good housekeeping practices and their impact on stormwater discharge.

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. 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. Any dumpsters and/or roll-off bins present 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 2021 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. 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 SCMs to be installed."

3.1.4 Spill Prevention and Response

Spills, leaks, or other releases will be prevented and minimized by the application of good housekeeping procedures and regular visual inspections minimize the probability of a spill or release.

LANL institutional procedures P409 *LANL Waste Management* and P101-14 *Chemical Management* require labeling of wastes, used oils, and chemicals stored on-site to facilitate the proper handling and response if spills or leaks occur. In general, the approach to spill cleanup is to secure the spill area and contact the Operations and Maintenance Coordinator (OMC) and/or the Emergency Management Response (EM-RESP) Team (if necessary). For incidental releases, Micro-Blaze or dry absorbents are used and contaminated absorbents from spill clean-up are disposed of properly.

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-Emergency Management Response (EM-RESP) 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, EM-RESP 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-2109, *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). EM-RESP, 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-0930, *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, EPC-CP-QP-1007, *Unplanned Releases*, can be found in Attachment 22 of this SWPPP.

3.1.5 Erosion and Sediment Control

A list of specific stormwater control measures that help with erosion and sedimentation at the TA-69 Wood Yard are provided below.

Site grading: The facility grounds have been graded to produce a gentle downward grade toward the east so that site drainage and stormwater flow is directed toward the permitted outfall. Most of the facility is stabilized with asphalt millings. Asphalt millings allow for stormwater infiltration.

Berms: The site is bounded by earthen berms on all sides. The berms serve to redirect stormwater flow and site drainage toward the permitted outfall, minimizing sediment transport and runoff. The berms also prevent run-on to the site. An Additional berm was added inside of the outer berm in order to direct water toward the permitted outfall because it was ponding at the southeast corner

Riprap: Rock is used in stabilized swales at the site entrance at the inlet and outlet of a culvert.

Culvert: There is a culvert installed at the site entrance.

Check dams: Rock check dams have been added to slow stormwater and control sediment along the south and east berms

Permitted outfall: There are two small ponds in series that are stabilized with riprap and serve to dissipate the velocity of stormwater runoff and allow for sediment to drop out. There are riprap berms in front of the ponds that also dissipate velocity and collect any sediment.

3.1.6 Management of Runoff

The site has a gentle downward slope toward the south-southeast that directs stormwater discharge to the permitted outfall.

3.1.7 Salt Storage Piles or Piles Containing Salt

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

3.1.8 Dust Generation and Vehicle Tracking of Industrial Materials

The area is stabilized with asphalt millings. Any tracking onto pavement will be swept up. Dust suppression with potable water is performed as needed.

3.2 Numeric Effluent Limitations Based on Effluent Limitations Guidelines (ELGs)

ELGs are not applicable to this industrial activity identified as Secor A, Subsector A3 (SIC 2411).

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.

Certain stream reaches within Two Mile Canyon have been identified as impaired waters by the NMED Surface Water Quality Bureau (SWQB). According to the *2024-2026 State of NM Clean Water Act 303b/305b Integrated Report* and Integrated List of Assessed Surface Waters, pollutants causing the impairment for Two Mile Canyon are listed as: Adjusted Gross Alpha, total recoverable Aluminum, dissolved Copper, and PCBs (Aroclors).

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 2021 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

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. All relevant referenced procedures are provided in Attachments 21 and 22 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 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 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 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 will be recorded in LANL's official UTrain database. Informal briefings, such as those included in group safety meetings are not typically recorded in UTrain. In this case, sign-in sheets are used to document attendance. Under the current Management and Operation contract, Triad must manage this information as official use only (OUO), which requires special handling. All training records are managed in accordance with P204-1, *Controlled Unclassified Information*. Information on employees receiving training is available upon request.

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;
- 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-2108, *MSGP Routine Facility Inspections* (Attachment 16).

Visual assessments are conducted in accordance with EPC-CP-QP-2105, *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 2021 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 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 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;
- 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, and October-December) 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.);
- 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.

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.);
- Perform an additional assessment during the next qualifying storm event if unable to perform in a particular quarter;
- Perform one quarterly assessment during snowmelt 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 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 2021 MSGP (Part 3.2.2).

4.7 Monitoring

Analytical monitoring for this site is comprised of Quarterly Benchmark, Impaired Waters and ELG monitoring for industrial activity identified in Table 4-1 of the 2021 MSGP. 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 will be collected during the next qualifying storm event or as soon as practicable.

Monitoring occurs at automated sampling station MSGP08501 as identified in Section 1.5. Discharge from the facility is SE to Two Mile Canyon (impaired waters), which is a tributary of the Rio Grande located approximately 11 miles east of the facility.

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 or benchmark constituent value exceeds the New Mexico Water Quality criterion or ELG value is exceeded, 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;
- Continue benchmark or annual monitoring of the constituent (as required by Part 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;
- 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-QP-2103, *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 9.6.2.2 of the 2021 MSGP.

Required Monitoring for CY2025

Monitored Outfall	Monitoring Requirement	Industrial Sector	Assessment Unit	Analyte	Filtered/ Unfiltered	Regulatory Standard	Units	Regulatory Standard Type	Regulatory Standard Reference
085	Quarterly Benchmark	A3	—	TSS	F10u	100	mg/L	Benchmark Limit	Part 8.AA.6
	Impaired Waters	—	NM-128.A_16	Al	F10u	N/A	µg/L	Report Only	Part 4.2.5.1
	Impaired Waters	—	NM-128.A_16	Cu	F	N/A	µg/L	Report Only	Part 4.2.5.1
	Impaired Waters	—	NM-128.A_16	Adjusted Gross Alpha	UF	N/A	pCi/L	Report Only	Part 4.2.5.1

F10u = 10 µm filter

F = 0.45 µm filter

UF = Unfiltered

Al = Aluminum

Cu = Copper

TSS = Total Suspended Solids

µg/L = Micrograms per Liter

mg/L = Milligrams per Liter

pCi/L = Picocuries per Liter

NM = New Mexico

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 2.3 of the 2021 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-22-20556) was last updated in January 2022 (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 April 2021, August 2015 and December 2008, the Cultural Resources Team (using GPS spatial data as well as conducting visual inspections), reviewed the active Laboratory industrial sites (see list below) and their associated outfalls and monitoring stations subject to the 2021 Multi-Sector General Permit (Permit #NMR050013 MSGP 2021) 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-9-0214 Metals Fabrication Shop
- TA-3-0038 Metals Fabrication Shop
- TA-16 Stockpile Area
- TA-60 Asphalt Batch Plant
- TA-60-0001 Heavy Equipment Yard
- TA-60 Material Recycle Facility
- TA-60 Roads and Grounds
- TA-60-0002 Warehouse

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; Level, 1, 2, or 3 additional implementation measures (AIM)] 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;
- SCMs 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;
- 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 4.2); 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, called “additional implementation measures” or “AIM.” 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 SCMs) 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.

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.

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 SCMs 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 Corrective Action Reporting (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, detention 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 SCMs 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 Stormwater 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 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-2109, *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

ADM	Asphalt Drum Mixers
AIM	Additional Implementation Measures
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
EM-RESP	Emergency Management-Emergency Management 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
OUO	Official Use Only

PAH	Polyaromatic Hydrocarbons
PPT	Pollution Prevention Team
RAP	Recycled Asphalt Pavement
SCM	Stormwater Control Measures
SIDP	Substantially Identical Discharge Point
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
URL	Uniform Resource Locator

8.0 SWPPP CERTIFICATION

STORMWATER POLLUTION PREVENTION PLAN
TA-69 Wood Yard
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 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.

Signature 
Rich Nieto
Wildland Fire Program Operations Manager

Date 12/12/24

FIGURE A: GENERAL LOCATION MAP

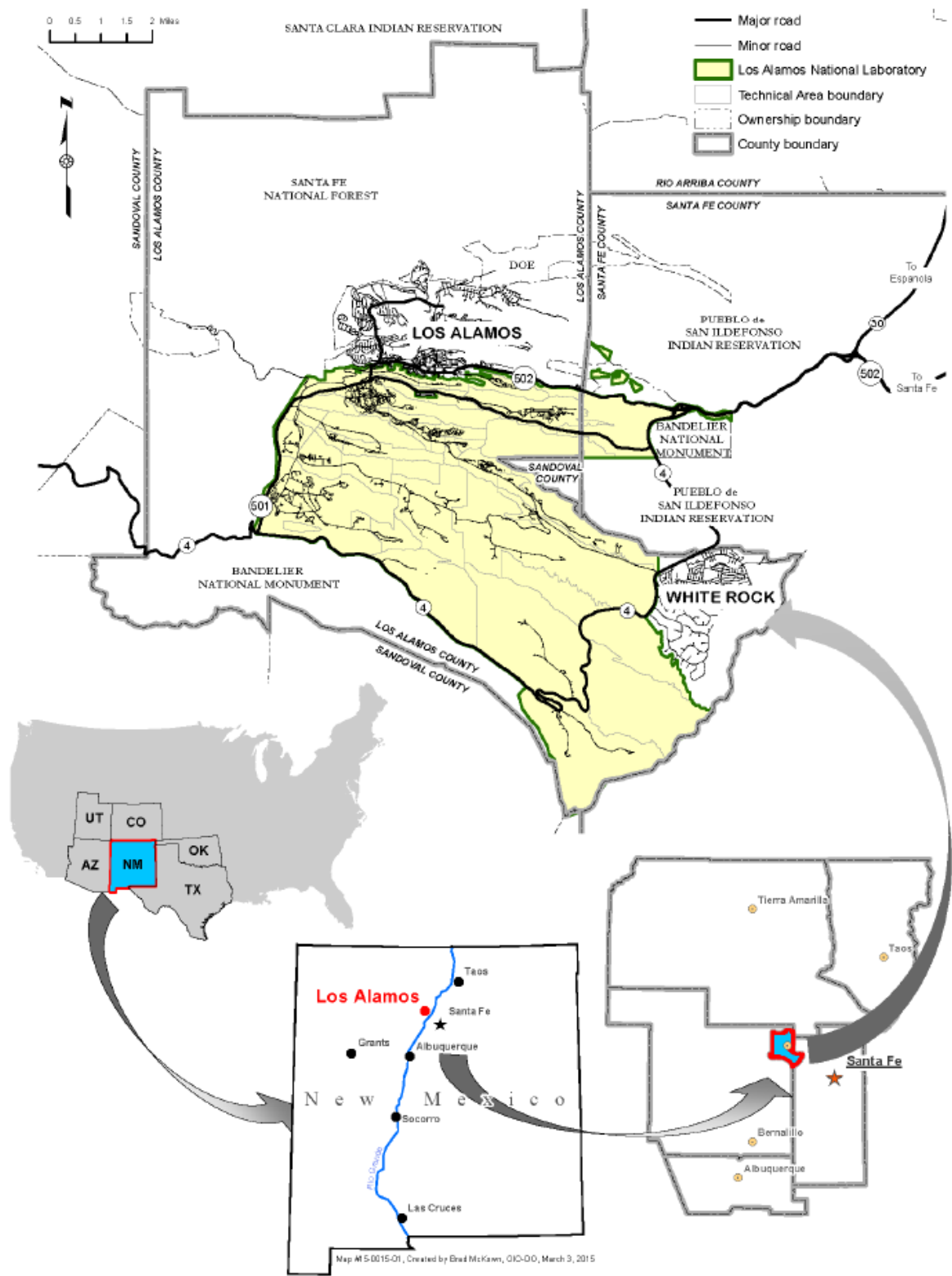


FIGURE B-1: FACILITY SITE MAP

**TA-69
Wood Yard
MSGP Site Map**

- Monitored Outfall
- Automated Sampler
- Flow Direction
- Asphalt Berm
- Earthen Berm
- Rock Check Dam
- Culvert
- Rock Channel/Swale
- Infiltration Basin
- Boundary of Industrial Activity

2.1 acres, 0% Impervious.

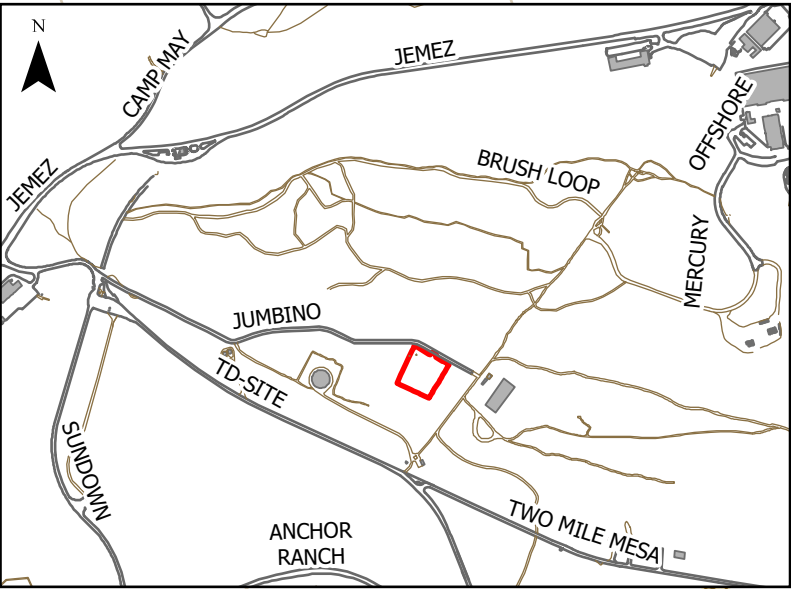
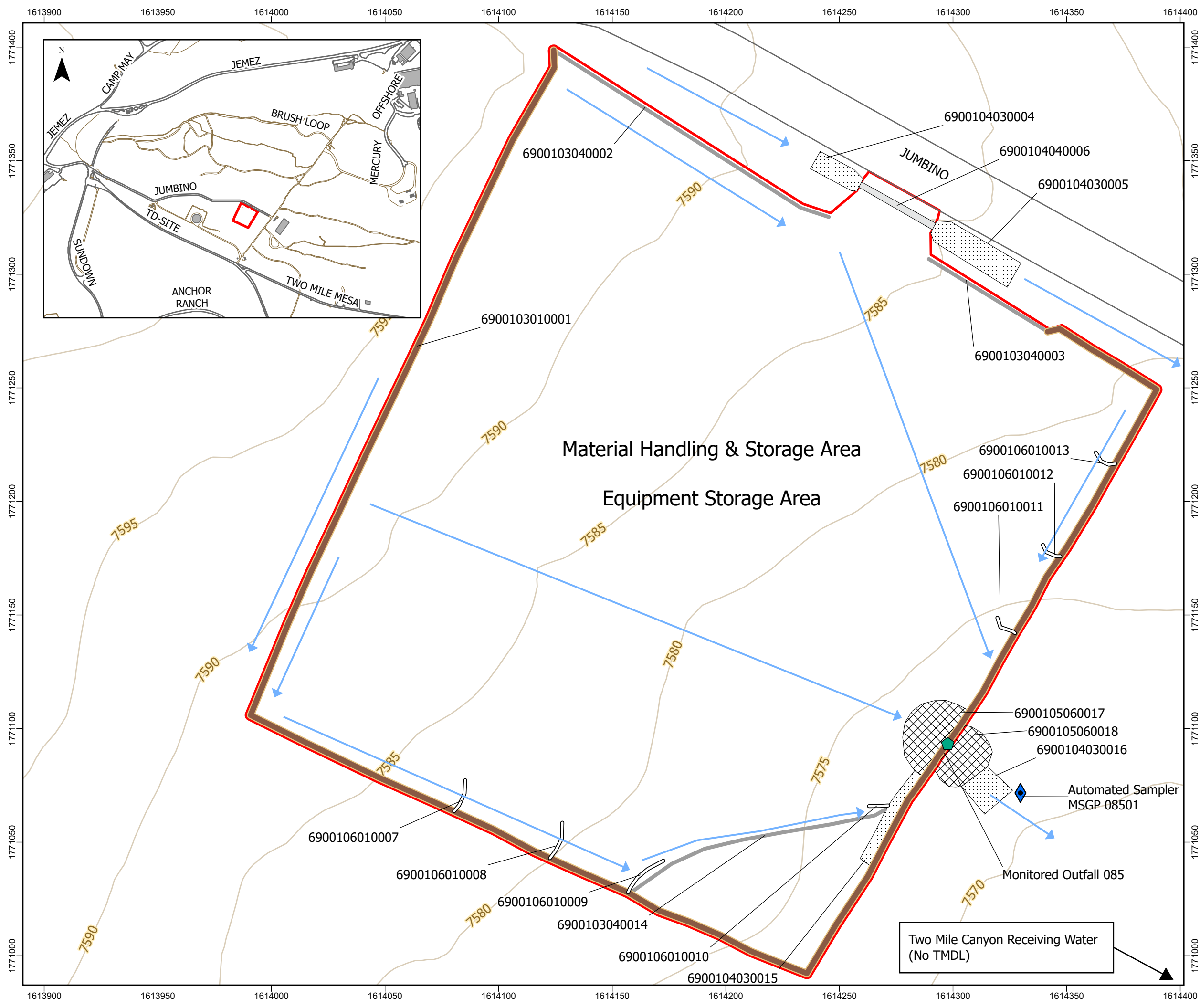
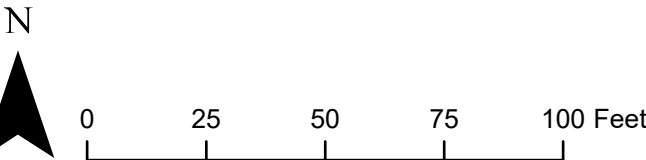
Note - No Critical Habitat Areas.

Discharges to: Two Mile Canyon
Impaired Waters (No TMDL)
EPA Tier 2 Waters

Map Number 24-0001-TA69_Wood_Yard
Map Created by: EPC-CP, T. Walker
Date: June 19th, 2024
Version: 2

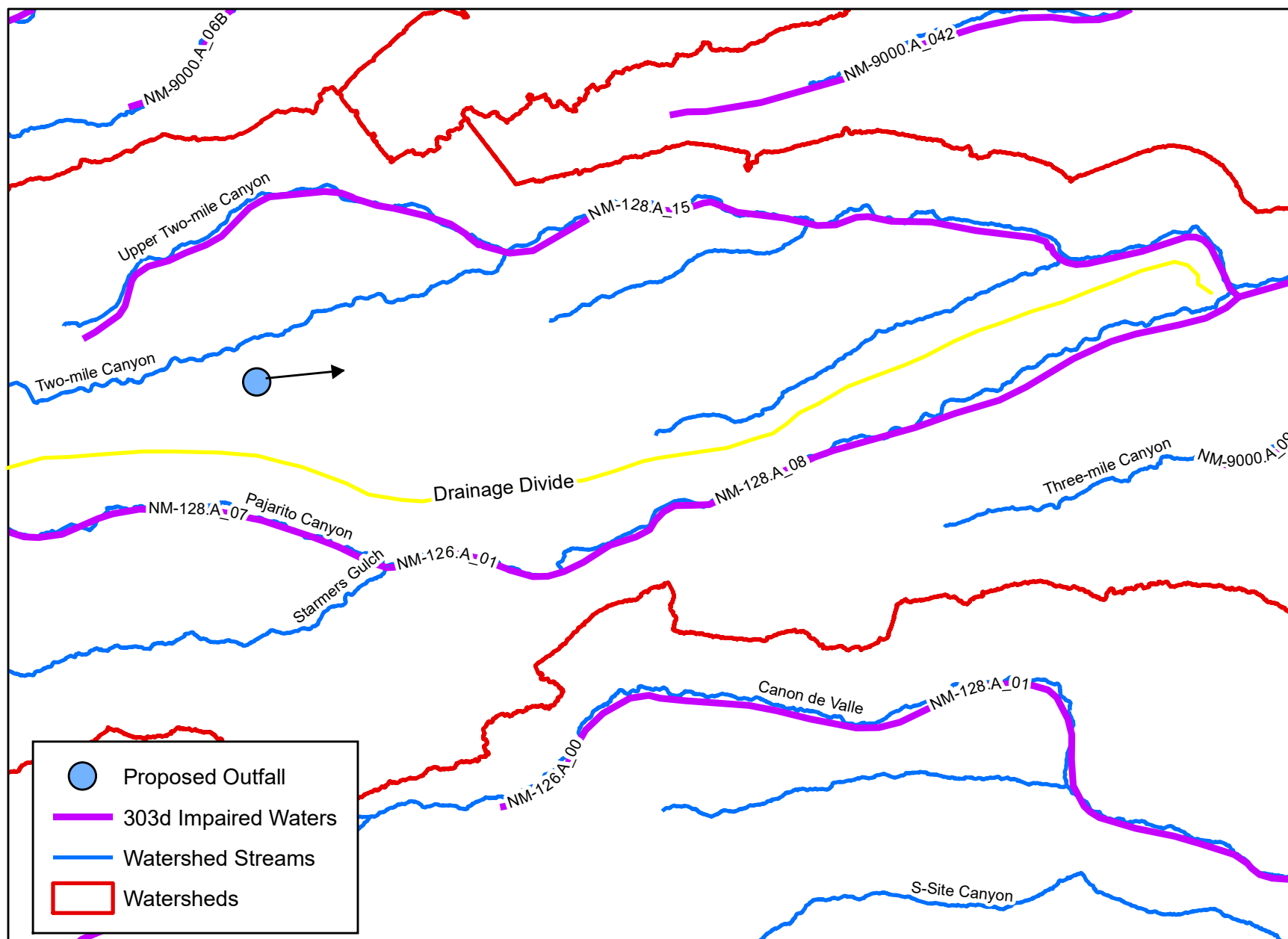
New Mexico State Plane Coordinates System Central Zone (3002)
North American Datum 1983 (NAD983)
US Survey Ft

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




Two Mile Canyon Receiving Water
(No TMDL)

FIGURE B-2: NEARBY RECEIVING WATERS



ATTACHMENT 1: NOTICE OF INTENT, SUPPORTING DOCUMENTATION, AND UPDATES

NPDES FORM 3510-6		UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 NOTICE OF INTENT (NOI) FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY UNDER THE NPDES MULTI-SECTOR GENERAL PERMIT	FORM Approved OMB No. 2040-0004 Expires on 07/31/2026
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This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2040-0004). Responses to this collection of information are mandatory in accordance with this permit and EPA NPDES regulations (40 CFR 122.28(b)(2)). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information are estimated to average 3.7 to 4.1 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Permit Information

Master Permit Number: NMR050000

NPDES ID: NMR050013

Eligibility Information

State/territory where your facility is discharging: NM

Does your facility discharge to federally recognized Indian Country lands? No

Are 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)?

Yes

Which 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.

Yes

Are 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)?

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))**

No

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

What 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)?

Triad National Security LLC

What 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)?

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: Jacob Knight

Organization: Triad National Security LLC

Phone: 505-665-5880

Ext.:

Email: jknight@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): 41

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: PPrimary Subsector: P1Primary SIC Code: 4212

Co-Located Sectors:

Co-Located Sector: DCo-Located Subsector: D1Co-Located SIC Code: 2951Co-Located Sector: NCo-Located Subsector: N2Co-Located SIC Code: 5093Co-Located Sector: AACo-Located Subsector: AA1Co-Located SIC Code: 3499Co-Located Sector: ACo-Located Subsector: A3Co-Located SIC Code: 2411

➤ If you are a Sector A facility, do you manufacture, use, or store creosote or creosote-treated wood in areas that are exposed to precipitation?

No

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

Other Discharge Information

Do you anticipate the discharge of groundwater or spring water from your facility? NoDoes 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
<input type="checkbox"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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:

Listed Water ID:

SANDIA CANYON (SIGMA CANYON TO
NPDES OUTFALL 001)

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>No</u>	<u>No</u>

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

	Sector	Subsector	SIC/Activity Code
<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
<input type="checkbox"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>No</u>	<u>No</u>

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"/>	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
<input type="checkbox"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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:

Listed Water ID:

SANDIA CANYON (SIGMA CANYON TO
NPDES OUTFALL 001)

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>No</u>	<u>No</u>

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
<input type="checkbox"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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:

Listed Water ID:

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>No</u>	<u>No</u>

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
<input type="checkbox"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>No</u>	<u>No</u>

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
<input type="checkbox"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>No</u>	<u>No</u>

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

Sector	Subsector	SIC/Activity Code
<input type="checkbox"/> A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

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 discharge point 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

Latitude/Longitude: 35.866084°N, 106.290165°W

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

Receiving Water

GNIS Name:

Waterbody Name:

Listed Water ID:

MORTANDAD CANYON (WITHIN LANL)

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
MERCURY	Mercury, total [as Hg]	Milligrams per Liter	<u>No</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>Yes</u>	<u>No</u>
RADIATION	Alpha, gross adjusted	Picocuries per Liter	<u>Yes</u>	<u>No</u>

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"/>	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
<input type="checkbox"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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:

Listed Water ID:

MORTANDAD CANYON (WITHIN LANL)

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
MERCURY	Mercury, total [as Hg]	Milligrams per Liter	<u>No</u>	<u>No</u>

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>Yes</u>	<u>No</u>
RADIATION	Alpha, gross adjusted	Picocuries per Liter	<u>Yes</u>	<u>No</u>

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
<input type="checkbox"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>No</u>	<u>No</u>

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
<input type="checkbox"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>No</u>	<u>No</u>

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
<input type="checkbox"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
MERCURY	Mercury, total [as Hg]	Milligrams per Liter	<u>No</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>Yes</u>	<u>No</u>
RADIATION	Alpha, gross adjusted	Picocuries per Liter	<u>Yes</u>	<u>No</u>

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"/>	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"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>No</u>	<u>No</u>

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

	Sector	Subsector	SIC/Activity Code
<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
<input type="checkbox"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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:

Listed Water ID:

SANDIA CANYON (SIGMA CANYON TO
NPDES OUTFALL 001)

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>No</u>	<u>No</u>

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
<input type="checkbox"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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:

Listed Water ID:

SANDIA CANYON (SIGMA CANYON TO
NPDES OUTFALL 001)

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>No</u>	<u>No</u>

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
<input type="checkbox"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>No</u>	<u>No</u>
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>

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
<input type="checkbox"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>No</u>	<u>No</u>

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"/>	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"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>No</u>	<u>No</u>

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

	Sector	Subsector	SIC/Activity Code
<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 type="checkbox"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>No</u>	<u>No</u>

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
<input type="checkbox"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>No</u>	<u>No</u>

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
<input type="checkbox"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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:

Listed Water ID:

SANDIA CANYON (SIGMA CANYON TO NPDES OUTFALL 001)

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>No</u>	<u>No</u>

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
<input type="checkbox"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>No</u>	<u>No</u>

Discharge Point 078: TA-16 Stockpile 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 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
<input type="checkbox"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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:

CAñON 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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
RADIATION	Alpha, gross adjusted	Picocuries per Liter	<u>Yes</u>	<u>No</u>

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
<input type="checkbox"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

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 (ABOVE
KIELING SPRING TO HEADW)

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>Yes</u>	<u>No</u>
RADIATION	Alpha, gross adjusted	Picocuries per Liter	<u>Yes</u>	<u>No</u>

Discharge Point 084: 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 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

	Sector	Subsector	SIC/Activity Code
<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"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411

Federal Effluent Limitation Guidelines:

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

There are no guidelines associated with the sector(s) selected in this discharge point.

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

Latitude/Longitude: 35.867771°N, 106.291467°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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>No</u>	<u>No</u>
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>

Discharge Point 085: TA-69 Wood 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 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"/>	A - TIMBER PRODUCTS	A3 - Log Storage and Handling	2411
<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

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 429, Subpart I	Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	A	01/26/1981	Does your discharge point have any discharges subject to this effluent limitation guideline? <u>No</u>

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? No

Latitude/Longitude: 35.867612°N, 106.338173°W

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

Receiving Water

GNIS Name:
n/a

Waterbody Name:
NM-128.A_15

Listed Water ID:
n/a

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 may be outdated and inaccurate (i.e. determining if the receiving water is listed as impaired on the 303(d) list, the cause(s) of the impairment if impaired, the pollutant(s)). It is recommended that you consult with your state's guidance for discharges into impaired waters to determine whether the receiving water is listed as impaired and, if so, the correct causes for the impairment and pollutant(s), and update the information accordingly.

Is the receiving water listed as impaired on the 303(d) list? Yes

Cause of Impairment Group	Pollutant	Units	Monitoring Required?	TMDL Completed?
RADIATION	Alpha, gross adjusted	Picocuries per Liter	<u>Yes</u>	<u>No</u>
POLYCHLORINATED BIPHENYLS (PCBS)	Polychlorinated biphenyls [PCBs]	Milligrams per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Aluminum, total recoverable	Micrograms per Liter	<u>Yes</u>	<u>No</u>
METALS (OTHER THAN MERCURY)	Copper, dissolved [as Cu]	Micrograms per Liter	<u>Yes</u>	<u>No</u>

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: Jacob L Knight

Phone: 505-665-5880

Ext.:

Email: jknight@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)) (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_relating_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, Cons. # 02ENNM00-2019-I-0985, Cons. #2-22-05-I-392, Cons. # 02ENNM00-2012-0089

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
 USFWS concurrence for Clean Fill BA.pdf (attachment/877170)	05/02/2024	463.41 KB
 Asphalt Batch Plant and Rock Crusher at Sigma Mesa USFWS Letter.pdf (attachment/877169)	05/02/2024	841.95 KB
 20190418_concurrence_LANL asphalt plant replacement.pdf (attachment/877168)	05/02/2024	176.27 KB
 1999 HMP Concurrence Letter USFWS to DOE.pdf (attachment/877164)	05/19/2021	276.65 KB
 2015-0538_USFWS Concurrence Letter_8-2015.pdf (attachment/877163)	05/19/2021	94.97 KB
 Concurrence_8DEC2013_Biological Assessment of Jemez Mtn Salamander site Plan (2).pdf (attachment/877162)	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_relating_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/subjects/historicpreservationfund/tribal-historic-preservation-office-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**.

Additional Supporting Information

Use this section to provide additional information you feel is pertinent to your coverage or to provide information in a Change NOI for a numeric effluent limitation exceedance as required in part 4.2.3.3. of the permit.

Do you have supporting information you would like to add? Yes

Enter Supporting Information

Date	Additional Information Details
05/05/2024	In the Operator Information section of this Change NOI, the NOI Preparer is revised to Jacob Knight.
05/05/2024	In the Facility Information section of this Change NOI, the total estimated area of industrial activity is revised from 38.75 to 41 acres, and Co-located Sector A, Co-located Subsector A3 was added.
05/05/2024	In the Discharge Information section of this Change NOI, Discharge Point 085 was added.
05/05/2024	In the SWPPP Information section of this Change NOI, the SWPPP Contact is revised to Jacob Knight.
05/02/2024	The 2024-2026 State of New Mexico CWA 303(d)/305(b) Integrated Report was approved by the NM WQCC on March 14, 2024. In that report, Copper (dissolved) was delisted from NM-9000.A_047, Sandia Canyon (Sigma Canyon to NPDES Outfall 001). In the Discharge Information section of this Change NOI, Copper (dissolved) was changed to "Monitoring Not Required" for discharge points 022, 026, 029, 032, 037, 042, 075, 076, 077, and 084 and SIDPs 021, 023, 024, 025, 027, 028, 033, 034, 035. https://www.env.nm.gov/surface-water-quality/303d-305b/
09/20/2022	In the Facility Information section of this Change NOI, the total estimated area of industrial activity is revised from 39.75 acres to 38.75 acres.
09/20/2022	The 2022-2024 State of New Mexico CWA 303(d)/305(b) Integrated Report was approved by EPA on April 26, 2022. In that report, the Assessment Unit description for NM-128.A_16 was changed from Arroyo de la Delfe (Pajarito Canyon to headwaters) to Arroyo de la Delfe (Above Kielling Spring to headwaters). In the Discharge Information section of this Change NOI, the Assessment Unit description was updated to reflect this change for discharge point 079. https://cloud.env.nm.gov/water/pages/view.php?ref=8234&k=c19431341b
09/20/2022	The 2022-2024 State of New Mexico CWA 303(d)/305(b) Integrated Report was approved by EPA on April 26, 2022. In that report, Mercury (total) was delisted from NM- 9000.A_042 - Mortandad Canyon (within LANL). In the Discharge Information section of this Change NOI, Mercury (total) was changed to "Monitoring Not Required" for discharge points 031 and 043, and SIDP 030. https://cloud.env.nm.gov/water/pages/view.php?ref=8234&k=c19431341b
09/19/2022	At Outfall 043, a single TSS result of 70.3 mg/L exceeded the ELG Daily Max limit of 23.0 mg/L and Monthly Avg limit of 15 mg/L. This exceedance is being reported on this Change NOI as required by Part 4.2.3.3.

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 payne

Certifier Title: Division Leader

Certifier Email: jpayne@lanl.gov

Certified On: 05/10/2024 12:40 PM ET

ATTACHMENT 2: SWPPP AMENDMENTS

Date	Plan Section	Reason for Amendment	Amendment
June 2024	New site map	Additional controls added	Created new map
Dec 2024	New Revision 1	Yearly update	Stormwater controls and attachments

ATTACHMENT 3: CERTIFICATION OF NO UNAUTHORIZED STORMWATER DISCHARGES

Unauthorized Non-Storm Water Discharge Assessment and Certification

Facility:	TA-69 Wood Yard		
Outfalls (including SIOs*) or Other Onsite Drainage Points Observed During the Assessment	Identified Potential Sources of Unauthorized Non-Storm Water Discharge (if applicable)	Description of Assessment Criterion Used	Describe any Required Actions to Control or Eliminate the Discharge
Monitored Outfall 085	None	Visual Evaluation	None
Assessor:			
Print Name: Jacob Knight	Signature: Jacob Knight <small>Digitally signed by Jacob Knight Date: 2024.08.02 09:59:42 -06'00'</small>	Title: Environmental Professional	Date Assessed: 8/1/24
Authorized Signatory: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.			
Print Name: Richard Nieto	Signature: RICHARD NIETO (Affiliate) <small>Digitally signed by RICHARD NIETO (Affiliate) Date: 2024.08.02 10:45:44 -06'00'</small>	Title: Wildland Fire Program Manager	Date Certified: 8/2/24

*SIO = Substantially Identical Outfall

ATTACHMENT 4: DULY AUTHORIZED SIGNATORY MEMORANDUM



**Environmental Protection & Compliance Division
Compliance Programs Group**

Los Alamos National Laboratory
PO Box 1663, M969
Los Alamos, NM 87545
505-667-5466

Symbol: EPC-DO: 22-139
LAUR: 22-24721
Locates: N/A
Date: 08/11/2022

Dr. Earthea Nance, Regional Administrator
U.S. Environmental Protection Agency, Region 6
1201 Elm Street, Suite 500
Dallas, Texas, 75270

**Subject: Notification of Triad National Security, LLC (Triad), Signatory Officials
and Authorized Representatives for National Pollutant Discharge
Elimination System (NPDES) Permits**

Dear Dr. Nance:

The purpose of this letter is to provide an update to the U.S. Environmental Protection Agency (EPA) Region 6 for the Triad National Security, LLC (Triad) delegation of authority for signature on documents associated with the various Los Alamos National Laboratory (LANL) National Pollutant Discharge Elimination System (NPDES) Permits, pursuant to Title 40 of the Code of Federal Regulations (40 CFR) §122.22(c). This letter supersedes and replaces the signatory authority letter dated December 11, 2018 (EPC-DO: 18-453).

The positions of Associate Laboratory Director of Environment, Safety, Health, Quality, Safeguards, and Security (ESHQSS), and Division Leader of the Environmental Protection and 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 Notices of Intent (NOIs)] required under the LANL NPDES Industrial Point Source Outfall Permit (Permit No. NM0028355), the NPDES Construction General Permit (CGP) for Stormwater Discharges from Construction Activities, the NPDES Multi-Sector General Permit (MSGP) (Permit No. NMR050013) for Stormwater Discharges Associated with Industrial Activity and the NPDES Pesticide General Permit (Permit No. NMG870002) for Discharges from the Application of Pesticides.

The following positions are hereby designated as authorized representatives under 40 CFR §122.22(b) to sign reports, Stormwater 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 Compliance Programs Group.
- Responsible Facility Operations Director (FOD).

NPDES CGP:

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

NPDES MSGP (No. NMR050013)

- Positions listed as primary signatory officials above.
- Group Leader or Team Leaders within the Compliance Programs Group.
- Division Leader, Deputy Division Leader, or Group Leader of the Triad division responsible for the overall operation of the regulated facility or activity.
- Responsible FOD, Deputy FOD, or Operations Manager responsible for the overall operation of the regulated facility or activity.

NPDES Pesticide General Permit (No. NMG870002)

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

If you have questions, please contact me at (505) 667-7912, (505) 500-2273 or at jpayne@lanl.gov.

Sincerely,

JENNIFER
PAYNE (Affiliate)

Digitally signed by JENNIFER
PAYNE (Affiliate)
Date: 2022.08.11 13:10:40
+06'00'

Jennifer E. Payne
Division Leader
Environmental Protection and Compliance

Attachment(s): None

Copy: Nasim Jahan, USEPA, Region 6, jahan.nasim@epa.gov
Suzanna Perea, USEPA, Region 6, perea.suzanna@epa.gov
Susan Lucas Kamat, NMED, susan.lucaskamat@state.nm.us
Karen E. Armijo, NA-LA, karen.armijo@nnsa.doe.gov
Marcus Pinzel, NA-LA, marcus.pinzel@nnsa.doe.gov
William R. Mairson, Triad, ALDESHQSS, wrmairson@lanl.gov
Jeannette T. Hyatt, Triad, EWP, jhyatt@lanl.gov
Jennifer E. Payne, Triad, EPC-DO, jpayne@lanl.gov
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Steven L. Story, Triad, EPC-CP, story@lanl.gov
Sarah S. Holcomb, Triad, EPC-CP, sholcomb@lanl.gov
Terrill W. Lemke, Triad, EPC-CP, tlemke@lanl.gov
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eshqss-dcrm@lanl.gov
gc-esh@lanl.gov

ATTACHMENT 5: DISCHARGE MONITORING REPORTS

DMR Copy of Record

Form Approved OMB No. 2040-0004 expires on 07/31/2026

EPA may make all the information submitted through this form (including all attachments) available to the public without further notice to you. Do not use this online form to submit personal information (e.g., non-business cell phone number or non-business email address), confidential business information (CBI), or if you intend to assert a CBI claim on any of the submitted information. Pursuant to 40 CFR 2.203(a), EPA is providing you with notice that all CBI claims must be asserted at the time of submission. EPA cannot accommodate a late CBI claim to cover previously submitted information because efforts to protect the information are not administratively practicable since it may already be disclosed to the public. Although we do not foresee a need for persons to assert a claim of CBI based on the types of information requested in this form, if persons wish to assert a CBI claim we direct submitters to contact the [NPDES eReporting Help Desk](#) for further guidance. Please note that EPA may contact you after you submit this report for more information.

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2040-0004). Responses to this collection of information are mandatory in accordance with this permit and EPA NPDES regulations 40 CFR 122.41(l)(4)(i). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information are estimated to average 2 hours per outfall. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Permit

Permit #:
Major:

NMR050013
No

Permittee:
Permittee Address:

Triad National Security LLC
PO Box 1663
Los Alamos, NM 87545

Facility:
Facility Location:

LOS ALAMOS NATIONAL LABORATORY
PO BOX 1663
LOS ALAMOS, NM 87545

Permitted Feature:

085
External Outfall

Discharge:

085-A3
Log Storage and Handling

Report Dates & Status

Monitoring Period:

From 07/01/24 to 09/30/24

DMR Due Date:

11/30/24

Status:

NetDMR Validated

Considerations for Form Completion

Principal Executive Officer

First Name:
Last Name:

Title:

Telephone:

No Data Indicator (NODI)

Form 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					
00530	Solids, total suspended	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-24-31472

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:

2024-10-25 09:00 (Time Zone: -05:00)

Report Last Signed By

User:

TERRILLEMKE

Name:

Terrill Lemke

E-Mail:

tlemke@lanl.gov

Date/Time:

2024-10-30 13:40 (Time Zone: -05:00)

ATTACHMENT 6: ANNUAL REPORTS

NPDES FORM 6100-28		UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 ANNUAL REPORT FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY UNDER THE NPDES MULTI-SECTOR GENERAL PERMIT	FORM Approved OMB No. 2040-0300
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Permit Information

Report Year: 2021

Reporting Period: 1/1/2021 to 12/31/2021

NPDES ID: NMR050013

Facility Information

Facility Name: LOS ALAMOS NATIONAL LABORATORY

Facility Point of Contact

First NameMiddle InitialLast Name: TerrillLemke

Phone: 505-665-2397Ext.:

Email: tlemke@lanl.gov

Facility Mailing Address

Address Line 1: PO BOX 1663

Address Line 2: MS K490City: LOS ALAMOS

ZIP/Postal Code: 87545State: NM

County or Similar Division: Los Alamos

General Findings

Provide a summary of your past year's routine facility inspection documentation, including dates (see Part 3.1.6 of the permit). In addition, if you are an operator of an airport facility (Sector S) that is subject to the airport effluent limitations guidelines, and are complying with the MSGP Part 8.S.9 effluent limitation through the use of non-urea-containing deicers, provide a statement certifying that you do not use pavement deicers containing urea (e.g., "Urea was not used at [name of airport] for pavement deicing in the past year and will also not be used in 2021." (Note: Operators of airport facilities that are complying with Part 8.S.9 by meeting the numeric effluent limitation for ammonia do not need to include this statement.)

Los Alamos National Laboratory (LANL), operated by Triad National Security, LLC (Triad), consists of 8 active industrial sites that operate under 4 different Sectors (D, N, P, and AA). Permit coverage became effective on June 25, 2021. All 8 active sites were inspected according the schedules identified in the site-specific Stormwater Pollution Prevention Plans (SWPPP s). The 40 sites that qualify for a conditional exclusion for no exposure were inspected between November 1 through 22, 2021. A summary of inspections and associated corrective actions are included in Table 1 (attached).

Provide a summary of your past year's quarterly visual assessment documentation, including dates (see Part 3.2.3 of the permit).

Please see Table 2 (attached) for a summary of visual assessment documentation.

Provide a summary of your past year's corrective action and/or additional implementation measures (AIM) documentation (See Part 5.3 of the permit). (Note: If corrective action is not yet completed at the time of submission of this annual report, you must describe the status of any outstanding corrective action(s).) Note that you must modify your SWPPP based on the corrective actions and deadlines required under Part 5. Also describe any incidents of noncompliance in the past year or currently ongoing, or if none, provide a statement that you are in compliance with the permit.

Please see Table 1 (attached) for a summary of corrective action documentation, which specifies the frequency of each of the following by site: (1) unauthorized release or discharge, (2) control measures needing maintenance, repair or replacement, (3) control measures that were inadequate to meet the non-numeric effluent limitations, (4) effluent limitation guidelines exceedances, and (5) benchmark exceedances (AIM triggering events). One AIM Level 1 triggering event occurred, which was identified on January 18, 2022. Triad is investigating possible sources and appropriate corrective action for the parameter exceedance (Nitrate plus Nitrite Nitrogen) at outfall 022. All other corrective actions were completed per the schedule provided in Part 5.1.3. LANL is in compliance with the permit.

Attached files:

Name	Uploaded Date	Size
 2021 Annual Report Tables 1 and 2.docx (arptAttachment/762698)	01/24/2022	31.86 KB

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.

Certified By: Jennifer payne

Certifier Title: Division Leader

Certifier Email: jpayne@lanl.gov

Certified On: 01/24/2022 5:43 PM ET

Table 1. Summary of Routine Facility Inspections and Associated Corrective Actions

Facility	Status	Inspection Frequency	Inspections Conducted Between 6/25/2021 and 12/31/2021	Inspection Dates	Unauthorized Release or Discharge	Control Measures Needing Maintenance, Repairs, or Replacement or Installed Incorrectly	Control Measures Inadequate to Meet Non-Numeric Effluent Limitations	Incidents of Noncompliance (Effluent Limitation Guidelines Exceedances)	Average Exceeds or is Mathematically Certain to Exceed Benchmark Value (AIM Triggering Event)	AIM Level at end of Reporting Period
TA-3-29 Indoor TSD	No Exposure	Annually	1	11/8/2021	—	—	—	—	—	—
TA-3-29 Machine Shop	No Exposure	Annually	1	11/8/2021	—	—	—	—	—	—
TA-3-30 Warehouse	No Exposure	Annually	1	11/17/2021	1	—	—	—	—	—
TA-3-32 Metal Shop	No Exposure	Annually	1	11/17/2021	—	—	2	—	—	—
TA-3-34 Metal Shop	No Exposure	Annually	1	11/17/2021	1	—	1	—	—	—
TA-3-38 Metals Fabrication Shop	Active	Monthly	6	7/27/2021, 8/30/2021, 9/21/2021, 10/20/2021, 11/28/2021, 12/20/2021	—	—	4	—	—	Baseline
TA-3-39 and 102 Metal Shop	No Exposure	Annually	1	11/15/2021	3	1	4	—	—	—
TA-3-40, Room 131S Machine	No Exposure	Annually	1	11/17/2021	—	—	—	—	—	—
TA-3-66 Sigma Facility	No Exposure	Annually	1	11/17/2021	1	6	2	—	—	—

Facility	Status	Inspection Frequency	Inspections Conducted Between 6/25/2021 and 12/31/2021	Inspection Dates	Unauthorized Release or Discharge	Control Measures Needing Maintenance, Repairs, or Replacement or Installed Incorrectly	Control Measures Inadequate to Meet Non-Numeric Effluent Limitations	Incidents of Noncompliance (Effluent Limitation Guidelines Exceedances)	Average Exceeds or is Mathematically Certain to Exceed Benchmark Value (AIM Triggering Event)	AIM Level at end of Reporting Period
TA-3-2206 Warehouse	No Exposure	Annually	1	11/8/2021	—	—	—	—	—	—
TA-9-28 Heavy Equipment	No Exposure	Annually	1	11/10/2021	—	—	—	—	—	—
TA-9-0214 Metal Fabrication Shop	Active	Monthly	6	7/29/2021, 8/27/2021, 9/30/2021, 10/28/2021, 11/8/2021, 12/22/2021	2	—	1	—	—	Baseline
TA-14-23 Burn Cage	No Exposure	Annually	1	11/10/2021	—	—	—	—	—	—
TA-15-185 Phermex	No Exposure	Annually	1	11/10/2021	—	—	—	—	—	—
TA-15-313 Machine Shop	No Exposure	Annually	1	11/10/2021	—	—	—	—	—	—
TA-16 Stockpile Area	Active	Quarterly	2	9/23/2021, 11/8/2021	—	—	—	—	—	N/A
TA-22-52 Machine Shop	No Exposure	Annually	1	11/10/2021	—	—	—	—	—	—
TA-33-39 Machine Shop	No Exposure	Annually	1	11/10/2021	—	—	1	—	—	—
TA-33-113 Machine Shop	No Exposure	Annually	1	11/10/2021	—	—	—	—	—	—
TA-35-2 Machine Shop	No Exposure	Annually	1	11/17/2021	—	—	—	—	—	—
TA-35-125 Machine Shop	No Exposure	Annually	1	11/17/2021	—	—	1	—	—	—
TA-35-213 Target Fabrication	No Exposure	Annually	1	11/17/2021	—	1	1	—	—	—
TA-46-31 Machine Shop	No Exposure	Annually	1	11/10/2021	—	—	—	—	—	—
TA-46-77 Machine Shop	No Exposure	Annually	1	11/10/2021	—	—	1	—	—	—
TA-46-0624 Warehouse	No Exposure	Annually	1	11/8/2021	—	—	1	—	—	—
TA-48-8 Machine Shop	No Exposure	Annually	1	11/17/2021	—	—	1	—	—	—
TA-50-54 Machine Shop	No Exposure	Annually	1	11/17/2021	1	—	—	—	—	—
TA-50-69 WCRRF	No Exposure	Annually	1	11/8/2021	—	1	—	—	—	—
TA-53-2 Machine Shop	No Exposure	Annually	1	11/11/2021	—	—	—	—	—	—
TA-53-16/0726 Machine Shop	No Exposure	Annually	1	11/11/2021	—	—	1	—	—	—
TA-53-26 Machine Shop	No Exposure	Annually	1	11/11/2021	—	—	—	—	—	—
TA-54-38 Indoor TSD	No Exposure	Annually	1	11/8/2021	—	—	—	—	—	—
TA-54-38 Outdoor TSD	No Exposure	Annually	1	11/8/2021	—	1	—	—	—	—
TA-55-3 Metal Shop	No Exposure	Annually	1	11/22/2021	—	—	—	—	—	—
TA-55-PF-4 Indoor TSD	No Exposure	Annually	1	11/22/2021	—	—	—	—	—	—
TA-55-0005 Warehouse	No Exposure	Annually	1	11/22/2021	—	—	—	—	—	—
TA-55-0268 Warehouse	No Exposure	Annually	1	11/8/2021	—	—	1	—	—	—
TA-55-314 Warehouse	No Exposure	Annually	1	11/22/2021	—	—	—	—	—	—
TA-55-355 TSD	No Exposure	Annually	1	11/22/2021	—	—	—	—	—	—
TA-55-0430 Metal Shop	No Exposure	Annually	1	11/22/2021	—	—	—	—	—	—
TA-55-432 Warehouse	No Exposure	Annually	1	11/8/2021	—	—	—	—	—	—

Facility	Status	Inspection Frequency	Inspections Conducted Between 6/25/2021 and 12/31/2021	Inspection Dates	Unauthorized Release or Discharge	Control Measures Needing Maintenance, Repairs, or Replacement or Installed Incorrectly	Control Measures Inadequate to Meet Non-Numeric Effluent Limitations	Incidents of Noncompliance (Effluent Limitation Guidelines Exceedances)	Average Exceeds or is Mathematically Certain to Exceed Benchmark Value (AIM Triggering Event)	AIM Level at end of Reporting Period
TA-55 Outdoor TSD	No Exposure	Annually	1	11/22/2022	—	—	—	—	—	—
TA-60 Asphalt Batch Plant	Active	Monthly	6	7/12/2021, 8/2/2021, 9/1/2021, 10/3/2021, 11/9/2021, 12/20/2021	—	—	—	—	—	Baseline
TA-60 MRF	Active	Monthly	6	7/21/2021, 8/9/2021, 9/8/2021, 10/14/2021, 11/18/2021, 12/16/2021	—	—	—	—	—	N/A
TA-60 Roads and Grounds	Active	Monthly	6	7/22/2021, 8/18/2021, 9/27/2021, 10/19/2021, 11/29/2021, 12/20/2021	7	2	9	—	—	N/A
TA-60-1 Heavy Equipment Yard	Active	Monthly	6	7/23/2021, 8/23/2021, 9/17/2021, 10/15/2021, 11/15/2021, 12/9/2021	6	1	4	—	1	Level 1 – NO3+NO2-N
TA-60-2 Warehouse	Active	Monthly	6	7/21/2021, 8/24/2021, 9/22/2021, 10/28/2021, 11/16/2021, 12/14/2021	1	—	2	—	—	N/A
TA-63 Transuranic Waste Facility	No Exposure	Annually	1	11/8/2021	—	—	—	—	—	—

TA = Technical Area

TSD = Treatment, storage and disposal

WCRRF = Waste Characterization, Reduction, and Repackaging Facility

PF = Plutonium Facility

MRF = Material Recycling Facility

AIM = Additional Implementation Measures

N/A = Not applicable. Sector-specific requirements do not include benchmark monitoring.

Table 2. Summary of Quarterly Visual Assessments

Facility	Outfall	Outfall Type	Visual Assessments Performed between 7/1/2021 and 12/31/2021 (Q1 and Q2)	Visual Assessment Dates	Evidence of Pollutants Observed
TA-3-38 Metals Fabrication Shop	076	Monitored	1	7/19/2021	None
	077	Monitored	1	7/29/2021	None
TA-9-214 Metals Fabrication Shop	078	Monitored	0	-	-
TA-16 Stockpile Area	079	Monitored	0	-	-
TA-60 Asphalt Batch Plant	043	Monitored	0	-	-
TA-60 MRF	029	Monitored	1	7/6/2021	None
TA-60 Roads and Grounds	031	Monitored	1	8/3/2021	None
	030	SIDP to 031	1	7/21/2021	None
	032	Monitored	1	7/29/2021	None
	033	SIDP to 032	1	7/21/2021	None
	034	SIDP to 032	1	7/21/2021	None
	035	SIDP to 032	1	7/21/2021	None
	037	Monitored	0	-	-
	039	Monitored	0	-	-
	042	Monitored	1	8/5/2021	None
TA-60-1 Heavy Equipment Yard	022	Monitored	1	7/14/2021	None
	021	SIDP to 022	2	7/7/2021, 10/1/2021	None
	023	SIDP to 022	2	7/21/2021, 10/1/2021	None
	024	SIDP to 022	2	7/7/2021, 10/1/2021	None
	025	SIDP to 022	2	7/7/2021, 10/1/2021	None
TA-60-2 Warehouse	026	Monitored	1	7/6/2021	None
	027	SIDP to 026	1	10/1/2021	None
	028	SIDP to 026	2	7/7/2021, 10/1/2021	None
	075	Monitored	1	7/29/2021	None

TA = Technical Area

MRF = Material Recycling Facility

SIDP = Substantially Identical Discharge Point

Q = Monitoring Quarter

NPDES FORM 6100-28		UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 ANNUAL REPORT FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY UNDER THE NPDES MULTI-SECTOR GENERAL PERMIT	FORM Approved OMB No. 2040-0300
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Permit Information

Report Year: 2022

Reporting Period: 01/01/2022 to 12/31/2022

NPDES ID: NMR050013

Facility Information

Facility Name: LOS ALAMOS NATIONAL LABORATORY

Facility Point of Contact

First Name Middle Initial Last Name: Terrill Lemke

Phone: 505-665-2397 Ext.:

Email: tlemke@lanl.gov

Facility 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

General Findings

Provide a summary of your past year's routine facility inspection documentation, including dates (see Part 3.1.6 of the permit). In addition, if you are an operator of an airport facility (Sector S) that is subject to the airport effluent limitations guidelines, and are complying with the MSGP Part 8.5.9 effluent limitation through the use of non-urea-containing deicers, provide a statement certifying that you do not use pavement deicers containing urea (e.g., "Urea was not used at [name of airport] for pavement deicing in the past year and will also not be used in 2021." (Note: Operators of airport facilities that are complying with Part 8.5.9 by meeting the numeric effluent limitation for ammonia do not need to include this statement.)

Los Alamos National Laboratory (LANL), operated by Triad National Security, LLC (Triad), consists of 8 active industrial sites that operate under 4 different Sectors (D, N, P, and AA). Permit coverage became effective on June 25, 2021. All 8 active sites were inspected according to the schedules identified in the site-specific Stormwater Pollution Prevention Plans (SWPPPs). The 39 sites that qualify for a conditional exclusion for no exposure were inspected between November 17 and December 13, 2022. A summary of routine facility inspections, other walkdowns, and associated corrective actions are included in Table 1 (attached).

Provide a summary of your past year's quarterly visual assessment documentation, including dates (see Part 3.2.3 of the permit).

Please see Table 2 (attached) for a summary of visual assessment documentation. Outfalls reporting fewer than four visual assessments means no discharge occurred during one or more quarters.

Provide a summary of your past year's corrective action and/or additional implementation measures (AIM) documentation (See Part 5.3 of the permit). (Note: If corrective action is not yet completed at the time of submission of this annual report, you must describe the status of any outstanding corrective action(s).) Note that you must modify your SWPPP based on the corrective actions and deadlines required under Part 5. Also describe any incidents of noncompliance in the past year or currently ongoing, or if none, provide a statement that you are in compliance with the permit.

Please see Table 1 (attached) for a summary of corrective action documentation, which specifies the frequency of each of the following by site: (1) unauthorized release or discharge, (2) control measures needing maintenance, repair or replacement, (3) control measures that were inadequate to meet the non-numeric effluent limitations, (4) effluent limitation guidelines exceedances, and (5) benchmark exceedances (AIM triggering events). All corrective actions were completed per the schedule provided in Part 5.1.3. LANL is in compliance with the permit.

Attached files:

Name	Uploaded Date	Size
 2022 Annual Report Tables 1 and 2.pdf (arptAttachment/826643)	01/25/2023	138.04 KB

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.

Certified By: Jennifer payne

Certifier Title: Division Leader

Certifier Email: jpayne@lanl.gov

Certified On: 01/25/2023 6:21 PM ET

2022 MSGP Annual Report

Table 1. Summary of Routine Facility, Other Walkdowns and Associated Corrective Actions

Facility	Status	Required/ Recommended Inspection Frequency	Routine Facility Inspections and Other Walkdowns Conducted Between 1/1/2022 and 12/31/2022	Inspection Dates	Unauthorized Release or Discharge	Control Measures Needing Maintenance, Repairs, or Replacement or Installed Incorrectly	Control Measures Inadequate to Meet Non- Numeric Effluent Limitations	Incidents of Noncompliance (Effluent Limitation Guidelines Exceedances)	Average Exceeds or is Mathematically Certain to Exceed Benchmark Value (AIM Triggering Event)	AIM Level at end of Reporting Period
TA-03-0029 Indoor TSD	No Exposure	Annually	1	11/28/22	—	—	—	—	—	—
TA-03-0029 Machine Shop	No Exposure	Annually	1	11/28/22	—	—	—	—	—	—
TA-03-0030 Warehouse	No Exposure	Annually	6	4/20/22, 6/7/22, 7/12/22, 9/21/22, 12/1/22, 12/6/22	5	—	—	—	—	—
TA-03-0032 Metal Shop	No Exposure	Annually	1	11/28/22	—	—	—	—	—	—
TA-03-0034 Metal Shop	No Exposure	Annually	1	11/28/22	—	—	—	—	—	—
TA-03-0038 Metal Fabrication Shops	Active	Monthly	13	1/31/22, 2/14/22, 3/29/22, 4/21/22, 5/19/22, 6/13/22, 7/14/22, 8/25/22, 9/20/22, 10/19/22, 11/17/22, 12/13/22, 12/14/22	—	1	8	—	3	Zn - Baseline until Year 4, NO3+NO2-N - AIM Level 1, Al - AIM Level 2
TA-03-0039 & 0102 Metal Shop	No Exposure	Annually	5	4/18/22, 6/27/22, 7/19/22, 11/22/22, 11/28/22	2	—	5	—	—	—
TA-03-0040, Room 131S Machine Shop	No Exposure	Annually	2	3/28/22, 11/28/22	—	—	1	—	—	—
TA-03-0066 Sigma Complex	No Exposure	Annually	4	6/21/22, 9/30/22, 11/28/22, 12/5/22	1	2	9	—	—	—
TA-03-2206 Warehouse	No Exposure	Annually	1	11/28/22	—	—	—	—	—	—
TA-09-0028 Heavy Equipment Maintenance	No Exposure	Annually	2	4/20/22, 11/17/22	1	—	1	—	—	—
TA-09-0214 Metal Fabrication Shop	Active	Monthly	12	1/4/22, 2/28/22, 3/24/22, 4/21/22, 5/9/22, 6/7/22, 7/28/22, 8/25/22, 9/28/22, 10/25/22, 11/30/22, 12/20/22	1	—	1	—	—	Baseline
TA-14-0023 OBOD TSD (Burn Cage)	No Exposure	Annually	1	11/17/22	—	—	—	—	—	—
TA-15-0185 (PHERMEX)	No Exposure	Annually	1	11/17/22	—	—	—	—	—	—

2022 MSGP Annual Report

Facility	Status	Required/ Recommended Inspection Frequency	Routine Facility Inspections and Other Walkdowns Conducted Between 1/1/2022 and 12/31/2022	Inspection Dates	Unauthorized Release or Discharge	Control Measures Needing Maintenance, Repairs, or Replacement or Installed Incorrectly	Control Measures Inadequate to Meet Non- Numeric Effluent Limitations	Incidents of Noncompliance (Effluent Limitation Guidelines Exceedances)	Average Exceeds or is Mathematically Certain to Exceed Benchmark Value (AIM Triggering Event)	AIM Level at end of Reporting Period
TA-15-0313 Machine Shop	No Exposure	Annually	1	11/17/22	1	—	1	—	—	—
TA-16 Stockpile Area	Active	Quarterly	4	2/28/22, 4/21/22, 9/6/22, 12/20/22	—	—	1	—	—	N/A
TA-22-0052 Machine Shop	No Exposure	Annually	1	11/17/22	—	1	—	—	—	—
TA-33-0039 Machine Shop	No Exposure	Annually	1	11/29/22	—	—	—	—	—	—
TA-33-0113 Machine Shop	No Exposure	Annually	1	11/29/22	—	—	1	—	—	—
TA-35-0002 Machine Shop	No Exposure	Annually	1	11/29/22	—	—	—	—	—	—
TA-35-0125 Machine Shop	No Exposure	Annually	1	11/29/22	—	—	—	—	—	—
TA-35-0213 Target Fabrication Facility	No Exposure	Annually	1	11/29/22	—	—	4	—	—	—
TA-46-0031 Machine Shop	No Exposure	Annually	1	11/28/22	—	—	—	—	—	—
TA-46-0077 Machine Shop	No Exposure	Annually	4	6/28/22, 8/9/22, 9/12/22, 11/28/22	—	—	3	—	—	—
TA-46-0624 Warehouse	No Exposure	Annually	1	11/28/22	—	—	—	—	—	—
TA-48-0008 Machine Shop	No Exposure	Annually	1	11/29/22	—	—	1	—	—	—
TA-50-0054 Machine Shop	No Exposure	Annually	1	11/29/22	—	—	—	—	—	—
TA-50-0069 WCRRF	No Exposure	Annually	1	11/28/22	—	—	—	—	—	—
TA-53-0002 Machine Shop	No Exposure	Annually	2	12/8/22, 12/14/22	—	1	—	—	—	—
TA-53-0016/0726 Machine Shop	No Exposure	Annually	1	12/13/22	—	—	—	—	—	—
TA-53-0026 Machine Shop	No Exposure	Annually	1	12/13/22	—	—	1	—	—	—
TA-54-0038 Indoor TSD	No Exposure	Annually	1	11/28/22	—	—	—	—	—	—
TA-54-0038 Outdoor TSD	No Exposure	Annually	1	11/28/22	—	—	—	—	—	—
TA-55 PF-0004 Indoor TSD	No Exposure	Annually	1	11/30/22	—	—	—	—	—	—
TA-55-0005 Warehouse	No Exposure	Annually	1	11/30/22	—	—	—	—	—	—
TA-55-0268 Warehouse	No Exposure	Annually	1	11/30/22	—	—	—	—	—	—

2022 MSGP Annual Report

Facility	Status	Required/ Recommended Inspection Frequency	Routine Facility Inspections and Other Walkdowns Conducted Between 1/1/2022 and 12/31/2022	Inspection Dates	Unauthorized Release or Discharge	Control Measures Needing Maintenance, Repairs, or Replacement or Installed Incorrectly	Control Measures Inadequate to Meet Non- Numeric Effluent Limitations	Incidents of Noncompliance (Effluent Limitation Guidelines Exceedances)	Average Exceeds or is Mathematically Certain to Exceed Benchmark Value (AIM Triggering Event)	AIM Level at end of Reporting Period
TA-55-0314 Warehouse	No Exposure	Annually	1	11/30/22	—	—	—	—	—	—
TA-55-0355 TSD	No Exposure	Annually	1	11/30/22	—	—	1	—	—	—
TA-55-0430 Metal Shop	No Exposure	Annually	1	11/30/22	—	—	—	—	—	—
TA-55-0432 Warehouse	No Exposure	Annually	1	11/30/22	—	—	—	—	—	—
TA-55 Outdoor TSD	No Exposure	Annually	1	11/30/22	—	1	—	—	—	—
TA-60 Asphalt Batch Plant	Active	Monthly	14	1/4/22, 1/25/22, 2/8/22, 3/1/22, 4/6/22, 5/3/22, 6/1/22, 6/27/22, 7/5/22, 8/1/22, 9/6/22, 10/3/22, 11/2/22, 12/20/22	1	1	4	2	—	Baseline
TA-60 Material Recycling Facility	Active	Monthly	13	1/25/22, 2/14/22, 3/2/22, 4/21/22, 5/18/22, 6/14/22, 7/18/22, 8/15/22, 9/13/22, 10/13/22, 11/8/22, 12/19/22, 12/20/22	2	2	3	—	—	N/A
TA-60 Roads and Grounds and TA-61 Asphalt Staging Area	Active	Monthly	21	1/31/22, 2/15/22, 3/16/22, 4/26/22, 5/31/22, 6/27/22, 6/28/22, 7/5/22, 7/25/22, 8/11/22, 8/29/22, 9/13/22, 9/22/22, 9/28/22, 10/20/22, 11/2/22, 11/22/22, 11/29/22, 12/10/22, 12/16/22, 12/19/22	9	6	23	—	—	N/A
TA-60-0001 Heavy Equipment Yard	Active	Monthly	22	1/20/22, 2/22/22, 3/22/22, 3/24/22, 4/22/22, 4/26/22, 5/24/22, 6/9/22, 6/16/22, 6/24/22, 7/18/22, 7/20/22, 8/2/22, 8/9/22, 8/19/22, 9/6/22, 9/29/22, 10/28/22 11/08/22, 11/21/22, 12/14/22, 12/21/22	17	3	8	—	2	Zn and NO3+NO2-N – Baseline until Year 4, Al – AIM Level 1

2022 MSGP Annual Report

Facility	Status	Required/ Recommended Inspection Frequency	Routine Facility Inspections and Other Walkdowns Conducted Between 1/1/2022 and 12/31/2022	Inspection Dates	Unauthorized Release or Discharge	Control Measures Needing Maintenance, Repairs, or Replacement or Installed Incorrectly	Control Measures Inadequate to Meet Non- Numeric Effluent Limitations	Incidents of Noncompliance (Effluent Limitation Guidelines Exceedances)	Average Exceeds or is Mathematically Certain to Exceed Benchmark Value (AIM Triggering Event)	AIM Level at end of Reporting Period
TA-60-0002 Warehouse	Active	Monthly	12	1/20/22, 2/24/22, 3/22/22, 4/19/22, 5/17/22, 6/15/22, 7/12/22, 8/18/22, 9/20/22, 10/18/22, 11/16/22, 12/19/22	—	—	4	—	—	N/A
TA-63 Transuranic Waste Facility TSDs	No Exposure	Annually	1	11/28/22	—	—	—	—	—	—

TA = Technical Area
TSD = Treatment, storage and disposal
WCRRF = Waste Characterization, Reduction, and Repackaging Facility
PF = Plutonium Facility
AIM = Additional Implementation Measures
N/A = Not applicable. Sector-specific requirements do not include benchmark monitoring.


2022 MSGP Annual Report

Table 2. Summary of Quarterly Visual Assessments

Facility	Outfall	Outfall Type	Visual Assessments Performed between 1/1/2022 and 12/31/2022	Visual Assessment Dates	Evidence of Pollutants Observed
TA-03-0038 Metal Fabrication Shops	076	Monitored	2	6/23/22, 7/21/22	None
	077	Monitored	3	6/27/22, 8/1/22, 10/3/22	None
TA-09-0214 Metal Fabrication Shop	079	Monitored	1	7/5/22	None
TA-16 Stockpile Area	078	Monitored	1	8/2/22	None
TA-60 Asphalt Batch Plant	043	Monitored	3	6/27/22, 7/5/22, 8/1/22	None
TA-60 Material Recycling Facility	029	Monitored	4	3/18/22, 6/23/22, 7/21/22, 10/3/22	None
TA-60 Roads and Grounds and TA-61 Asphalt Staging Area	031	Monitored	3	6/27/22, 7/5/22, 10/17/22	None
	030	SIDP to 031	4	1/6/22, 6/20/22, 7/5/22, 10/3/22	None
	032	Monitored	3	6/23/22, 7/5/22, 10/6/22	None
	033	SIDP to 032	4	3/1/22, 6/20/22, 7/5/22, 10/3/22	None
	034	SIDP to 032	4	3/1/22, 6/20/22, 7/5/22, 10/3/22	None
	035	SIDP to 032	4	3/1/22, 6/23/22, 7/5/22, 10/3/22	None
	037	Monitored	2	6/28/22, 8/1/22	None
	039	Monitored	1	6/27/22	None
	042	Monitored	3	6/23/22, 7/5/22, 10/17/22	None
TA-60-0001 Heavy Equipment Yard	084	Monitored	0	-	None
	022	Monitored	5	1/3/22, 3/18/22, 6/27/22, 7/5/22, 10/6/22	None
	021	SIDP to 022	4	1/6/22, 6/20/22, 7/5/22, 10/3/22	None
	023	SIDP to 022	4	1/10/22, 6/20/22, 7/5/22, 10/3/22	None
	024	SIDP to 022	4	1/3/22, 6/20/22, 7/18/22, 10/3/22	None
TA-60-0002 Warehouse	025	SIDP to 022	4	1/10/22, 6/20/22, 7/5/22, 10/3/22	None
	026	Monitored	4	1/6/22, 6/23/22, 7/5/22, 10/3/22	None
	027	SIDP to 026	4	2/10/22, 6/20/22, 7/5/22, 10/3/22	None
	028	SIDP to 026	4	1/6/22, 6/20/22, 7/18/22, 10/3/22	None
	075	Monitored	3	6/23/22, 7/5/22, 10/3/22	None

TA = Technical Area

SIDP = Substantially Identical Discharge Point

NPDES FORM 6100-28		UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 ANNUAL REPORT FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY UNDER THE NPDES MULTI-SECTOR GENERAL PERMIT	FORM Approved OMB No. 2040-0004 Expires on 07/31/2026
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This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2040-0004). Responses to this collection of information are mandatory in accordance with this permit and EPA NPDES regulations (40 CFR 122.41(h)). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information is estimated to average 1 hour per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Permit Information

Report Year: 2023

Reporting Period: 01/01/2023 to 12/31/2023

NPDES ID: NMR050013

Facility Information

Facility Name: LOS ALAMOS NATIONAL LABORATORY

Facility Point of Contact

First Name Middle Initial Last Name: Terrill Lemke

Phone: 505-665-2397 **Ext.:**

Email: tlemke@lanl.gov

Facility 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

General Findings

Provide a summary of your past year's routine facility inspection documentation, including dates (see Part 3.1.6 of the permit). In addition, if you are an operator of an airport facility (Sector S) that is subject to the airport effluent limitations guidelines, and are complying with the MSGP Part 8.S.9 effluent limitation through the use of non-urea-containing deicers, provide a statement certifying that you do not use pavement deicers containing urea (e.g., "Urea was not used at [name of airport] for pavement deicing in the past year and will also not be used in 2021." (Note: Operators of airport facilities that are complying with Part 8.S.9 by meeting the numeric effluent limitation for ammonia do not need to include this statement.)

Los Alamos National Laboratory (LANL), operated by Triad National Security, LLC (Triad), consists of 8 active industrial sites that operate under 4 different Sectors (D, N, P, and AA). Permit coverage became effective on June 25, 2021. All 8 active sites were inspected according to the schedules identified in the site-specific Stormwater Pollution Prevention Plans (SWPPPs). The 38 sites that qualify for a conditional exclusion for no exposure were inspected between November 01 and December 13, 2023. A summary of routine facility inspections, other walkdowns, and associated corrective actions are included in Table 1 (attached).


Provide a summary of your past year's quarterly visual assessment documentation, including dates (see Part 3.2.3 of the permit).

Please see Table 2 (attached) for a summary of visual assessment documentation. Outfalls reporting fewer than four visual assessments means no discharge occurred during one or more quarters.

Provide a summary of your past year's corrective action and/or additional implementation measures (AIM) documentation (See Part 5.3 of the permit). (Note: If corrective action is not yet completed at the time of submission of this annual report, you must describe the status of any outstanding corrective action(s).) Note that you must modify your SWPPP based on the corrective actions and deadlines required under Part 5. Also describe any incidents of noncompliance in the past year or currently ongoing, or if none, provide a statement that you are in compliance with the permit.

Please see Table 1 (attached) for a summary of corrective action documentation, which specifies the frequency of each of the following by site: (1) unauthorized release or discharge, (2) control measures needing maintenance, repair or replacement, (3) control measures that were inadequate to meet the non-numeric effluent limitations, (4) effluent limitation guidelines exceedances, (5) benchmark exceedances (AIM triggering events), and AIM Level at the end of the reporting period. All corrective actions were completed per the schedule provided in Part 5.1.3. LANL is in compliance with the permit.

Attached files:

Name	Uploaded Date	Size
 2023 Annual Report Tables 1 and 2 FINAL 1-22-2024.docx (arptAttachment/864431)	01/22/2024	35.53 KB

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.

Certified By: Jennifer payne

Certifier Title: Division Leader

Certifier Email: jpayne@lanl.gov

Certified On: 01/30/2024 10:58 AM ET

2023 MSGP Annual Report

Table 1. Summary of Routine Facility Inspections, Other Walkdowns and Associated Corrective Actions

Facility	Status	Required/ Recommended Inspection Frequency	Routine Facility Inspections and Other Walkdowns Conducted Between 1/1/2023 and 12/31/2023	Inspection Dates	Unauthorized Release or Discharge	Control Measures Needing Maintenance, Repairs, or Replacement or Installed Incorrectly	Control Measures Inadequate to Meet Non- Numeric Effluent Limitations	Incidents of Noncompliance (Effluent Limitation Guidelines Exceedances)	Average Exceeds or is Mathematically Certain to Exceed Benchmark Value (AIM Triggering Event)	AIM Level at end of Reporting Period
TA-03-0029 Indoor TSD	No Exposure	Annually	1	11/16/23	—	—	—	—	—	—
TA-03-0029 Machine Shop	No Exposure	Annually	1	11/16/23	—	1	—	—	—	—
TA-03-0030 Warehouse	No Exposure	Annually	6	1/23/23, 3/27/23, 8/14/23, 8/15/23, 9/8/23, 11/7/23	5	—	—	—	—	—
TA-03-0032 Metal Shop	No Exposure	Annually	1	11/22/23	1	—	1	—	—	—
TA-03-0034 Metal Shop	No Exposure	Annually	1	11/22/23	—	—	1	—	—	—
TA-03-0038 Metal Fabrication Shops	Active	Monthly	13	1/24/23, 2/22/23, 3/21/23, 4/10/23, 4/11/23, 5/18/23, 6/14/23, 7/18/23, 8/24/23, 9/20/23, 10/25/23, 11/16/23, 12/11/23	1	1	2	—	0	Zn - Baseline until Year 4, NO3+NO2-N - AIM Level 1, AI - AIM Level 2
TA-03-0039 & 0102 Metal Shop	No Exposure	Annually	3	4/13/23, 5/15/23, 11/22/23	3	1	2	—	—	—
TA-03-0040, Room 131S Machine Shop	No Exposure	Annually	2	8/1/23, 11/22/23	—	—	1	—	—	—
TA-03-0066 Sigma Complex	No Exposure	Annually	7	6/1/23, 6/29/23, 8/7/23, 9/19/23, 11/6/23, 11/8/23, 11/22/23	3	—	8	—	—	—
TA-03-2206 Warehouse	No Exposure	Annually	1	11/16/23	—	—	1	—	—	—
TA-09-0028 Heavy Equipment Maintenance	No Exposure	Annually	1	11/8/23	—	—	—	—	—	—
TA-09-0214 Metal Fabrication Shop	Active	Monthly	14	1/31/23, 2/27/23, 3/30/23, 4/20/23, 5/22/23, 7/3/23, 7/25/23, 8/15/23, 8/17/23, 9/20/23, 9/26/23, 10/30/23, 11/22/23, 12/6/23	1	1	3	—	0	Baseline
TA-14-0023 OBOD TSD (Burn Cage)	No Exposure	Annually	1	11/8/23	—	—	—	—	—	—
TA-15-0185 (PHERMEX)	No Exposure	Annually	1	11/8/23	—	—	—	—	—	—

2023 MSGP Annual Report

Facility	Status	Required/ Recommended Inspection Frequency	Routine Facility Inspections and Other Walkdowns Conducted Between 1/1/2023 and 12/31/2023	Inspection Dates	Unauthorized Release or Discharge	Control Measures Needing Maintenance, Repairs, or Replacement or Installed Incorrectly	Control Measures Inadequate to Meet Non- Numeric Effluent Limitations	Incidents of Noncompliance (Effluent Limitation Guidelines Exceedances)	Average Exceeds or is Mathematically Certain to Exceed Benchmark Value (AIM Triggering Event)	AIM Level at end of Reporting Period
TA-15-0313 Machine Shop	No Exposure	Annually	1	11/8/23	—	—	2	—	—	—
TA-16 Stockpile Area	Active	Quarterly	4	3/30/23, 7/18/23, 9/19/23, 12/5/23	—	—	1	—	—	N/A
TA-22-0052 Machine Shop	No Exposure	Annually	1	11/8/23	—	1	—	—	—	—
TA-33-0039 Machine Shop	No Exposure	Annually	1	03/27/23	—	—	1	—	—	—
TA-33-0113 Machine Shop	No Exposure	Annually	1	12/13/23	—	—	—	—	—	—
TA-35-0002 Machine Shop	No Exposure	Annually	1	11/21/23	—	—	—	—	—	—
TA-35-0125 Machine Shop	No Exposure	Annually	3	3/28/23, 6/12/23, 11/21/23	—	—	2	—	—	—
TA-35-0213 Target Fabrication Facility	No Exposure	Annually	2	11/16/23, 11/21/23	—	—	1	—	—	—
TA-46-0031 Machine Shop	No Exposure	Annually	2	8/1/23, 11/21/23	—	—	3	—	—	—
TA-46-0077 Machine Shop	No Exposure	Annually	1	11/21/23	—	—	—	—	—	—
TA-46-0624 Warehouse	No Exposure	Annually	1	11/16/23	—	—	5	—	—	—
TA-48-0008 Machine Shop	No Exposure	Annually	1	11/21/23	—	—	—	—	—	—
TA-50-0054 Machine Shop	No Exposure	Annually	2	11/15/23, 11/21/23	—	—	1	—	—	—
TA-50-0069 WCRRF	No Exposure	Annually	1	11/16/23	—	—	1	—	—	—
TA-53-0002 Machine Shop	No Exposure	Annually	1	11/1/23	—	—	—	—	—	—
TA-53-0016/0726 Machine Shop	No Exposure	Annually	1	11/1/23	—	—	1	—	—	—
TA-53-0026 Machine Shop	No Exposure	Annually	1	11/1/23	—	1	1	—	—	—
TA-54-0038 Indoor TSD	No Exposure	Annually	1	11/16/23	—	—	—	—	—	—
TA-54-0038 Outdoor TSD	No Exposure	Annually	1	11/16/23	—	1	2	—	—	—
TA-55 PF-0004 Indoor TSD	No Exposure	Annually	1	11/29/23	—	—	4	—	—	—
TA-55-0005 Warehouse	No Exposure	Annually	1	11/29/23	—	—	—	—	—	—
TA-55-0268 Warehouse	No Exposure	Annually	1	11/29/23	—	—	—	—	—	—
TA-55-0314 Warehouse	No Exposure	Annually	1	11/29/23	—	—	—	—	—	—

2023 MSGP Annual Report

Facility	Status	Required/ Recommended Inspection Frequency	Routine Facility Inspections and Other Walkdowns Conducted Between 1/1/2023 and 12/31/2023	Inspection Dates	Unauthorized Release or Discharge	Control Measures Needing Maintenance, Repairs, or Replacement or Installed Incorrectly	Control Measures Inadequate to Meet Non- Numeric Effluent Limitations	Incidents of Noncompliance (Effluent Limitation Guidelines Exceedances)	Average Exceeds or is Mathematically Certain to Exceed Benchmark Value (AIM Triggering Event)	AIM Level at end of Reporting Period
TA-55-0355 TSD	No Exposure	Annually	1	11/29/23	—	—	1	—	—	—
TA-55-0430 Metal Shop	No Exposure	Annually	1	11/29/23	—	—	—	—	—	—
TA-55-0432 Warehouse	No Exposure	Annually	1	11/29/23	—	—	—	—	—	—
TA-55 Outdoor TSD	No Exposure	Annually	1	11/29/23	—	—	—	—	—	—
TA-60 Asphalt Batch Plant	Active	Monthly	12	1/9/23, 2/2/23, 3/1/23, 4/5/23, 5/8/23, 6/12/23, 7/10/23, 8/8/23, 9/8/23, 10/5/23, 11/6/23, 12/19/23	1	—	—	—	0	Baseline
TA-60 Material Recycling Facility	Active	Monthly	15	1/10/23, 2/6/23, 3/7/23, 4/10/23, 5/16/23, 6/13/23, 7/13/23, 8/14/23, 8/25/23, 9/19/23, 10/16/23, 10/18/23, 11/6/23, 12/20/23, 12/22/23	5	1	1	—	—	N/A
TA-60 Roads and Grounds and TA-61 Asphalt Staging Area	Active	Monthly	15	1/13/23, 2/9/23, 3/27/23, 4/25/23, 5/10/23, 5/30/23, 6/28/23, 7/28/23, 8/9/23, 8/28/23, 9/20/23, 10/20/23, 11/7/23, 11/17/23, 12/21/23	5	3	19	—	—	N/A
TA-60-0001 Heavy Equipment Yard	Active	Monthly	18	1/25/23, 2/21/23, 2/23/23, 3/27/23, 4/5/23, 4/24/23, 4/28/23, 5/18/23, 6/9/23, 6/27/23, 7/20/23, 8/29/23, 9/14/23, 10/27/23, 11/9/23, 12/11/23, 12/12/23, 12/18/23	11	4	14	—	1	Zn and NO3+NO2-N – Baseline until Year 4, AI – AIM Level 2
TA-60-0002 Warehouse	Active	Monthly	15	1/19/23, 2/14/23, 3/23/23, 4/12/23, 5/4/23, 5/16/23, 5/24/23, 6/21/23, 7/18/23, 8/21/23, 9/19/23, 10/11/23, 11/15/23, 12/19/23	3	2	2	—	—	N/A
TA-63 Transuranic Waste Facility TSDs	No Exposure	Annually	2	9/21/23, 11/16/23	1	—	1	—	—	—

TA = Technical Area
TSD = Treatment, storage and disposal
WCRRF = Waste Characterization, Reduction, and Repackaging Facility
PF = Plutonium Facility
AIM = Additional Implementation Measures
N/A = Not applicable. Sector-specific requirements do not include benchmark monitoring.

2023 MSGP Annual Report

Table 2. Summary of Quarterly Visual Assessments

Facility	Outfall	Outfall Type	Visual Assessments Performed between 1/1/2023 and 12/31/2023	Visual Assessment Dates	Evidence of Pollutants Observed
TA-03-0038 Metal Fabrication Shops	076	Monitored	2	5/31/23, 7/27/2023	None
	077	Monitored	0	-	None
TA-09-0214 Metal Fabrication Shop	079	Monitored	0	-	None
TA-16 Stockpile Area	078	Monitored	0	-	None
TA-60 Asphalt Batch Plant	043	Monitored	0	-	None
TA-60 Material Recycling Facility	029	Monitored	3	1/4/23, 5/16/23, 7/27/23	None
TA-60 Roads and Grounds and TA-61 Asphalt Staging Area	031	Monitored	1	8/29/23	None
	030	SIDP to 031	4	2/23/23, 5/17/23, 8/9/23, 10/3/23	None
	032	Monitored	3	3/3/23, 5/31/23, 8/8/23	None
	033	SIDP to 032	4	2/8/23, 5/20/23, 8/9/23, 10/3/23	None
	034	SIDP to 032	4	2/8/23, 5/17/23, 8/9/23, 10/3/23	None
	035	SIDP to 032	4	2/8/23, 5/20/23, 8/9/23, 10/3/23	None
	037	Monitored	0	-	None
	039	Monitored	0	-	None
	042	Monitored	3	3/9/23, 9/12/23, 12/22/23	None
TA-60-0001 Heavy Equipment Yard	084	Monitored	0	-	None
	022	Monitored	3	3/3/23, 5/16/23, 8/8/23	None
	021	SIDP to 022	4	1/5/23, 5/16/23, 7/24/23, 10/3/23	None
	023	SIDP to 022	4	1/5/23, 5/16/23, 7/28/23, 10/3/23	None
	024	SIDP to 022	4	1/5/23, 5/16/23, 7/24/23, 10/3/23	None
TA-60-0002 Warehouse	025	SIDP to 022	4	1/5/23, 5/16/23, 7/24/23, 10/3/23	None
	026	Monitored	4	1/4/23, 5/15/23, 7/25/23, 10/3/23	None
	027	SIDP to 026	4	1/5/23, 5/16/23, 7/28/23, 10/3/23	None
	028	SIDP to 026	4	1/5/23, 5/16/23, 7/24/23, 10/3/23	None
	075	Monitored	3	2/9/23, 5/22/23, 8/8/23	None

TA = Technical Area

SIDP = Substantially Identical Discharge Point

ATTACHMENT 7: ROUTINE FACILITY INSPECTIONS

MSGP Record Print - Non-Employee Related Questionnaire (Clone) ⓘ

Questionnaire

Details

Date Of Response *	08/01/2024	Questionnaire *	MSGP RFI TA-69 Wood Yard (MSGP FAC TA-69 Wood Yard)
Source	Environment Inspection/Survey Program	QRHId	3264
Location	TA-69 Wood Yard(MSGP-0087)	Source Id	MSGP 2024 TA69 WY
Created By	Banar, Alethea (108243)		

Responses

1. Describe the weather at time of inspection and document the temperature (F).

75 degrees and cloudy, chance of showers

2.

WITHIN THE FACILITY BOUNDARY

3. Is the facility free of previously unidentified discharges from and/or pollutants that have occurred since the last inspection? If No, describe.

• Yes

4. Has a CAR been previously initiated for discharge identified in the previous question?

• N/A

5. Is the facility free of discharge of pollutants at the time of inspection? If No, describe.

• Yes

6. Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If No, describe.

• Yes

7.

OUTFALL INSPECTION (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant question comment).

8. Monitored Outfall 085: Is the outfall free of evidence of erosion; free of evidence of pollutants in discharges and/or Receiving Water; AND free of any unauthorized non-stormwater discharges?

• Yes

9. Monitored Outfall 085: Are flow dissipation devices operating effectively?

• Yes

10.

CONTROL MEASURES

11. Select control measures inspected. (Identify needed maintenance, repairs, failed control measures that need replacement, or a description of corrective action in text box below.)

- Asphalt Berm 6900103040002
- Asphalt Berm 6900103040003
- Asphalt Berm 6900103040014
- Culvert 6900104040006
- Earthen Berm 6900103010001
- Infiltration Basin 6900105060017
- Infiltration Basin 6900105060018
- Rock Channel/Swale 6900104030004
- Rock Channel/Swale 6900104030005
- Rock Channel/Swale 6900104030015
- Rock Channel/Swale 6900104030016
- Rock Check Dam 6900106010007
- Rock Check Dam 6900106010008
- Rock Check Dam 6900106010009
- Rock Check Dam 6900106010010
- Rock Check Dam 6900106010011
- Rock Check Dam 6900106010012
- Rock Check Dam 6900106010013

Very minor rilling along longest flow path on asphalt millings pad. No discharges of sediments.

12.

AREA/ACTIVITY EXPOSED TO STORMWATER (identify needed maintenance or a description of corrective actions in relevant question comment).

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

• Yes

Some logs are stored on site, not many.

14. Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.

• N/A

15. Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.

• Yes

Some logs are on site. No other product on site.

16. Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.

• N/A

17. Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.

• Yes

18. Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If No, describe.

• Yes

No equipment on site yet but controls are adequate for future operations.

19. Fueling areas: controls adequate (appropriate, effective, and operating)? If No, describe.

• N/A

20. Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If No, describe.

• N/A

21. Machinery: controls adequate (appropriate, effective, and operating)? If No, describe.

• N/A

22. Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If No, describe.

• N/A

No waste handling or disposal activities conducted on site as of yet.

23. Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If No, describe.

• Yes

24. Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If No, describe.

• Yes

There is no run-on stormwater that enters this site due to the stormwater control measures (berms).

25. Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If No, describe.

N/A gk

8/12/24

26. Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If No, describe.

• Yes

Site is stabilized.

27. Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If No, describe.

· Yes

28. Leaks and spills: controls adequate (appropriate, effective, and operating)? If No, describe.

· N/A

29. Sector A: Wood processing, transport or treated wood storage areas: controls adequate (appropriate, effective, and operating)? If No, describe.

· Yes

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

· Yes

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

· Yes

32. Additional information:

33. Date inspection completed.

08/01/2024

34. Time inspection completed.

1000

35. Select inspector name.

Knight, Jacob

36. Signature/Name

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



37.

Certification Statement

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information 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."

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

38. Print name and title: Richard Nieto Program Manager


39. Signature: **RICHARD NIETO**
(Affiliate)

Digitally signed by RICHARD
NIETO (Affiliate)
Date: 2024.08.12 12:38:14 -06'00'

40. Date: 8/12/24

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Documents

View Documents for this Questionnaire 

Description

Document Type

Document Date

MSGP Record Print - Non-Employee Related Questionnaire (Clone) ⓘ

Questionnaire

Details

Date Of Response *	11/12/2024	Questionnaire *	MSGP RFI TA-69 Wood Yard (MSGP FAC TA-69 Wood Yard)
Source	Environment Inspection/Survey Program	QRHid	4853
Location	TA-69 Wood Yard(MSGP-0087)	Source Id	MSGP 2024 TA69 WY
Created By	Knight, Jacob (166552)		

Responses

1. Describe the weather at time of inspection and document the temperature (F).

48 degrees F and partly cloudy

2.

WITHIN THE FACILITY BOUNDARY

3. Is the facility free of previously unidentified discharges from and/or pollutants that have occurred since the last inspection? If No, describe.

• Yes

4. Has a CAR been previously initiated for discharge identified in the previous question?

• N/A

5. Is the facility free of discharge of pollutants at the time of inspection? If No, describe.

• Yes

6. Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If No, describe.

• Yes

Some clean snow melt discharge was observed

7.

OUTFALL INSPECTION (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant question comment).

8. Monitored Outfall 085: Is the outfall free of evidence of erosion; free of evidence of pollutants in discharges and/or Receiving Water; AND free of any unauthorized non-stormwater discharges?

• Yes

9. Monitored Outfall 085: Are flow dissipation devices operating effectively?

• Yes

10.

CONTROL MEASURES

11. Select control measures inspected. (Identify needed maintenance, repairs, failed control measures that need replacement, or a description of corrective action in text box below.)

- Asphalt Berm 6900103040002
- Asphalt Berm 6900103040003
- Asphalt Berm 6900103040014
- Cultvert 6900104040006
- Earthen Berm 6900103010001
- Infiltration Basin 6900105060017
- Infiltration Basin 6900105060018
- Rock Channel/Swale 6900104030004
- Rock Channel/Swale 6900104030005
- Rock Channel/Swale 6900104030015
- Rock Channel/Swale 6900104030016
- Rock Check Dam 6900106010007
- Rock Check Dam 6900106010008
- Rock Check Dam 6900106010009
- Rock Check Dam 6900106010010
- Rock Check Dam 6900106010011
- Rock Check Dam 6900106010012
- Rock Check Dam 6900106010013

12.

AREA/ACTIVITY EXPOSED TO STORMWATER (identify needed maintenance or a description of corrective actions in relevant question comment).

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

· Yes

14. Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.

· Yes

15. Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.

· N/A

Currently there is no wood product on site. Equipment only.

16. Liquid tank storage/secondary containment: controls adequate (appropriate, effective, and operating)? If "No" describe.

· N/A

17. Industrial processing and finished product storage areas: controls adequate (appropriate, effective, and operating)? If "No" describe.

· Yes

18. Equipment operation and maintenance areas: controls adequate (appropriate, effective, and operating)? If No, describe.

· Yes

19. Fueling areas: controls adequate (appropriate, effective, and operating)? If No, describe.

· Yes

Mobile refuelers come on site as needed to refuel equipment.

20. Outdoor vehicle and equipment washing areas: controls adequate (appropriate, effective, and operating)? If No, describe.

· N/A

21. Machinery: controls adequate (appropriate, effective, and operating)? If No, describe.

· Yes

22. Waste handling and disposal areas: controls adequate (appropriate, effective, and operating)? If No, describe.

· N/A

No bins necessary on site.

23. Erodible areas/construction: controls adequate (appropriate, effective, and operating)? If No, describe.

· Yes

24. Locations and sources of run-on to the site: controls adequate (appropriate, effective, and operating)? If No, describe.

· Yes

Berms are functional

25. Salt storage piles or pile containing salt: controls adequate (appropriate, effective, and operating)? If No, describe.

· N/A

26. Dust generation and vehicle tracking: controls adequate (appropriate, effective, and operating)? If No, describe.

· Yes

Site is stabilized with asphalt millings

27. Housekeeping (Industrial materials/residues/trash in contact with stormwater): controls adequate (appropriate, effective, and operating)? If No, describe.

· Yes

28. Leaks and spills: controls adequate (appropriate, effective, and operating)? If No, describe.

☒ Yes

Spill kits in machinery

29. Sector A: Wood processing, transport or treated wood storage areas: controls adequate (appropriate, effective, and operating)? If No, describe.

☒ Yes

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

☒ Yes

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

☒ Yes

32. Additional information:

33. Date inspection completed.

11/12/2024

34. Time inspection completed.

1430

35. Select inspector name.

Knight, Jacob

36. Signature/Name

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

J. Knight

37.

Certification Statement

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information 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."

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

38. Print name and title: Richard Nieto FMO

39. Signature: RICHARD NIETO
(Affiliate)

Digitally signed by RICHARD
NIETO (Affiliate)
Date: 2024.11.22 08:55:46 -07'00'

40. Date:

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Documents

View Documents for this Questionnaire

Description

Document Type

Document Date

ATTACHMENT 8: QUARTERLY VISUAL ASSESSMENTS

NMR050013 MSGP 2021

TA-69 Wood Yard

Quarterly Visual Assessment Form, First Quarter, July through September 2024

I certify under penalty of law that this document and all attachments 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 Stormwater Permitting/Compliance Team Leader
Los Alamos National Laboratory

TERRILL LEMKE
(Affiliate)

Digitally signed by TERRILL
LEMKE (Affiliate)
Date: 2024.12.12 16:54:39 -07'00'

Manager Signature

Facility Name	Sampling Station	Inspection #
TA-69 Wood Yard	MSGP08501	MSGP-QRHId-3154

Questionnaire

Details

Date Of Response *	07/19/2024	Questionnaire *	MSGP Visual Assessment (MSGP-VISUAL)
Source	Environment Inspection/Survey Program	QRHId	3154
Location	MSGP08501(MSGP-0088)	Source Id	MSGP 2024 VA JulSep
Created By	Shendo, Marwin (175810)		

Responses

1. Document the monitoring period (e.g., Jan-Feb-Mar).

jul-sept

2. Document the Date/Time Discharge began (mm/dd/yy hh:mm).

7/18/24 @ 16:56

3. Document the Date/Time sample collected (mm/dd/yy hh:mm).

7/18/24 @ 16:56

4. Document the Date/Time sample visually assessed (mm/dd/yy hh:mm).

7/19/24 @ 11:35

5. Document the nature of discharge (e.g., rain, snowmelt) and the TOTAL amount (in).

rain 0.37

6. Sample collected in first 30 minutes of discharge? If No or unknown, provide a reason.

- Yes

7. Color in sample? If Yes, describe.

- Yes

brown

8. Odor in sample? If Yes, describe (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas).

· Yes

musty

9. Diminished clarity of sample? If Yes, describe (e.g., slightly cloudy, cloudy, opaque).

· Yes

cloudy

10. Floating solids in sample? If Yes, describe if raw or waste material(s).

· No

11. Settled solids in sample? If Yes, describe (e.g., fine, coarse).

· Yes

fine

12. Suspended solids in sample? If Yes, describe (e.g., fine, coarse).

· No

13. Foam in sample after gently shaking? If Yes, describe foam color and location (e.g., on the surface' or 'in the sample').

· No

14. Oil sheen on sample? If Yes, describe color and thickness (e.g. flecks, globs).

· No

15. Other obvious indicators of stormwater pollution in sample? If Yes, describe.

· No

16. Additional information:

n/a

17. Date inspection completed.

07/19/2024

18. Time inspection completed.

11:35

19. Select inspector name.

Shendo, Marwin

20. Signature/Name

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



21.

Certification Statement

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

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

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

23. Signature and Date: (See signature on file)

NMR050013 MSGP 2021

TA-69 Wood Yard

Quarterly Visual Assessment Form, Second Quarter, October through December 2024

I certify under penalty of law that this document and all attachments 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 Stormwater Permitting/Compliance Team Leader
Los Alamos National Laboratory

TERRILL LEMKE
(Affiliate)

 Digitally signed by TERRILL
LEMKE (Affiliate)
Date: 2024.12.12 16:55:45 -07'00'

Manager Signature

Facility Name	Sampling Station	Inspection #
TA-69 Wood Yard	MSGP08501	MSGP-QRHId-4445

Questionnaire

Details

Date Of Response *	10/23/2024	Questionnaire *	MSGP Visual Assessment (MSGP-VISUAL)
Source	Environment Inspection/Survey Program	QRHid	4445
Location	MSGP08501(MSGP-0088)	Source Id	MSGP 2024 VA OctDec
Created By	Knight, Jacob (166552)		

Responses

1. Document the monitoring period (e.g., Jan-Feb-Mar).

Oct-Dec

2. Document the Date/Time Discharge began (mm/dd/yy hh:mm).

10/18/24 22:49

3. Document the Date/Time sample collected (mm/dd/yy hh:mm).

10/18/24 22:49

4. Document the Date/Time sample visually assessed (mm/dd/yy hh:mm).

10/23/24 13:04

5. Document the nature of discharge (e.g., rain, snowmelt) and the TOTAL amount (in).

Rain 0.96 in.

6. Sample collected in first 30 minutes of discharge? If No or unknown, provide a reason.

· Yes

7. Color in sample? If Yes, describe.

· Yes

Light yellow

8. Odor in sample? If Yes, describe (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas).

· No

9. Diminished clarity of sample? If Yes, describe (e.g., slightly cloudy, cloudy, opaque).

· Yes

Very slight cloudiness

10. Floating solids in sample? If Yes, describe if raw or waste material(s).

· No

11. Settled solids in sample? If Yes, describe (e.g., fine, course).

· Yes

A very small amount of fine sediment

12. Suspended solids in sample? If Yes, describe (e.g., fine, course).

· No

13. Foam in sample after gently shaking? If Yes, describe foam color and location (e.g., 'on the surface' or 'in the sample').

· No

14. Oil sheen on sample? If Yes, describe color and thickness (e.g. flecks, globs).

· No

15. Other obvious indicators of stormwater pollution in sample? If Yes, describe.

· No

16. Additional information:

17. Date inspection completed.

10/23/2024

18. Time inspection completed.

13:04

19. Select inspector name.

Knight, Jacob

20. Signature/Name

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



21.

Certification Statement

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

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

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

23. Signature and Date: (See signature on file)

[Go To Top](#)

Documents

View Documents for this Questionnaire ▾

Description

Document Type

Document Date

ATTACHMENT 9: CORRECTIVE ACTION DOCUMENTATION AND CERTIFICATION

ATTACHMENT 10: SCHEDULED MAINTENANCE LOG

SCHEDULED MAINTENANCE LOG

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

ATTACHMENT 11: TRAINING DOCUMENTATION

Information on employees receiving training is available upon request.

MSGP TRAINING FOR TA-69 Wood Yard

Presented by Jacob Knight and Kiri Baca

August 2024

What is the MSGP?

- Multi-Sector General Permit - A nation-wide general permit
 - Applies to only those areas of the US where EPA is identified as the permitting authority (Like here in NM)
- Authorizes the discharge of stormwater from specific industrial activities (Sectors) to meet Clean Water Act Provisions
 - Wood Yard Industrial activities include:
 - Log storage and handling
- EPA is the regulatory authority in New Mexico
 - NM Environment Department is delegated authority to conduct inspections

What are industrial activity areas?

- Fueling areas
- Material storage
- Locations where trash and debris are stored
- Recycle bins
- Locations of material handling equipment
- Equipment repair
- Loading/unloading areas

Purpose of the MSGP

- **Minimize** off-site migration of pollutants
 - Sediment is the #1 pollutant of waterbodies on the US
 - Stormwater runoff is a **major** factor in water quality
 - At LANL sediment, spills and trash are the major pollutants
 - Proactive approach will prevent reactive requirement to address conditions requiring corrective action



Stormwater Control Measures (SCMs) or Best Management Practices (BMPs)

- Select, design, install and implement SCMs to meet:
 - Non-numeric technology-based effluent limits, including:
 - Minimizing exposure of manufacturing, processing, and material storage areas to rain, snow, snowmelt, and stormwater
 - Good housekeeping
 - Maintenance
 - Spill prevention and response
 - Erosion and sediment control
 - Divert, infiltrate, reuse, contain, or otherwise reduce stormwater runoff
 - Training employees
 - Ensuring unallowable non-stormwater discharges are prevented
 - Minimizing dust generation and vehicle tracking

Stormwater Pollution Prevention Plan (SWPPP)

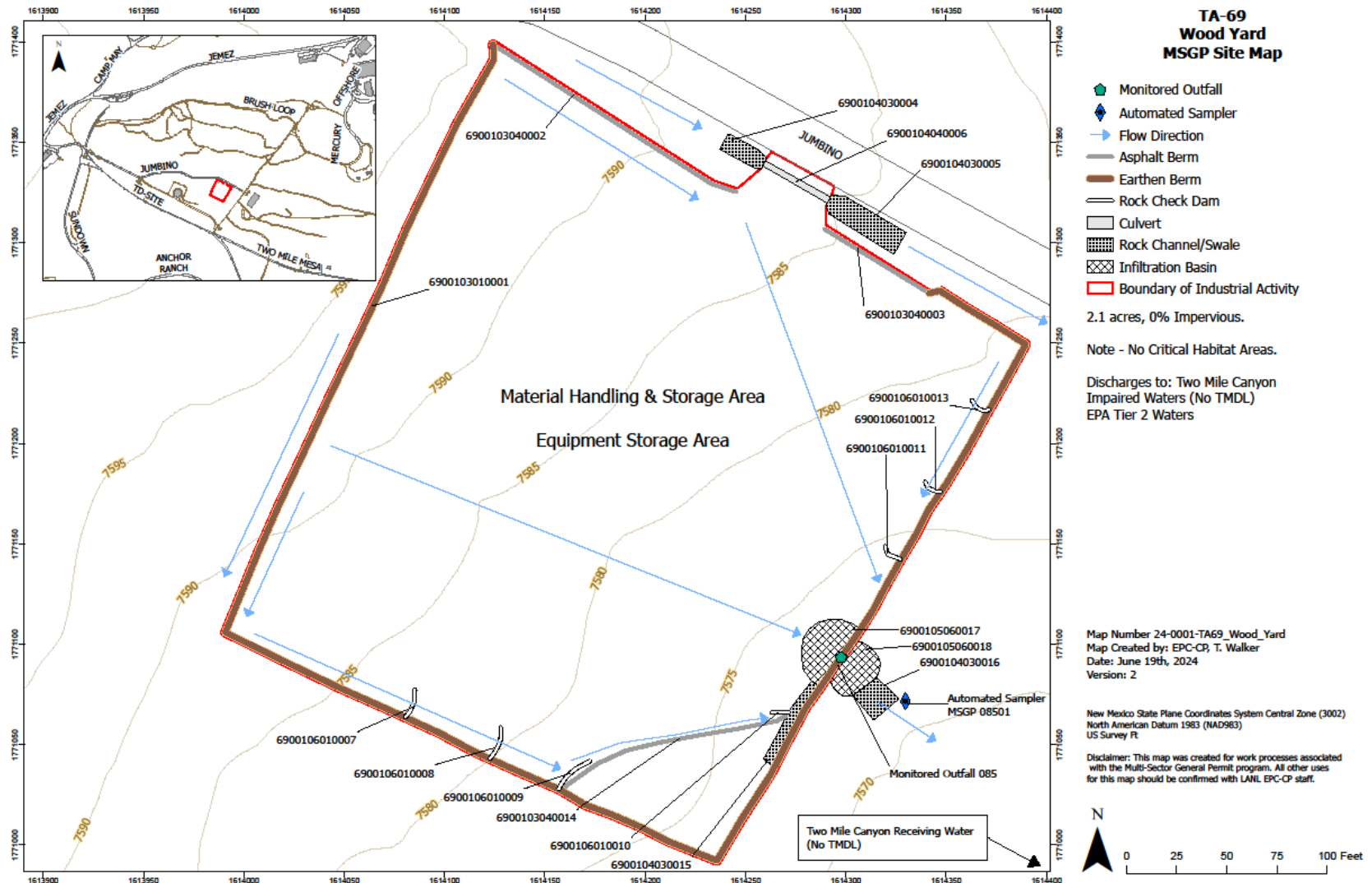
- Facility-specific plan on how permit requirements will be met
- All personnel implementing the MSGP must be trained to it
- Identifies potential pollutant sources
- Describes stormwater controls used to reduce/eliminate pollutants in discharge
- Identifies the Pollution Prevention Team
- Contains procedures used to comply with terms/conditions of the MSGP

TA-69 Wood Yard Sampling Requirements

- Due to sector requirements and Impaired Water (IW) requirements for Two Mile Canyon, the following are sampled for at the TA-69 Wood Yard:
 - Copper
 - Total Recoverable Aluminum
 - Gross Alpha
 - Total Suspended Solids (TSS)
 - PCBs

Stormwater Pollution Prevention Plan (SWPPP)

• Site Map



When Do I Perform A Routine Facility Inspection (RFI)?

- 💧 Monthly
- 💧 At least once a calendar year during a stormwater discharge

Evaluation includes:

- 💧 Weather at time of inspection
- 💧 Discharges or evidence of discharges from the site
 - New discharges?
 - Evidence of, or potential for pollutants to enter the drainage system?
- 💧 Monitored outfalls and Substantially Identical Discharge Points (SIDPs)
 - Evidence of erosion?
 - Evidence of pollutants in discharge like trash?
 - Flow dissipation devices operating effectively?



What Does An RFI Cover? (continued)

- Stormwater Control Measures
 - Are they operating effectively?
 - Are they in need of maintenance, repair, replacement?
- Examples



💧 Stormwater Control Measures (SCM)

- Examples – corrective action needed



Corrective Action (CA)

Definition: Any action taken, or required to be taken, to

- (1) repair, modify, or replace any stormwater control used at the site;
- (2) clean up and dispose of spills, releases, or other deposits found on the site;
- (3) satisfy any permit condition or SWPPP requirement

Conditions Requiring Corrective Action

- Unauthorized release or discharge
- Control measures are not stringent enough for discharge to meet applicable water quality standards or non-numeric effluent limits
- The average of four quarterly monitoring results exceeds an applicable benchmark (in this case it's Total Suspended Solids)
 - Additional Implementation Measure (AIM) triggering event
- Control measures are not being properly operated and maintained
- Whenever a visual assessment shows evidence of stormwater pollution
- Facility operations change resulting in an increase in the quantities of pollutants discharged

Corrective Action Time Frames

- 2 time-frames identified in the MSGP: Immediate & Subsequent
- Immediate action means right away (same day) once a CA is identified
- What constitutes immediate action?
 - Fixing the problem
 - Installation of temporary controls (gravel bags, covering, initial clean-up)
 - Some type of physical action to address or stabilize the situation
- For minor conditions, immediate action is often sufficient, and no additional action is necessary

Subsequent Corrective Action

- 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
- Roads and grounds may get involved (standing work order) to initiate a follow up action or permanent solution after the immediate action is completed (e.g., procurement and installation of a new SCM, maintenance/replacement of SCMs)
- Any corrective action resulting in a change to a SCM or procedure documented in the SWPPP will require SWPPP modification within 14 days of completing the corrective action
 - Contact your DEP (Jacob Knight) when corrective actions are completed so I can close out the open corrective action (emails go out on these).

Corrective Action Documentation

- Within 24 hours of discovery enter a description of the condition requiring corrective action and the date the condition was identified in the Corrective Action Report (CAR) database (DEP responsibility).
- Document immediate actions taken to minimize or prevent the discharge of pollutants
- Document dates when each corrective action was initiated, completed, or is expected to be completed
- If the corrective action cannot be completed within 14-days, provide a schedule and justification for why it is infeasible to complete the necessary work.

Things to look for – be proactive

- Pick up garbage when observed on-site and in any outfall or drainage areas
- Check trucks, loaders, forklifts and other heavy equipment for leaks prior to using them.
- Inspect delivered equipment for issues
- Don't overfill trash bins and keep covered when not in use
- Ensure items like fuel canisters are not exposed to precipitation
- If in doubt, call your DEP or (Marvin) or the MSGP program (Jacob and Kiri)

Unplanned Releases/Spills

- Regulatory Driver: New Mexico Water Quality Control Commission Regulations (20.6.2.1203 NMAC) require that any spill impacting a storm water drainage system, watercourse, groundwater, SWMU or AOC be reported to the NMED.
- Small spills that are completely remediated in a timely manner may not be reportable, but the release must be reported to the DEP and EPC spills program (spill pager 664-7722), remediated, and documented on an Unplanned Release Report. Untimely clean-up may change a non-reportable event to a reportable event.

Unplanned Releases/Spills



Unplanned Releases/Spills



Unplanned Releases/Spills

- Immediately notify EPC of all unplanned releases to ensure appropriate corrective actions are taken and notifications are made. Anything that looks like a spill is a spill (big or small) and has to be reported.
- EPC Spills Pager – (664-7722) and DEP
- Contact EOSC – (667-2400) if the unplanned release is an emergency.
- TRIAD must notify NMED within 24 hours of every “Reportable” spill and follow with written reports within seven and fifteen days.
- TRIAD must immediately notify the National Response Center of any release of a Hazardous Substance that equals or exceeds a Reportable Quantity.
- **KNOW WHERE YOUR SPILL KITS ARE**

Questions?



ATTACHMENT 12: MSGP (OR ACTIVE URL)

The link for the [2021 MSGP](#).

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

LA-UR-22-20556

Approved for public release; distribution is unlimited.

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

Author(s): Thompson, Brent Eugene
Hathcock, Charles Dean
Sanchez, Audrey Anna

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LA-UR-22-20556
January 2022
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Threatened and Endangered Species Habitat Management Plan for Los Alamos National Laboratory



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

Prepared by: Environmental Protection and Compliance Division
Resources Management Team
Los Alamos National Laboratory
An Affirmative Action/Equal Opportunity Employer

Editing and Layout by: Tamara Hawman
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Los Alamos National Laboratory

Cover photo: Mexican Spotted Owls at Los Alamos National Laboratory



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I. THREATENED AND ENDANGERED SPECIES HABITAT MANAGEMENT PLAN GENERAL OVERVIEW

1.0 Introduction

The Los Alamos National Laboratory (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 2022 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 that have 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 traillii 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 70 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 western distinct population segment of the 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—onsite or offsite—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), which 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 that cause 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-meter (m; 49-foot [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.

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 disturbance or 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 1999 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 may be allowed in buffer areas. Each species’ site plan details the allowable levels. Under the guidelines of this HMP, individual development projects are limited to 2 hectares (ha; 5 acre [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).

3.3 *Emergency Actions*

Managers may activate emergency actions if safety and/or property is immediately threatened by something occurring within an AEI (e.g., wildfire, water line breakage). Contact a LANL biologist (<https://int.lanl.gov/environment/bio/index.shtml>), the Environmental Stewardship Group (505-665-8855), or the DOE/National Nuclear Security Administration (NNSA) Los Alamos Field Office (505-667-7014) as soon as possible. If the emergency occurs outside of regular business hours, contact the Emergency Operations Support Center (505-667-2400); this office will then communicate with the appropriate LANL and DOE/NNSA 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 I-1 illustrates the process for utilizing site plans. If activities follow approved Site Plan guidelines, there is no requirement for additional ESA regulatory compliance; however, if proposed activities fall outside of the requirements of the Site Plan(s), then the project must fund a biological assessment for their activity.

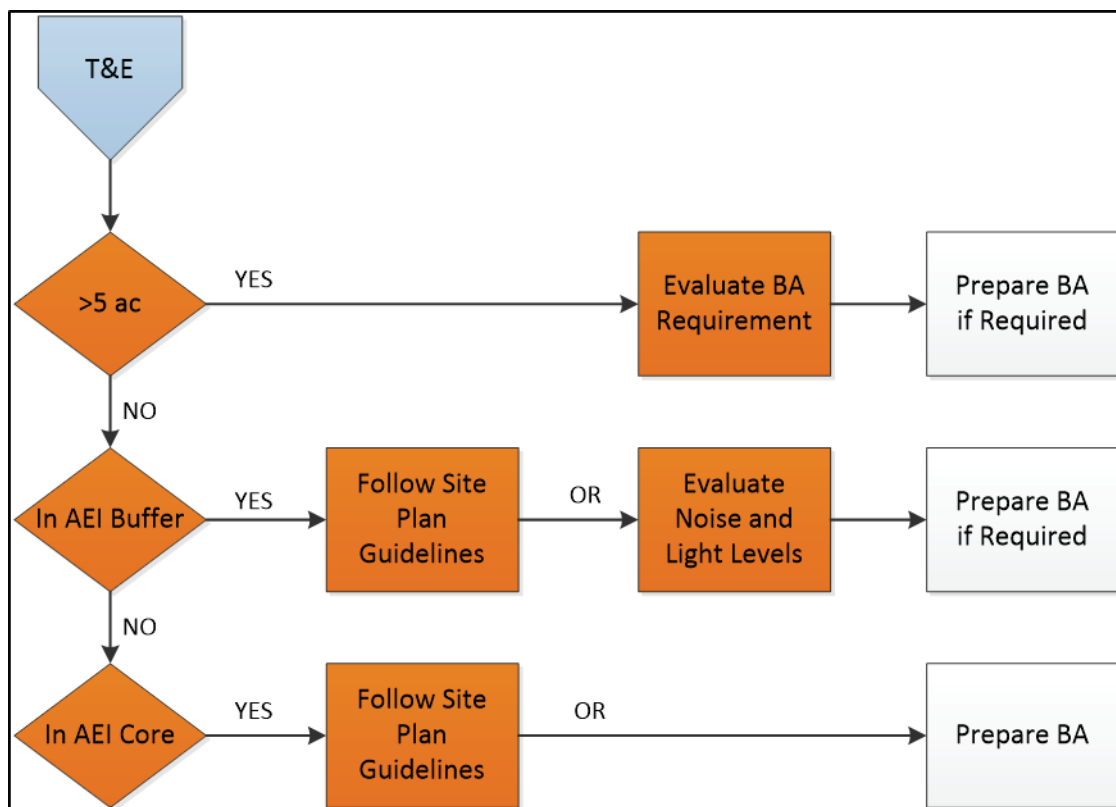


Figure I-1. Process flowchart for determining site plan requirements

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 in an undeveloped area that could have impacts on nearby habitat. 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 areas 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 *Environmental Management System*, System Description (SD) 400 (LANL 2021) and allows managers to identify the requirements within their project areas. Deployed environmental professionals and core LANL 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 for these actions. 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.

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 Activities that Do Not Meet Site Plan Guidelines

If a project reviewer determines that an activity or project cannot meet the guidelines in applicable site plans, LANL biologists evaluate that activity individually for compliance with the ESA. Results of the evaluation of potential impacts allow LANL biologists to make recommendations to the DOE/NNSA Field Office Biological Resources Program Manager regarding the need for USFWS consultation. An evaluation may result in a DOE/NNSA Field Office

- determination that there is no effect and the activity may proceed,
- suggestion for modifications of the action to avoid adverse effects so that it may proceed, or
- 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 several months, with an additional 2 to 12 months for DOE/NNSA 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 that resulted from long-term drought and fire effects (USFWS consultation number 02ENNM00-2017-I-0255).

In 2022, the HMP was revised for formatting and updated language and to revise Section 5.0 in the Mexican Spotted Owl site plan. This effort was a required mitigation in a recent consultation (USFWS consultation number 02ENNM00-2020-I-1412).

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 shown 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 53182).

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 might 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 who nest in canyons consists primarily of woodrats (*Neotoma spp.*) and deer mice (*Peromyscus spp.*), with fewer numbers of rabbits, birds, reptiles, and arthropods (Willey 2013). The relative abundance of prey types in Mexican Spotted Owl pellets collected at LANL is listed in Table A-1 in the appendix. Ganey and Balda (1994) found that 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 experienced recent agricultural or forest product extraction land uses; therefore, Mexican Spotted Owls generally are 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 that contain paved or dirt roads in the canyon bottoms have not been occupied at LANL (Hathcock et al. 2010).

2.2.2 Ecological Risk

No specific information exists 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).

Between 1997 and 2009, LANL subject matter experts completed three ecological risk assessments that included the Mexican Spotted Owl. 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 to Mexican Spotted Owls is expected from chemicals of potential concern (Gallegos et al. 1997; Gonzales et al. 2004; Gonzales et al. 2009).

2.2.3 Disturbance

Pedestrians and Vehicles

Based on work with other raptors, LANL 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 with 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 could be detrimental.

Many canyon bottoms and mesa tops at LANL have dirt roads traversing them. Most of these roads are gated; however, these roads are accessible to LANL employees, and some of them are accessible to the public on foot or by bike. LANL biologists found that AEIs are occupied less often if there is recreational access into a canyon (Hathcock et al. 2010).

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.

Explosives

No specific information is currently 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 decibels (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-gram (g; 5.89-ounce [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-kilogram (kg; 44-pound [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 decibels [dB(A)] to a range between 64 and 71 dB(A) during shots at a distance of 1.8 kilometers (km; 1.1 miles [mi]). At a distance of 4.3 km (2.67 mi), noise levels rose from a background range of 35 to 64 dB(A) to a range of 60 to 63 dB(A) (Vigil 1995). At a distance of 6.7 km (4.16 mi), noise levels rose from a background range of 38 to 51 dB(A) to a range of 60 to 71 dB(A) (Burns 1995). LANL 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). LANL 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)—likely due to the strict access control in explosives areas that limits human activity and development in the canyon bottoms.

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 LANL to comply with minimizing pollutants in storm water discharges from associated historical industrial activities. To do so, site-specific stormwater and sediment control features such as berms, rock check dams, and other best management practices (BMPs) are installed at various sites around LANL. These BMPs—and the associated monitoring required—often occur in canyon bottoms in protected habitat. LANL biologists conducted a study of noise levels in canyons and found that the primary sources of noise that exceed 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, LANL 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 a.m.) 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).

LANL 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 to 81 dB(C)]. The average background noise in the canyon bottom was 62.3 dB(C) [with a range of 54 to 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 to 64 dB(C)]. Measurements were taken mid-day.

LANL 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).

LANL 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.

LANL 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.

LANL biologists took sound-level measurements around the LANL TA-3, Building 1076 with the heating, ventilation, and air conditioning (HVAC) system on and with it off (Hansen 2009). The area to the north of the TA-3, Building 1076 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.

In 2020, LANL biologists conducted noise-level assessments around TA-35 to support a biological assessment (LANL 2020). Noise levels were measured along core habitat for the Mexican Spotted Owl in the Sandia-Mortandad AEI in TA-35. The average across all locations and sampling time intervals in this study was 47.47 dB(A), which was 5.27 dB(A) lower than the Vrooman et al. (2000) average.

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).

Artificially Produced Light

No information is 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 offsite 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 foot-candles.

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 might be found within their home range anytime throughout the year, the primary threat from disturbance to the owls is during the breeding season when owl pairs are tied to their nest sites; therefore, management of disturbance in Mexican Spotted Owl AEIs is concentrated on the breeding season.

3.1 Method for Identifying a Mexican Spotted Owl AEI

The original location of each Mexican Spotted Owl AEI was identified using a habitat model developed by Johnson (1998) that classified nesting and roosting habitat for Mexican Spotted Owls using topographic characteristics and vegetative diversity. LANL biologists compared the results from the Johnson (1998) model with a different model that identified 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 greater than five contiguous 30 × 30 m (98 × 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.

Following the Cerro Grande wildfire, an updated Mexican Spotted Owl habitat model was developed and refined for application on LANL property (Hathcock and Haarmann 2008). This model incorporated finer-scale vegetation characteristics into the Mexican Spotted Owl habitat quality assessment and 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 Section I.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 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 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 can 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 that cause habitat alterations are restricted in all AEIs, disturbance activities are restricted only in occupied

AEIs. The Activity Table (Table II-1, Section II.4.5.2) provides dates and levels of allowable disturbance activities within occupied Mexican Spotted Owl AEIs under the guidelines of this site plan. Contact a LANL biologist to find out the current occupancy status of an AEI (<https://int.lanl.gov/environment/bio/index.shtml>).

4.3 *Introduction to AEI Management Guidelines*

Sections 4.4 and II.4.5 provide the guidelines for habitat alterations and allowable activities in AEI core and buffer areas. Section II.4.4 describes what and where habitat alterations are allowed under the guidelines of this site plan. Section II.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 provides only 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 II.4.6 describes management practices that should be applied when working or considering work in an AEI. LANL biologists are available to answer questions and provide advice (<https://int.lanl.gov/environment/bio/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 1 year. For physical disturbances, in general, any activity that can be accomplished by one person with a hand tool generally is 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 suitable habitat for nesting and foraging. Trees along the canyon rim are used for foraging and territorial calling, and they shelter the canyon interior from light and noise disturbances.

A long-term change in light or noise levels within the undeveloped core of an AEI is considered to be a habitat alteration if it increases average noise levels by >6 dB(A) during any portion of the 24-hour day or if it increases average light levels by >0.05 fc at night. Changes in noise and light levels are measured at the core area boundary if the source is outside the core area or at 10 m (33 ft) from the source if the source is inside the undeveloped core area. Impacts of changes in developed areas on undeveloped cores are measured at the developed area boundary if it is within the core or at the core area boundary if the developed area is outside of the core.

4.4.2 *Fuels Management Practices to Reduce Wildfire Risk*

The recovery plan for the Mexican Spotted Owl lists stand-replacing wildfires as a primary threat to their habitat and encourages land managers to reduce fuel levels and abate fire risks in ways compatible with

owl presence on the landscape (USFWS 1995). Within undeveloped core areas, on slopes >40 percent, in the bottoms of steep canyons, and within 30 m (100 ft) of a canyon rim, thinning of trees <22 centimeters (cm; 9 inches [in.]) diameter at breast height, treatment of fuels, and prescribed and natural prescribed fires are allowed. Exceptions that allow 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 that do not meet the characteristics listed above and in buffer areas may include trees of any size to achieve 8 m (25 ft) spacing between tree crowns; however, clear cutting is not allowed in undeveloped core areas.

For health and safety reasons, any trees within 30 m (100 ft) of buildings but outside a developed area may be thinned to achieve 8 m (25 ft) spacing between crowns. Habitat alterations, including thinning, are not restricted in developed areas; however, LANL 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 in excess of 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).

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 (LANL 2020). New utility lines and utility lines that require 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 II-1, Section II.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 II.2.2.3). Projects in the buffer area larger than 2 ha (5 ac) in size will require individual ESA compliance review. A cumulative maximum area may be developed in each AEI's buffer. Once that cumulative area is reached, all habitat alterations in a buffer will require individual ESA reviews for compliance.

4.5 *Definition of and Restrictions on Disturbance Activities*

4.5.1 Definitions of Disturbance Activities

LANL 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). LANL 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. LANL 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 II-1, Section II.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 1 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 1 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 1 day or less during a breeding season.
- Medium impact is the exceedance of either the number of aircraft or the duration criteria.
- High impact is the exceedance of both the number of aircraft and the duration criteria.

Any use of helicopters, jet airplanes, and propeller airplanes with two or more engines is classified as medium impact or above, depending on duration.

Other Light Production—includes any activity not previously listed that causes additional light to occur in an AEI core area. For example, plans for construction of a new building at the edge of a developed area may call for lighting at night to facilitate nighttime work that impacts an undeveloped core area.

- Low impact is the increase of light intensity by ≤ 0.05 fc and a duration of 1 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 1 day or less per project per breeding season.
- Medium impact is the exceedance of either the level or the duration criteria.
- High impact is the exceedance of both the level and the duration criteria.

Measurements for increases in noise are taken at the AEI core boundary closest to the noise source if the source is outside the core and at 10 m (33 ft) from the source if the source is inside the core. Noise measurements for developed areas are taken at the edge of the developed area if the developed area is within an AEI core or at the closest core boundary if the developed area is outside of an AEI core.

Explosives Detonation—includes the use of high explosives for any purpose. LANL 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 per month from March 1 and August 31. No restrictions exist on daytime explosives testing between 400 and 800 m (1,312 to 2,624 ft), and no restrictions exist between September 1 and February 28 or in unoccupied habitat. Explosives detonation adjacent to AEIs that have not previously been recorded by LANL 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 II-1) are the dates between which the activity in the row is restricted under the guidelines of this site plan. All AEIs are considered occupied from March 1 to August 31 or until surveys show an AEI to be unoccupied. If owls are detected, AEIs are considered occupied

until August 31 within 400 m (1,312 ft) of the nest site. Consult with LANL biologists to find out occupancy status of AEIs and what locations are within 400 m (1,312 ft) of nest sites (<https://int.lanl.gov/environment/bio/index.shtml>).

Table II-1. Restrictions on Activities in Undeveloped Occupied Mexican Spotted Owl AEIs

Levels of Impact	Core	Buffer
People		
Low	No Restrictions*	No Restrictions
Medium	March 1 to August 31	No Restrictions
High	March 1 to August 31	No Restrictions
Vehicles		
Low	No Restrictions	No Restrictions
Medium	March 1 to August 31	No Restrictions
High	March 1 to August 31	No Restrictions
Aircraft		
Low	March 1 to August 31	No Restrictions
Medium	March 1 to August 31	March 1 to May 15
High	March 1 to August 31	March 1 to August 31
Other Light Production		
Low	March 1 to August 31	No Restrictions**
Medium	March 1 to August 31	No Restrictions**
High	March 1 to August 31	No Restrictions**
Other Noise Production		
Low	March 1 to August 31	No Restrictions**
Medium	March 1 to August 31	No Restrictions**
High	March 1 to August 31	No Restrictions**
Explosives Detonation (see text in Section 4.5.1)		

* Entry is restricted in core areas that are occupied within 400 m (1,312 ft) of the nest site from March 1 to August 31. If the current nest has not been located, entry is restricted within 400 m (1,312 ft) of the previous year's nest site.

** Noise or light production in the buffer is restricted if the activity would violate core area restrictions on noise or light.

4.6 Protective Measures

This section provides a list of management practices to apply in Mexican Spotted Owl AEIs.

- Timing of projects must take into account that projects in core areas or projects that violate restrictions for occupied buffer areas must stop on February 28 of 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 that lead into AEIs, posting them as restricted access areas and providing 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 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. This section was updated in the 2022 revision. The original framework for the HMP included allowable levels of future development in buffer habitat for each AEI. The AEI boundaries have changed over time, so the percent of allowable development was used to compare 1999 values to 2022 levels.

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, which is 9.7 percent. 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 (1,295 ac) of buffer habitat. Of that, 18.6 ha (46 ac) of the current core is developed, and 80.5 ha (199 ac) of the current buffer is developed. As of this 2022 HMP revision, 15.47 percent of the buffer is developed. Any future development in buffer would require a consultation.

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, which is 21.8 percent. 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, 29.5 ha

(73 ac) of the current core is developed, and 101.5 ha (251 ac) of the current buffer is developed. As of this 2022 HMP revision, 22.6 percent of the buffer is developed. Any future development in buffer would require a consultation.

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, which is 9.97 percent. 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, 125.4 ha (310 ac) of the current core is developed, and 347.2 ha (858 ac) of the current buffer is developed. These increases are largely due to large tracts of land that were transferred to Los Alamos County through the Land Conveyance and Transfer project (USFWS consultation number 2-22-01-F-634). As of this 2022 HMP revision, 64.8 percent of the buffer is developed. Any future development in buffer would require a consultation.

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, it was recommended that only an additional 38.1 ha (94.1 ac) of the buffer be developed, which is 20.2 percent, 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, 48.5 ha (120 ac) of the current core is developed, and 101.2 ha (250 ac) of the current buffer is developed. As of this 2022 HMP revision, 27.2 percent of the buffer is developed. Any future development in buffer would require a consultation.

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, it was recommended that only 64.3 ha (158.8 ac) additional area of buffer be developed, which is 24.9 percent, 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, 7.2 ha (18 ac) of the current core is developed, and 32.3 ha (80 ac) of the current buffer is developed. As of this 2022 HMP revision, 10.9 percent of the buffer is developed. Additionally, this AEI has been occupied since 2007.

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 1-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 might 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 nests only 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 that result 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. Extensive degradation of the riparian zone has occurred along the Rio Grande, caused by feral-cattle grazing and flood-control operations at Cochiti Lake. Other riparian/wetland areas on LANL property are 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.

Ecological Risk Assessment

LANL 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 result indicates a small potential for impacts from chemicals. The primary chemicals that drove 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

Pedestrians and Vehicles

No specific information is 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).

Aircraft

No specific information is 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.

Explosives

No specific information is 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.

Other Sources of Noise

LANL 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 Section II.2.2.3.

Artificially Produced Light

No information is 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 offsite 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 I.3.1 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 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 an AEI is occupied during a species' period of sensitivity. For Southwestern Willow Flycatchers, LANL biologists are primarily concerned with protecting the birds from disturbance during the breeding season. Because individuals can 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 that cause habitat alterations are always restricted, disturbance activities are restricted only in occupied AEIs. The Activity Table (Table II-1, Section II.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 II-1 indicate the period during which the activity is restricted. Contact a LANL biologist to find out the current occupancy status of an AEI (<https://int.lanl.gov/environment/bio/index.shtml>).

4.3 *Introduction to AEI Management Guidelines*

Sections II.4.4 and II.4.5 provide the guidelines for habitat alterations and allowable activities in AEI core and buffer areas. The flowchart (see Figure I-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 II.4.4) describes what and where habitat alterations are allowed under the guidelines of this site plan. Section II.4.5 and Table II-1 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 provides only guidelines for the Southwestern Willow Flycatcher AEI. If an activity is desired in an area that has overlapping AEIs, all applicable site plans must be consulted. Section II.4.6 describes management practices that should be applied when working or considering work in an AEI. LANL biologists are available to help interpret site plans and answer questions (<https://int.lanl.gov/environment/bio/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 that the alteration lasts for more than 1 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 (LANL 2020). New utility lines and utility lines that require 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 II-1, Section II.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.

4.5 *Definition of and Restrictions on Disturbance Activities*

4.5.1 Definition of Disturbance Activities

LANL 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 no explosives-testing sites are located 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 1 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 1 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

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- Low impact is the presence of one single-engine airplane and duration of 1 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 1 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 1 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 III-1) 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 LANL biologist (<https://int.lanl.gov/environment/bio/index.shtml>).

Table III-1. Restrictions on Activities in Undeveloped Occupied

Levels of Impact	Core	Buffer
People		
Low	No Restrictions	No Restrictions
Medium	May 15 to August 15	No Restrictions
High	May 15 to September 15	No Restrictions
Vehicles		
Low	May 15 to September 15	No Restrictions
Medium	May 15 to September 15	No Restrictions
High	May 15 to September 15	No Restrictions
Aircraft		
Low	No Restrictions	No Restrictions
Medium	May 15 to August 15	May 15 to August 15
High	May 15 to September 15	May 15 to August 15
Other Light/Noise Production		
Low	May 15 to September 15	No Restrictions*
Medium	May 15 to September 15	No Restrictions*
High	May 15 to September 15	No Restrictions*

*Noise or light production in the buffer is restricted if the activity would violate core area restriction on noise or light.

4.6 Protective Measures

This section provides a list of management practices to apply in the AEI.

- No wetland vegetation will be removed outside of developed areas.
- Employ appropriate erosion and runoff controls to reduce soil loss.
- Avoid unnecessary disturbance to vegetation (e.g., excessive parking areas or equipment storage areas, off-road travel, materials storage areas, crossing of streams or washes).
- Avoid removal of vegetation along drainage systems and stream channels.
- Avoid all vegetation removals not absolutely necessary.
- Appropriate erosion controls must be put in place and periodically checked throughout the life of any projects.
- Revegetate all exposed soils as soon as feasible after disturbance to minimize erosion.

5.0 Southwestern Willow Flycatcher AEI Description

5.1 Pajarito Canyon Southwestern Willow Flycatcher AEI

5.1.1 Allowable Habitat Alteration in the Buffer Area

Because 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. Restrictions on habitat alteration are relaxed in two areas:

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- The mesa top of Mesita del Buey. This mesa top can be developed if restrictions on impacts to the core area are met.
 - Pajarito Road within the AEI. Mowing of upland vegetation is allowed up to 5 m (15 ft) from Pajarito Road or to the fence if the fence is within 9 m (30 ft). Vegetation must cover the roadsides to prevent sediment runoff, so mowed plants should be at least 5 cm (2 in) high. LANL biologists encourage the growth of willow throughout the AEI—even the area along Pajarito Road—to enhance habitat. If it is absolutely necessary to remove new willow growth (i.e., to improve visibility for human safety) within this area, LANL 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

In 2006, the Jemez Mountains Salamander was listed in New Mexico as endangered under the Wildlife Conservation Act of New Mexico (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 occurred on September 10, 2013 (78 FR 55599).

1.2 General Biology

The Jemez Mountains Salamander is endemic to the Jemez Mountains of north-central New Mexico and is found in Los Alamos, Rio Arriba, and Sandoval counties (Stebbins and Riemer 1950). It is one of two endemic plethodontid salamanders that occurs in New Mexico, 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 that consists 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. A secondary paved road (West Road) in the bottom of the canyon 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 bicycle. 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 could 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 could 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; B. Thompson, personal communication, January 2022).

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 could occur at LANL. The core habitat consists of sections of north-facing slope that contain the required microhabitat to support the 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 selected only 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. Because the Jemez Mountains Salamander needs cool moist conditions, an illumination index model would further highlight areas where this habitat type could occur or further reinforce the areas selected by the GIS modeling. The illumination index describes the amount and extent of solar radiation that reaches the Earth's surface at a given point, taking into account

the topography that could 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 p.m., altitude of 74.4 and Azimuth of 178.4, when the sun would be at its maximum height. These procedures were based on work done by Reilly et al. (2009).

Once this modeling was complete, LANL 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). Changes in habitat from fire and extreme drought effects have occurred since this landcover map was published. Because LANL is on the extreme edge of Jemez Mountains Salamander lower elevational range, a key component in this part of its range is soil moisture content. During field validation, evidence of a moist mixed conifer habitat versus a dry mixed conifer habitat was noted. One of the key indicators used to delimit areas of moist versus dry mixed conifer during the field validation was the presence of white fir (Evans et al. 2011) combined with a high canopy cover.

Field validation of the model occurred in May 2013, or decisions were based on earlier field visits to the sites from other projects. Each field validation consisted of LANL 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 LANL 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 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 because 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. Two noncontiguous areas of habitat are located 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 an AEI is occupied by the Jemez Mountains Salamander. The Los Alamos Canyon AEI is known to be occupied based on past surveys. Surveys for the Jemez Mountains Salamander are known to have a very low detection rate for occupied areas, so at LANL, all AEIs are assumed to be occupied at all times. If needed, site-specific surveys will be conducted by federally permitted LANL 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 could contain Jemez Mountains Salamanders when they move to the surface between July and October. Any project that occurs within developed core habitat will be evaluated by LANL 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 LANL biologists to ensure that there are no impacts to the core habitat.

4.5 Emergency Actions

Managers may activate emergency actions if safety and/or property is immediately threatened by something occurring within an AEI (e.g., wildfire, water line breakage). Contact a LANL biologist (<https://int.lanl.gov/environment/bio/index.shtml>), the Environmental Stewardship Group (505-665-8855), or the DOE/NNSA Los Alamos Field Office (505-667-7014) as soon as possible. If the emergency occurs outside of regular business hours, contact the Emergency Operations Support Center (505-667-2400); this office will then communicate with the appropriate LANL and DOE/NNSA Field Office 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 provides only guidelines for the Jemez Mountains

Salamander AEIs. If an activity is desired in an area that has overlapping AEIs, all applicable site plans must be consulted. AEI maps show the location of all AEIs in an area. LANL biologists are available to help interpret site plans and answer questions (<https://int.lanl.gov/environment/bio/index.shtml>).

4.7 Definition of and Restrictions on Habitat Alterations

4.7.1 Definition of Habitat Alterations

Habitat alteration includes any action that alters the soil structure, vegetative components necessary to the species, water quality, or hydrology in undeveloped areas of an AEI. An actual activity may take place outside of the AEI and will be considered habitat alteration if consequences of the activity have effects inside the AEI core. Habitat alterations would also include soil pits for soil samples deeper than 15 cm (6 in.) using either hand or mechanized augers. Any activity that might disturb the soil will need to be reviewed by LANL 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 LANL 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 onsite to aid in soil moisture retention. Thinning activities should not occur during the rainy season between July to October when the Jemez Mountains Salamander is found on the surface.

In buffer areas, thinning of trees may occur to the current LANL-approved prescription level (LAAO 2000). LANL biologists are available to provide guidance and mark trees for thinning (<https://int.lanl.gov/environment/bio/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 (LANL 2019). This level is approved in all areas of an AEI. New utility lines and utility lines that require clearance of a right-of-way greater than 16 m (52 ft) total in core habitat must be individually reviewed for ESA compliance.

4.7.4 Restrictions on Habitat Alterations

Habitat alterations other than the fuels management practices and utility corridor maintenance described above are not allowed in undeveloped core areas under the guidelines of this site plan. If a project or activity is planned that would alter habitat in an undeveloped core area, it must be individually evaluated

for ESA compliance. Habitat alterations in buffer areas must be reviewed by LANL biologists to ensure that there are no impacts to core habitat.



V. ACRONYMS AND ABBREVIATIONS

Acronym	Definition
ac	acre
AEI	area of environmental interest
Bd	Batrachochytrium dendrobatidis (Chytrid Fungus)
BMP	Best management practices
cm	centimeter
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
FR	Federal Register
ft	feet
g	gram
GIS	geographic information system
ha	hectare
HMP	Threatened and Endangered Species Habitat Management Plan
HVAC	heating, ventilation, and air conditioning
in.	inch
kg	kilogram
LANL	Los Alamos National Laboratory
m	meter
mi	mile
NEPA	National Environmental Policy Act
NNSA	National Nuclear Security Administration
oz	ounce
PCBs	polychlorinated biphenyls
TNT	trinitrotoluene(2,4,6-)
USFWS	U.S. Fish and Wildlife Service

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Appendix A: Supplemental Information

Table A-1. 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 fc) for the Mexican Spotted Owl Site Plan

		Distance from Source			
	Source (street light)	5 m	10 m	15 m	20 m
fc	3.70	2.28	1.20	0.62	0.32

Appendix A: Most recent map of all AEIs at LANL

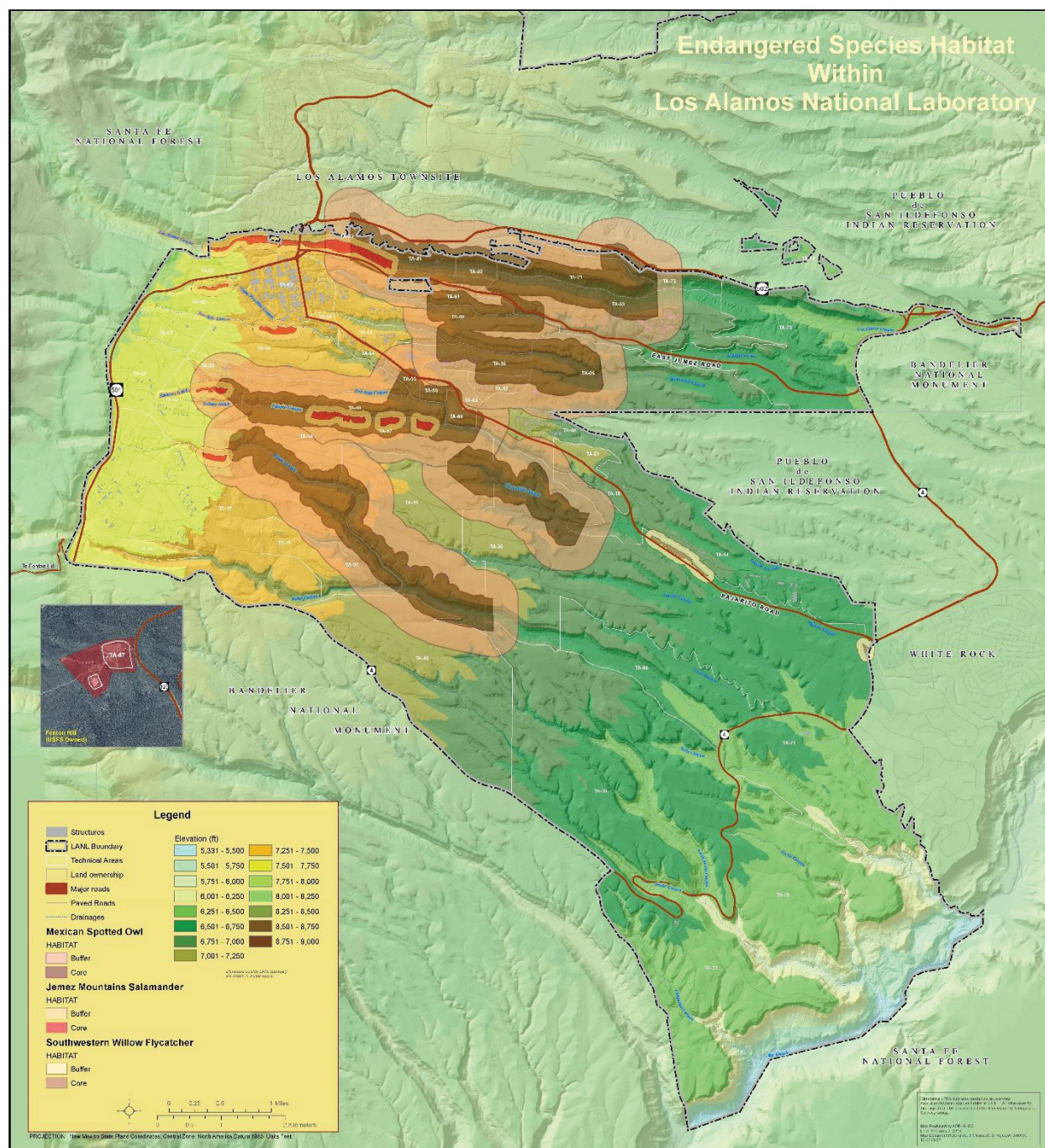


Figure A-1. Most recent map of all AEIs at LANL

ATTACHMENT 14: MSGP IPAC TRUST RESOURCES REPORT

NOTE: The Permit requires this information. However, LANL EPC-ES has completed consultation with U.S. Fish and Wildlife Service. Letters of Consultation are contained in the NOI (see Attachment 1). Refer to Attachment 13 for the species habitat management plan.

IPaC Information for Planning and Consultation U.S. Fish & Wildlife Service

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Los Alamos, Sandoval, and Santa Fe counties, New Mexico



Local office

New Mexico Ecological Services Field Office

☎ (505) 346-2525

📠 (505) 346-2542

2105 Osuna Road Ne
Albuquerque, NM 87113-1001

<http://www.fws.gov/southwest/es/NewMexico/>

http://www.fws.gov/southwest/es/ES_Lists_Main2.html

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
 2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an

office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
New Mexico Meadow Jumping Mouse <i>Zapus hudsonius luteus</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/7965	Endangered

Birds

NAME	STATUS
Mexican Spotted Owl <i>Strix occidentalis lucida</i> Wherever found There is final critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/8196	Threatened
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/6749	Endangered
Yellow-billed Cuckoo <i>Coccyzus americanus</i> There is proposed critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/3911	Threatened

Amphibians

NAME	STATUS
------	--------

Jemez Mountains Salamander *Plethodon neomexicanus* Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/4095>

Fishes

NAME	STATUS
Rio Grande Silvery Minnow <i>Hybognathus amarus</i> There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/1391	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
Mexican Spotted Owl <i>Strix occidentalis lucida</i> https://ecos.fws.gov/ecp/species/8196#crithab	Final

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed->

[species/](#)
[birds-of-conservation-concern.php](#)

- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A
BREEDING SEASON IS
INDICATED FOR A BIRD ON
YOUR LIST, THE BIRD MAY
BREED IN YOUR PROJECT
AREA SOMETIME WITHIN THE
TIMEFRAME SPECIFIED,
WHICH IS A VERY LIBERAL
ESTIMATE OF THE DATES
INSIDE WHICH THE BIRD
BREEDS ACROSS ITS ENTIRE
RANGE. "BREEDS ELSEWHERE"
INDICATES THAT THE BIRD
DOES NOT LIKELY BREED IN
YOUR PROJECT AREA.)

Bald Eagle *Haliaeetus leucocephalus*

Breeds Dec 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1626>

Black-chinned Sparrow *Spizella atrogularis*

Breeds Apr 15 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9447>

Brewer's Sparrow *Spizella breweri*

Breeds May 15 to Aug 10

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/9291>

Golden Eagle *Aquila chrysaetos*

Breeds Jan 1 to Aug 31

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/1680>

Grace's Warbler *Dendroica graciae*

Breeds May 20 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Gray Vireo *Vireo vicinior*

Breeds May 10 to Aug 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/8680>

Lesser Yellowlegs *Tringa flavipes*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9679>

Lewis's Woodpecker *Melanerpes lewis*

Breeds Apr 20 to Sep 30

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9408>

Long-billed Curlew *Numenius americanus*

Breeds Apr 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/5511>

Long-eared Owl *asio otus*

Breeds Mar 1 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3631>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Pinyon Jay *Gymnorhinus cyanocephalus*

Breeds Feb 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9420>

Rufous Hummingbird *elasphorus rufus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/8002>

Virginia's Warbler *Vermivora virginiae*

Breeds May 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9441>

Willet *Tringa semipalmata*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Willow Flycatcher *Empidonax traillii*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/3482>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most

likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

[PEM1C](#)

FRESHWATER FORESTED/SHRUB WETLAND

[PSS1A](#)

RIVERINE

[R4SBA](#)

[R4SBC](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

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.

NOT FOR CONSULTATION

ATTACHMENT 15: EPC-CP-PIP-2101, *NPDES MULTI-SECTOR GENERAL PERMIT*

EPC-CP-PIP-2101Revision: **2**

Effective Date: 04/26/2023

Next Review Date: 04/26/2026

Environment, Safety, Health, and Quality 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:
Holly L. Wheeler	EPC-CP	Signature on File	04-20-2023

Derivative Classifier: ☒ **Unclassified** or ☐ _____

Name:	Organization:	Signature:	Date:
Steven E. Wolfel	EPC-CP	Signature on File	04-20-2023

Approval Signatures:

EPC-CP Reviewer:	Organization:	Signature:	Date:
Alethea Banar	EPC-CP	Signature on File	04-20-2023
Responsible Line Manager:	Organization:	Signature:	Date:
Terrill W. Lemke, Team Leader	EPC-CP	Signature on File	04-21-2023
Responsible Line Manager:	Organization:	Signature:	Date:
Steven L. Story, Group Leader	EPC-CP	Signature on File	04-26-2023

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	Revision: 2	Effective Date: 04/26/2023

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.
EPC-CP-PIP-2101 R2	04/26/2023	This revision includes reintegration of training and qualifications into PIP. Expanded Section 4.2 to add subsections 4.2.1 MSGP Program Training with Table 4.2.1, 4.2.2 MSGP Program Qualifications, and 4.2.3 Certifications. Removed Appendix A. This document, EPC-CP-PIP-2101 R2, supersedes/replaces EPC-CP-PIP-2101 R1, EPC-CP-QS-2005, EPC-CP-QS-006, and EPC-CP-QS-2007.

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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*

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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 Stormwater 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:

- 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.

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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, 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 Stormwater 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 EPC-CP-QAP-001, *Environmental Compliance Programs Quality Assurance Plan*.
- Conduct periodic reviews of records and documentation for accuracy, applicability, and compliance.

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- 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 Stormwater 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 Stormwater 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.

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- 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 Stormwater 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 Stormwater 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.

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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.
- Oversee shipping/transport of samples to the correct off-site analytical laboratory for analysis.
- Oversee administration and maintenance of sampling plans and sample documentation.
- Load analytical data into the EIM database and run auto-validation checks.
- Oversee management of 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.

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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 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.

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- 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 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 is 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

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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.

4.2 Criterion 2 – Management/Personnel Training and Qualification

The Stormwater 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*. All personnel performing program related work are required to obtain appropriate training before performing work governed by a procedure. The Stormwater Permitting/Compliance Team Leader assigns minimum training requirements using a training plan which will be assigned and tracked using the training management system, UTrain. The Triad Human Resources Division maintains documentation of education qualifications.

4.2.1 MSGP Program Training

Table 4.2.1 provides a summary of training requirements for MSGP Program personnel.

Table 4.2.1 Management/Personnel Training		
Key Personnel/Role	Task Description	Curriculum or Course Number
Stormwater Program Lead and MSGP Inspectors	Duty Area: NPDES Permit Knowledge	
	EPC-CP-PIP-2101, NPDES Multi-Sector General Permit	Course 28267
	EPC-CP-QAP-001, EPC-CP Quality Assurance Plan	Course 44842
	Duty Area: Inspection Procedures	
	EPC-CP-QP-0903, Environmental Reporting Requirements for Releases or Events	Course 42415
	EPC-CP-TP-2102, Installing, Setting Up, and Operating ISCO Samplers	Course 55962
	EPC-CP-TP-2103, Inspecting ISCO Stormwater Runoff Samplers and Retrieving Samples	Course 56594
	EPC-CP-QP-2104, Installing, Inspecting, and Maintaining MSGP Single Stage Samplers	Non_Train 42638
	EPC-CP-QP-2105, MSGP Stormwater Visual Assessments	Course 50493
	EPC-CP-QP-2106, Processing MSGP Stormwater Samples	Course 56595
	EPC-CP-QP-2108, MSGP Routine Facility Inspections	Course 42609
	EPC-CP-QP-2109, MSGP Corrective Actions	Course 54892
	EPC-CP-QP-3020, Sample Control and Field Documentation	Course 47729

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	EPC-CP-QP-3027, Sample Containers, Preservation, and Field Quality Control Samples	Course 48007
	Chemical Hazard Communication	Course 25997
	Excavation/Fill/Soil Disturbance Self-Study	Course 31419
	LANL Excavation/Fill/Soil Disturbance (EXID) Permit Process Using the EXID Request System	Course 47420
	IRT GIS Mapping Training	Course 46181
	Duty Area: General Field Safety	
	EPC-DO-QP-100, General Field Safety	Course 45777
	P300 Integrated Work Management	Course 48233
	P101-7 Vehicle and Pedestrian Safety	Course 57060
	Duty Area: Electrical Safety Field	
	Electrical Safety Program at LANL	Course 33215
	R&D Electrical Safety - Energized	Course 38710
	Battery Safety	Course 16745
	First Aid: Standard	Course 3574
	CPR/AED: LANL Workplace	Course 43562
Stormwater Pollution Prevention Plan Preparer	Duty Area: NPDES Permit Knowledge	
	EPC-CP-PIP-2101, NPDES Multi-Sector General Permit	Course 28267
	EPC-CP-QAP-001, EPC-CP Quality Assurance Plan	Course 44842
	Duty Area: Knowledge of applicable EPC-CP Plans and Procedures	
	EPC-CP-QP-2110, MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance	RR 48269
Storm Water Tracking System/Discharge Monitoring Report Manager	Duty Area: NPDES Permit Knowledge	
	EPC-CP-PIP-2101, NPDES Multi-Sector General Permit	Course 28267
	EPC-CP-QAP-001, EPC-CP Quality Assurance Plan	Course 44842
	Duty Area: Knowledge of applicable EPC-CP Plans and Procedures	
	EPC-CP-QP-2107, Preparing Discharge Monitoring Reports for the NPDES Multi-Sector General Permit	Course 56593

4.2.2 MSGP Program Qualifications

General Qualifications

- Experience in the principles and practices of industrial stormwater controls and pollution prevention.
- Two years of experience completing MSGP inspections **OR** one year inspection experience with a Certified Professional in Erosion and Sediment Control (CPESC) certification.
- Certified Inspector of Sediment and Erosion Control (CISEC) certification.

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MSGP Inspector Qualifications

- Demonstrated ability, as determined by the Program Lead and/or Stormwater Permitting and Compliance Team Leader, to successfully and effectively evaluate, and identify the following at permitted sites:
 - Appropriate and correct site stabilization measures,
 - Appropriate SCM selection to manage erosion and sedimentation,
 - Effectiveness of stormwater control measures selected and installed to meet the requirements of the permit,
 - Inadequate or ineffective SCMs,
 - Required modification or maintenance of existing SCMs,
 - Locations requiring new or additional SCMs,
 - All industrial, construction, or pollutant generating activity areas identified in the Stormwater Pollution Prevention Plan; and required to be evaluated by the MSGP,
 - Conditions and activities that may impact stormwater quality at a permitted site,
 - Potential pollutant sources, and
 - Stormwater Pollution Prevention Plan and supporting documentation.
- Demonstrated ability, as determined by the Program Lead and/or Stormwater Permitting and Compliance Team Leader, to properly and effectively complete inspection reports, including the following:
 - Conduct inspections in a professional manner,
 - Provide recommendations for new controls, or replacement or modification of existing controls,
 - Prepare reports, describe site conditions and issues, and document conditions requiring corrective action clearly and accurately,
 - Use proper spelling and grammar and write legibly,
 - Complete inspection form(s) accurately, and
 - Accurately enter findings into the appropriate programmatic database.

MSGP SWPPP Preparer Qualifications

- Demonstrated ability, as determined by the Program Lead and/or Stormwater Permitting and Compliance Team Leader to:
 - Prepare SWPPPs per LANL format and in compliance with MSGP requirements.
 - Assess conditions at an industrial facility that could impact stormwater quality.

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- Identify and specify appropriate SCMs and stabilization measures.
- Assess the effectiveness of stormwater controls selected and installed to meet the requirements of the permit.
- Perform necessary calculations to meet regulatory requirements.
- Prepare a site map.
- Identify potential pollutant sources associated with a site.

MSGP Stormwater Design Reviewer Qualifications

Must meet one of the following:

- Education in civil or environmental engineering.
- Experience with design reviews with a demonstrated background in stormwater management, sediment and erosion control, regulatory compliance, and experience with the LANL engineering standards and related engineering calculations.
- CPESC professional certification and experience reviewing design packages.

4.2.3 Certifications

MSGP personnel will, at a minimum, obtain a CISEC certification. CISEC and CPESC certifications are obtained from an entity outside of LANL. Each certification involves the successful completion of a classroom training and exam. CISEC and CPESC certifications will be recertified using the process and frequency determined by the entity the certification was obtained from (e.g., annually with completed professional development hours).

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.

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*, EPC-CP-QAP-001, *EPC-CP 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.

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- 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 policies and practices (P1020-2, *Laboratory 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 EPC-CP-QAP-001, *EPC-CP Quality Assurance Plan*, ESHQSS-AP-007, *ESHQSS Document Control Procedure*, and EPC-CP-QP-0901, *EPC-CP Quality Procedure to Supplement ESHQSS-AP-007, ESHQSS Document Control Procedure*.

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 them.

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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) 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 P1020-1, *Laboratory Records Management* and ESH-AP-006, *Records Management Procedure*. The Stormwater 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
- QA documents
- General correspondence that affects the program (e.g., phone calls, emails, and log entries that provide directions or results in decisions)
- Applicable Integrated Work Documents (IWDs)

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- General MSGP compliance documents (correspondence with regulators and stakeholders, notice of change conditions, etc.)

Analytical data packages are stored in the Electronic Document and Records Management system (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.

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.

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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*.

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 discharge points associated with permitted industrial activity facilities located throughout the Laboratory. Information recorded documents all observations that are required by the MSGP. For information

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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 to 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 Permit Limit Exceedances

Federal stormwater regulations implemented under the Laboratory's MSGP require corrective action to be taken when an exceedance of permit limits (i.e., numeric effluent limitations, or an AIM triggering event) occurs. The identification of a pollutant source(s) contributing to a permit limit exceedance is addressed through the creation of a condition requiring corrective action 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 permit limit exceedance occurs, the Storm Water Tracking System/Discharge Monitoring Report Manager assures the analytical data is reviewed and submitted on the required DMR. The Program Lead enters exceedances in the MSGP CAR database. DEPs, and other SWPPP team members then investigate the occurrence, implement corrective action and document all corrective actions taken.

Impaired waters constituents and indicator parameters are documented on DMRs as report only.

4.5.5 Stormwater Monitoring

The MSGP requires stormwater monitoring to address four separate criteria: quarterly benchmark, indicator parameters, numeric 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 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 and indicator parameter monitoring is used to determine the effectiveness of stormwater controls. 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

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quarterly collection are documented (see *Adverse Weather Conditions* in Part 4.1.5 of the MSGP). Indicator parameter monitoring is conducted quarterly throughout the permit term for pH, Chemical Oxygen Demand and Total Suspended Solids. For a Sector D facility (i.e., the Asphalt Batch Plant) Polycyclic Aromatic Hydrocarbons, which are also considered indicator parameters, are monitored semi-annually in year 1 and year 4 of permit coverage. 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.

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.

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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*,
- 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

Activity	Responsibility
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:

- **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.

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- **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.

Table 4.5.5.1-1. Quality Control Sampling Requirements		
Sample Type	Analysis	Frequency
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 Samples*.

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 may submit the DMRs for NPDES Permits. NetDMR roles and permissions for these functions are described on the EPA NetDMR Streamlined Registration (<https://npdes-ereporting.epa.gov/net-netdmr/>).

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4.5.6.2 Annual Reports

The Laboratory is required to submit an annual report electronically to the EPA by January 30th for each year of permit coverage that includes a summary of the findings from inspections and corrective action documentation. The documentation includes the following:

- Permit information,
- Facility information,
- 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
- Certification information.

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*
- 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.

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.

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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 Stormwater 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)*.

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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 is 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

EPC-CP is the Office of Record for this document that must be maintained in accordance with PD1020, *Document Control and Records Management*; ESHQSS-AP-007, *ESHQSS Document Control Procedure*; 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*.

AIM	Additional Implementation Measure
BMP	Best Management Practice
CDX	Central Data Exchange
CFR	Code of Federal Regulations
CISEC	Certified Inspector of Sediment and Erosion Control
CPESC	Certified Professional in Erosion and Sediment Control
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

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EPC-CP	Environmental Protection and Compliance-Compliance Programs
FOD	Facility Operations Director
LANL or Laboratory	Los Alamos National Laboratory
LLV	List of Limited Value
MOV	Management Observation and Verification
MSGP	Multi-Sector General Program
NeT	NPDES eReporting Tool
NMAC	New Mexico Administrative Code
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
QC	Quality Control
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 and Intrastate Surface Waters*

LANL Documents:

SD330, *Los Alamos National Laboratory Quality Assurance Program*

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P101-17, *Excavation/Fill/Soil Disturbance*

P300, *Integrated Work Management*

P322-4, *Issues Management*

P328-2, *Independent Assessment*

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*

ESHQSS-AP-007, *ESHQSS Document Control Procedure*

EPC-DO-QP-100, *General Field Safety*

EPC-CP-QAP-001, *EPC-CP Quality Assurance Plan*

EPC-CP-QP-0901, *EPC-CP Quality Procedure to Supplement ESHQSS-AP-007, ESHQSS Document Control Procedure*

EPC-DO-TP-120, *Project Review Process*

EPC-CP-QP-2109, *MSGP Corrective Actions*

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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*

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*

10.0 APPENDICES

None.

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 Stormwater Permitting/Compliance Team Leader

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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 <i>SD100, Integrated Safety Management System Description</i> <i>PD100, DOE/NNSA Approved Los Alamos National Laboratory</i> <i>10 CFR 851, 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	<i>PD781, Training Program Management</i> <i>P1040, Software Quality Management</i> <i>P781-1, Conduct of Training</i>	EPC-CP-QAP-001
CRD Attach. 2, 3. Criterion 3 – Management/Quality Improvement	<i>P101-18, Procedure for Pause/Stop Work</i> <i>PD322-4, Issues Management</i> <i>PD324, LANL Metrics Program</i> <i>P330-6, Nonconformance Control and Reporting</i>	EPC-CP-QAP-001
CRD Attach. 2, 4. Criterion 4 – Management/Document and Records	<i>PD1020, Document Control and Records Management</i> <i>P1020-1, Laboratory Records Management</i> <i>P1020-2, Laboratory Document Control</i>	EPC-CP-QAP-001 ESH-AP-006 ESHQSS-AP-007 EPC-CP-QP-0901
CRD Attach. 2, 5. Criterion 5 – Performance/Work Processes	<i>SD100, Integrated Safety Management System Description Document with embedded 10 CFR 851 Worker Safety and Health Program</i> <i>PD100, DOE/NNSA Approved Los Alamos National Laboratory</i> <i>10 CFR 851 Worker Safety and Health Program Description</i> <i>P151-1, LANL Packaging and Transportation Program Procedure</i> <i>PD311, Requirements System and Hierarchy</i> <i>SD330, Los Alamos National Laboratory Quality Assurance Program</i> <i>PD340, Conduct of Engineering for Facility Work;</i>	<i>EPC-CP-PIP-2101, NPDES Multi-Sector General Permit Program Implementation Plan</i> <i>EPC-CP-TP-2102, Installing, Setting Up, and Operating ISCO Samplers</i> <i>EPC-CP-TP-2103, Inspecting ISCO Stormwater Runoff Samplers and Retrieving Samples</i> <i>EPC-CP-QP-2104, Installing, Inspecting, and Maintaining MSGP Single Stage Samplers</i>

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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)
	P315, <i>Conduct of Operations Manual</i> P330-2, <i>Control and Calibration of Measuring and Test Equipment (M&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&D:</u> PD370, <i>Conduct of Engineering for Research and Development (R&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> ¹	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> ³ P330-2, <i>Control and Calibration of Measuring and Test Equipment (M&TE)</i>	No local implementing procedures, LANL Work Practices apply.

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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, 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>	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> ¹	No local implementing procedures, LANL Work Practices apply.
CRD Attach. 4, Safety Software Quality Assurance Requirements for Nuclear Facilities ²	P1040, <i>Software Quality Management</i> ² Form 2033, <i>Safety Non-Safety Software Determination, Categorization, and Software Risk Level</i>	No local implementing procedures, LANL Work Practices apply.
¹ 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> . ² 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. ³ For ML-4 items and activities, inspections and tests are performed to extent required by the applicable codes and/or standards. ⁴ Core work practices applicable to R&D are described in SD601, <i>Conduct of Research and Development</i> .		


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Attachment 2: MSGP Facilities Associated with Industrial Activities

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MSGP Facilities Associated with Industrial Activities						
Location	Permitted Facility	Operation	Activity	Sector	Assessment Unit	Canyon
TA-3-0038	TA-3-0038 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-60-0001	TA-60-0001 Heavy Equipment Yard	Motor Pool and Metal Shop	Vehicle maintenance and fabricated metal products	P1 and AA1	NM-9000.A_047	Sandia
TA-60-0002	TA-60-0002 Warehouse	Warehousing	Vehicle fueling	P1	NM-9000.A_047	Sandia

ATTACHMENT 16: EPC-CP-QP-2108, *MSGP ROUTINE FACILITY INSPECTIONS*

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Environment, Safety, Health, and Quality Directorate

Environment Protection and Compliance – Compliance Programs Group

Quality Procedure

MSGP Routine Facility Inspections

Hazard Grading:	<input checked="" type="checkbox"/> Low	<input type="checkbox"/> Moderate	<input type="checkbox"/> High/Complex
Usage Level:	<input checked="" type="checkbox"/> Reference	<input type="checkbox"/> UET	<input type="checkbox"/> Mixed: UET Sections: _____
Status:	<input type="checkbox"/> New	<input checked="" type="checkbox"/> Major Revision	<input type="checkbox"/> Minor Revision
	<input type="checkbox"/> Review w/No Changes	<input type="checkbox"/> Other: _____	
Safety Basis:	<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	11-06-2023

Derivative Classifier: ☒ Unclassified or ☐ _____

Name:	Organization:	Signature:	Date:
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EPC-CP RLM:	Organization:	Signature:	Date:
Terrill W. Lemke, Team Leader	EPC-CP	Signature on File	11-20-2023
Responsible Line Manager:	Organization:	Signature:	Date:
Sarah Holcomb, Acting Group Leader	EPC-CP	Signature on File	11-21-2023

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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.

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REVISION HISTORY

Document Number and Revision <i>[Include revision number, beginning with Revision 0]</i>	Effective Date <i>[Document Control Coordinator inserts effective date]</i>	Description of Changes <i>[List specific changes made since the previous revision]</i>
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.
EPC-CP-QP-2108 R1	11/21/2023	This document supersedes EPC-CP-QP-2108 R0. Reviewed and revised to the new 2021 MSGP language and requirements throughout procedure. Updated Attachment 1 w/ screen shots from ECMS software platform. Revised all Sections to match new inspection form and changed all references from Maintenance Connection to ECMS. Removed Section 2.5 DESH Manager (roles and responsibilities), removed Section 3.2 Limitations, and updated EPC-CP-QP-022 to EPC-CP-QP-2109.

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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-2109, *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 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 Triad National Security LLC (Triad), the management and operating contractor 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 Environmental Compliance Management System (ECMS) web application on a mobile phone, tablet, notebook, or desktop computer.

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 managed and operated by Triad.

2.0 ROLES AND RESPONSIBILITIES

Specific roles and responsibilities for implementation of requirements contained in this procedure are provided below.

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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 is 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 Stormwater Control Measures (SCMs)),
- Training personnel to use ECMS main application and MyECMS mobile application,
- Performing a quality review of routine facility inspections and “no exposure” site inspections, and
- Assisting customers with issues associated with ECMS main application and MyECMS mobile application.

2.2 Deployed Environmental Professionals

DEPs are responsible for the following:

- Implementing this procedure,
- Being knowledgeable of the requirements contained in site-specific SWPPPs within their assigned Facility Operations Directorate (FOD),
- Meeting qualification requirements identified in EPC-CP-PIP-2101, NPDES *Multi-Sector General Permit Program Implementation Plan*,
- Being trained on EPC-CP-QP-2109, *MSGP Corrective Actions*,
- 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,

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- 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 clearly and accurately,
- Acting as liaison between the FOD 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 SCMs have been installed or old SCMs 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 (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. The Group Leader or designee (i.e., Team Lead) may act 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.

3.0 PRECAUTIONS AND LIMITATIONS

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).

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If conditions prevent fieldwork, document the conditions on the inspection form. Multiple attempts can be documented on the original form. If the due date cannot be met, the field personnel must contact the Program Lead no less than 24 hours before the due date for guidance.

4.0 PREREQUISITE ACTIONS

4.1 Planning and Coordination

1. Schedule work to be completed by the due date associated with the inspection form or as requested by the MSGP Program Lead if an inspection form is not assigned.
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 Chrome or Firefox web browser on a mobile phone, tablet or notebook style computer, log into the MyECMS application (<http://ecms-prod.lanl.gov/MyECMS/>) **OR** the ECMS main application (<http://ecms-prod.lanl.gov/ecms/>) and confirm that the inspection list displayed matches your sites. If the inspection list does not match, contact EPC-CP Data Management personnel for clarification.
5. Click on an inspection to open the inspection form.
6. Click Save to save work in progress and final work. Do not click Submit in MyECMS until all entries have been checked for completeness and accuracy.
7. Always log out 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 (Cell phones are not allowed in Limited Areas or higher. See <https://int.lanl.gov/policy/documents/P217.pdf> for requirements for using portable electronic devices on Laboratory property.)
- LANL issued tablet, notebook or desktop computer with Chrome web browser and Blackberry work applications (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 map(s).
- Current inspection form(s).
- Necessary access keys.

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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, most facilities 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,
- Control measures that need replacement, maintenance, or repair,
- Non-authorized non-stormwater discharges, and
- Erosion of soils at the site, channel and streambank erosion and scour in the immediate vicinity of discharge points.

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-2109, *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 must be met prior to

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discontinuing routine inspections. Such a facility is only required to conduct an annual site inspection.

If the industrial facility is eligible for a “no exposure” exclusion, routine inspections are no longer required. A condition of “no exposure” exists when all industrial materials and activities are protected by a storm-resistant shelter (e.g., moved to an indoor location) to prevent exposure to rain, snow, snowmelt, and/or runoff. A determination of whether a facility is eligible for “no exposure” status is made in coordination with stormwater personnel from EPC-CP, as there are specific documentation and certification requirements that must 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 R1 Form 1, *MSGP Routine Facility Inspection* in ECMS. The form can be filled out in the ECMS mobile application (<http://ecms-prod.lanl.gov/MyECMS/>) or the ECMS main application (<http://ecms-prod.lanl.gov/ecms/>). Work can be saved at any time by clicking the “Save” button at the top of the inspection form.

NOTE: Each item number listed in red font below corresponds to a red numbered box on the screenshot examples.

- [1] **ITEM 1:** Observe the weather at time of inspection. Document the weather and temperature (e.g., Temp. 78°F, sunny, wind less than 5mph) in the text field.
- [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 Comment field.
- [3] **ITEM 3:**
IF the response to **ITEM 2** is “Yes”
THEN answer this question as “N/A”
OR
IF the response to **ITEM 2** is “No”
THEN answer this question 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 Comment field.
- [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 Comment field.
- [6] **ITEM 6:** Check the outfall for each of the following:

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- Does not have any **new** evidence of erosion **since the last inspection**,
- Free of evidence of pollutants in the discharges and/or the Receiving Water,
- Free of unauthorized non-stormwater discharges.

Describe any observations in the Comment field.



- [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 Comment field (e.g., repair berm, replace rip rap, etc.).
- [8] Repeat Steps 6 through 7 for each outfall shown on the work order if the location has more than one outfall.
- [9] **ITEM 8:** By comparing the MSGP site map to each SCM, click the box next to each control measure inspected. 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 Comment field.
- [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.
- [10] **ITEM 9:** Check each sector of NPDES specified industrial area/activity is inspected for exposure to stormwater (e.g., metal fabrication; foundry operations; asphalt production; 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 Comment field of the task line.
- [c] For industrial activities that do not occur at the facility, select "N/A".
- NOTE:** Unless the facility is entirely paved, it may have dust generation or tracking issues.
- [11] Repeat Step 10 for each industrial area/activity shown on the work order if the facility has more than one sector of NPDES specified industrial area/activity.

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- [12] **ITEM 10:** Check the facility is free of any incidence of non-compliance not documented elsewhere on the inspection questionnaire. Describe any additional incidences of non-compliance in the Comment field of the task line.
- [13] **ITEM 11:** Check the facility meets the MSGP requirements with existing control measures. Describe any additional control measures needed to comply with the Permit.
- [14] **ITEM 12:** Additional notes, observations, or site conditions not documented in a question field above can be documented in the “Additional information” field.
- [15] After all questions have been completed, click the “Save” button at the top of the page.

5.2 Completing the Inspection Form

See Attachment 1 for a screen shot example of completing EPC-CP-QP-2108 R1 Form 1 in ECMS.

- [1] Ensure the inspection form has been filled out completely.
- [2] **ITEM 13:** Click the Date Selector icon  on the far right of the question. Select the date the **inspection was conducted** and **not the date the form was filled out**.
 - [a] IF work needs to be performed over multiple days, THEN note the date and time the work began in the Additional information field (**ITEM 12**).
- [3] **ITEM 14:** Document the time the inspection was conducted in the text field.
- [4] **ITEM 15:** Click the magnifying glass icon  on the far right of the question and select the name of the inspector conducting the inspection from the list.
- [5] **ITEM 16:** Capture an electronic signature by drawing inside the dotted line box with a computer mouse on a desktop screen OR a finger on a tablet screen.
- [6] Ensure the inspection form has been filled out completely.
- [7] After all fields have been completed, make sure you have clicked the “Save” button at the top of the page.
 - [a] IF the inspection is filled out in the ECMS mobile application (MyECMS), THEN also click the Submit button at the top of the page.

5.3 Completing the Certification Statement

The inspection form can be certified with signatures on a paper copy OR it can be certified with electronic signatures. See Attachment 1 for a screen shot example of the Certification Statement in EPC-CP-QP-2108 R1 Form 1.

- [1] Open the completed inspection in the **ECMS main application** (<http://ecms-prod.lanl.gov/ecms/>).

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- [2] Print the complete inspection to a PDF format and save on the computer desktop.
 - [a] IF the certification will be signed on a paper copy, THEN print the PDF and proceed to Step 4.
 - [b] IF the certification will be signed electronically, THEN proceed to Step 3.
- [3] Open the document in Adobe Acrobat Pro.
 - [a] Using the Text Box icon, add a text box on the “Print name and title” line.
 - [b] Using the Signature icon, add an electronic signature box on the “Signature” line.
 - [c] Using the Date icon, add a date box on the “Date” line.
- [4] **ITEM 17:** Obtain a printed/typed 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.

 - [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, EPC-CP Group Leader, or EPC-CP Team Leader) or as identified as duly authorized signatories in the SWPPP.
 - [b] The manager is certifying the information submitted is “true, accurate, and complete” by signing the inspection form.
- [5] Attach the completed, signed, and certified inspection form to the facility SWPPP.
- [6] Submit a copy of the completed form to the MSGP Program Lead and/or ECMS database administrator.

6.0 TRAINING

The following personnel require training before implementing this procedure.

- EPC-CP MSGP stormwater compliance personnel,
- DEPs,
- Other LANL personnel identified as being required to conduct routine facility inspections 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. Other participating LANL groups may require training documentation

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pursuant to local procedures. All training will be assigned and tracked using the LANL training management system, UTrain.

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 Inspections are signed and certified by individual LANL facilities. The completed forms are maintained in the facility’s SWPPP and managed by the facility’s document management system. Records must be maintained in accordance with [P1020-1](#), *Laboratory Records Management*. The MSGP team may retain a copy for reference purposes.

Records generated as a result of implementing this procedure are identified by title and type below.

Record Title	QA Record	Non-QA Record
EPC-CP-QP-2108 R1 Form 1, <i>MSGP Routine Facility Inspection</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

8.0 DEFINITIONS AND ACRONYMS

8.1 Definitions

See LANL [Definition of Terms](#).

Control Measure – 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.

8.2 Acronyms

See LANL Acronym Master List.

BMP	Best Management Practice
ECMS	Environmental Compliance Management System
EPC-CP	Environmental Protection and Compliance – Compliance Programs
DEP	Deployed Environmental Professional
FOD	Facility Operations Director
LANL or Laboratory	Los Alamos National Laboratory
MSGP or Permit	Multi-Sector General Permit
NPDES	National Pollutant Discharge Elimination System
SCM	Stormwater Control Measure
SWPPP	Stormwater Pollution Prevention Plan

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9.0 REFERENCES

United States Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit for Stormwater Discharges Associated With Industrial Activity (MSGP), March 1, 2021.

Federal Register, National Pollutant Discharge Elimination System (NPDES) 2021 Issuance of the Multi-Sector General Permit for Stormwater Discharges Associated With Industrial Activity. Federal Register: February 19, 2021, Volume 86, Number 32.

Los Alamos National Laboratory Storm Water BMP Manual

P1020-1, *Laboratory Records Management*

P217, *Controlled Portable Electronic Devices*

EPC-CP-QP-2109, *MSGP Corrective Actions*

EPC-CP-PIP-2101, *NPDES Multi-Sector General Permit Program Implementation Plan*

10.0 ATTACHMENTS

Attachment 1: Screenshot Examples of EPC-CP-QP-2108 R1 Form 1, *MSGP Routine Facility Inspection* in ECMS

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**Attachment 1: *MSGP Routine Facility Inspection* in ECMS
Screenshot Examples of EPC-CP-QP-2108 R1 Form 1**

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Inspection Questions - Weather (Section 5.1, Step 1)

1 1. Describe the weather at time of inspection and document the temperature (F).

Inspection Questions - Within the Facility Boundary (Section 5.1, Steps 2-5)

WITHIN THE FACILITY BOUNDARY

2 3. Is the facility free of previously unidentified discharges from and/or pollutants that have occurred since the last inspection? If No, describe.

☐ Yes
☐ No

Comment

3 4. Has a CAR been previously initiated for discharge identified in the previous question?

☐ Yes
☐ N/A
☐ No

Comment

4 5. Is the facility free of discharge of pollutants at the time of inspection? If No, describe.

☐ Yes
☐ No

Comment

5 6. Is the facility free of evidence of, or the potential for, pollutants entering the drainage system. If No, describe.

☐ Yes
☐ No

Comment

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Attachment 1: *MSGP Routine Facility Inspection* in ECMS (cont.)
Screenshot Examples of EPC-CP-QP-2108 R1 Form 1

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Inspection Questions - Outfalls (Section 5.1, Steps 6-8)

OUTFALL INSPECTION (identify needed maintenance and repairs, failed control measures that need replacement, or a description of corrective actions in relevant question comment).

6

8. Monitored Outfall 079: Is the outfall free of evidence of erosion; free of evidence of pollutants in discharges and/or Receiving Water; AND free of any unauthorized non-stormwater discharges?

- ☐ No
☐ Yes

Comment

7

9. Monitored Outfall 079: Are flow dissipation devices operating effectively?

- ☐ Yes
☐ N/A
☐ No

Comment

Inspection Questions – Control Measures (Section 5.1, Step 9)

CONTROL MEASURES

8

11. Select control measures inspected. (Identify needed maintenance, repairs, failed control measures that need replacement, or a description of corrective action in text box below.)

- ☐ EnviroSoxx w/ MetalLoxx 0900103200005
☐ EnviroSoxx w/ MetalLoxx 0900103200006
☐ Erosion Control Blanked 0900101060004
☐ Gravel Mulch 0900101050002
☐ Riprap 0900104060003
☐ Vegetative Buffer Strip 0900102030001

Comment

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Attachment 1: *MSGP Routine Facility Inspection* in ECMS (cont.)
Screenshot Examples of EPC-CP-QP-2108 R1 Form 1

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Inspection Questions – Areas/Activities Exposed to Stormwater (Section 5.1, Steps 10-11)

AREA/ACTIVITY EXPOSED TO STORMWATER (identify needed maintenance or a description of corrective actions in relevant question comment).

9

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

☐ Yes
☐ N/A
☐ No

Comment

14. Transfer areas for substances in bulk: controls adequate (appropriate, effective, and operating)? If "No" describe.

☐ Yes
☐ N/A
☐ No

Comment

15. Product/chemical storage areas (raw material): controls adequate (appropriate, effective, and operating)? If "No" describe.

☐ Yes
☐ N/A
☐ No

Comment

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Attachment 1: *MSGP Routine Facility Inspection* in ECMS (cont.)
Screenshot Examples of EPC-CP-QP-2108 R1 Form 1

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Inspection Questions –Facility and Additional Information (Section 5.1, Steps 12-14)

10

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

☐ Yes
☐ No

Comment

11

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

☐ Yes
☐ No

Comment

12

32. Additional information:

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Attachment 1: MSGP Routine Facility Inspection in ECMS (cont.)
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Inspection Questions –Completing the inspection form (Section 5.2, Steps 2-5)

13

33. Date inspection completed.

mm/dd/yyyy

14

34. Time Inspection Completed.


15

35. Select inspector name.

16

36. Signature/Name

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



Clear

Inspection Questions - Certification Statement (Section 5.3, Step 4)

17

7.

Certification Statement

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


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

38. Print name and title:

39. Signature:

40. Date:

ATTACHMENT 17: EPC-CP-QP-2109, *MSGP CORRECTIVE ACTIONS*

EPC-CP-QP-2109	Revision: 0	
Effective Date: 06/02/2022	Next Review Date: 06/02/2025	

Environment, Safety, Health, and Quality, Safeguards and Security Directorate
Environmental Protection and Compliance Division – Compliance Programs
Quality Procedure

MSGP Corrective Actions

Hazard Grading:	<input checked="" type="checkbox"/> Low	<input type="checkbox"/> Moderate	<input type="checkbox"/> High/Complex
Usage Level:	<input checked="" type="checkbox"/> Reference	<input type="checkbox"/> UET	<input type="checkbox"/> Mixed: UET Sections: _____
Status:	<input type="checkbox"/> New	<input checked="" type="checkbox"/> Major Revision	<input type="checkbox"/> Minor Revision
	<input type="checkbox"/> Review w/No Changes		<input type="checkbox"/> Other: _____
Safety Basis:	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> USQ	<input type="checkbox"/> USI Number: _____

Document Owner/Subject Matter Expert:

Name:	Organization:	Signature:	Date:
Holly L. Wheeler	EPC-CP	Signature on File	05-05-2022

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Name:	Organization:	Signature:	Date:
Steven E. Wolfel	EPC-CP	Signature on File	05-06-2022

Approval Signatures:

EPC-CP Reviewer:	Organization:	Signature:	Date:
Leslie J. Dale	EPC-CP	Signature on File	05-06-2022
EPC-CP RLM:	Organization:	Signature:	Date:
Terrill W. Lemke, Team Leader	EPC-CP	Signature on File	05-20-2022
EPC-CP RLM	Organization:	Signature:	Date:
Steven L. Story, Group Leader	EPC-CP	Signature on File	06-02-2022

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Revision History

Document Number and Revision <i>[Include revision number, beginning with Revision 0]</i>	Effective Date <i>[Document Control Coordinator inserts effective date]</i>	Description of Changes <i>[List specific changes made since the previous revision]</i>
0	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	12/20/2018	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.
EPC-CP-QP-2109 R0	06/02/2022	This document replaces/supersedes EPC-CP-QP-022 R3. This Revision incorporates new 2021 MSGP permit requirements, a new document number, and other organizational updates.

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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 the Environmental Protection and Compliance Division – Compliance Programs (EPC-CP) Storm Water Permitting/Compliance Team (also referred to as EPC-CP MSGP stormwater personnel) are required to perform routine facility inspections and document all identified conditions requiring corrective actions on an inspection form (see EPC-CP-QP-2108). 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 for Triad National Security, LLC (Triad) at Los Alamos National Laboratory (LANL) involved in identifying, implementing, documenting, and entering a condition requiring corrective action. This includes entering a permit limit exceedance or Additional Implementation Measures (AIM) level into the MSGP Corrective Action Report (CAR) database. Part 5.3 of the MSGP permit contains specific documentation requirements relative to corrective actions and AIM. 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 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

Actions specified within this procedure, unless preceded with “should” or “may,” are to be considered mandatory guidance (i.e., “shall”).

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).

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).

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3.0 PREREQUISITE ACTIONS

3.1 Planning and Coordination

DEPs and EPC-CP MSGP stormwater personnel require a CAR database user account ([MSGP-CAR](#)). Facility Operations Directors (FODs), Operations (Ops) Managers and other 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:

- LANL issued desktop computer, 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 (PEDs) 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.
- Safety glasses, if required by site.
- Government issued cell phones are not allowed in secure spaces. Government or privately owned vehicles located inside a LANL secure area but outside any Secure Space boundaries (e.g., the outside of a building) serve as approved storage containers for controlled PEDs. See <https://int.lanl.gov/policy/documents/P217.pdf> for requirements on using PEDs 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 and permanent stormwater control measures (SCMs), 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 are fully knowledgeable of the specific regulatory requirements identified in the MSGP. Additional responsibilities are listed below.

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- Implement this procedure.
- Oversee the corrective action process.
- Identify an AIM triggering condition or other 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 or 90-day exceedance notifications 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 permit limit 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. As part of training, they will conduct an MSGP Routine Facility Inspection (RFI) with the MSGP Program Lead, or other designee, a minimum of once per year. During this activity, the MSGP Program Lead will determine if additional joint inspections are needed and will coordinate any additional inspections with the DEP, as appropriate. Further, they shall be familiar with facility operations and stormwater control measures to minimize potential pollutant sources in stormwater discharge from the site, and proactively maintain control 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 a liaison between the FOD, EPC-CP, DEP Team Leader, Operations Manager, and facility/operations personnel to ensure all corrective actions and AIM triggering conditions are addressed appropriately by overseeing maintenance and/or installation of additional controls, as needed. DEPs are responsible for ensuring a corrective action is completed per MSGP requirements and the corrective action timeline (see Parts 5.1.3, 5.2, and 5.2.2 of the MSGP). They also provide timely updates to the CAR database for closure or update of corrective actions as they are implemented.

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When permit limits are exceeded, DEPs facilitate review of the condition requiring corrective action by the Stormwater Pollution Prevention Team and coordinate the effort to identify the source and maintain existing controls, as well as implement additional controls, to prevent further exceedances.

If the DEP or EPC-CP MSGP stormwater personnel determine that additional controls are necessary, or that existing controls are insufficient and require replacement with a different type of control, the DEPs are responsible for the selection and oversight of proper installation of appropriate control measures per guidance provided in the [LANL Stormwater BMP Manual](#).

CAUTION

Failure to appropriately control pollutant discharges can result in fines and penalties.

Implementing the same SCM 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 or AIM triggering conditions identified in the MSGP. AIM level triggering conditions require sequential and increasingly robust responses when a benchmark exceedance occurs and require additional SCMs to be implemented.

DEPs will notify the EPC-CP MSGP data administrator or MSGP Program Lead of key personnel changes (FOD, Ops Manager, additional DEP, or other key managers) to ensure automated CAR status notifications are distributed to appropriate personnel.

4.3 EPC-CP Storm Water Permitting/Compliance Team Leader

The EPC-CP Storm Water Permitting/Compliance 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. The team leader may certify MSGP discharge monitoring reports or RFIs. 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 notifies 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 may also act as the duly authorized signatory that certifies the Annual Report. The group leader notifies upper management of instances of non-compliance with the permit or other identified environmental risk.

4.5 DEP Team Leader

The DEP Team Leader works with programmatic entities and the FOD to identify resources for their industrial sites to ensure permit requirements are implemented. The team leader is responsible for

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the performance of DEPs. The team leader also provides oversight for ensuring that industrial sites are complying with the MSGP and is responsible for coordinating with the EPC-CP Storm Water Permitting/Compliance Team Leader and MSGP Program Lead and/or upper management for instances of non-compliance with the permit or other identified environmental risk the team leader becomes aware of. In addition, the DEP Team Leader may certify MSGP SWPPPs.

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. The FOD is responsible for developing, implementing, enforcing, and maintaining the SWPPP, and is accountable for SWPPP requirements applicable to their facility. In addition, they are responsible for maintaining trained and qualified DEPs and Waste Management Coordinators (WMCs) on staff.

5.0 PROCESS DESCRIPTION

Requirements regarding corrective actions are described in Part 5 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

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 so LANL's effluent limits are met, and pollutant discharges are minimized.

- 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]).
- A discharge violates a numeric effluent listed in Table 2-1 of the MSGP and/or sector-specific requirements identified in Part 8 of the permit.
- SCMs 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.
- 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.
- An AIM triggering condition occurred (i.e., the average of four quarterly sampling results exceeds an applicable benchmark).

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- A visual assessment shows evidence of stormwater pollution.
- 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.

DEP and/or EPC-CP MSGP stormwater personnel

- [2] Enter all conditions triggering the need for corrective action review into the EPC-CP MSGP CAR database within 24 hours of becoming aware of such condition.

DEP and/or Facility Personnel (e.g., the Stormwater Pollution Prevention Team)

- [3] Take immediate action to mitigate the condition requiring a corrective action.
- [4] If needed, follow the permit timeline and process for an individual corrective action or AIM level triggering condition that requires maintenance or installation of additional SCMs.
- [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 or AIM level triggering condition.

5.2 Corrective Action and AIM Level Deadlines and Documentation

Specific deadlines for taking corrective action or additional implementation measures, as well as required documentation are provided in the subsections below.

5.2.1 Immediate Action

DEP and/or Facility Personnel (e.g., the Stormwater Pollution Prevention Team)

- [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] Minimize or prevent the discharge of pollutants, taking all reasonable steps necessary, 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.

NOTE

For minor conditions, immediate action is often sufficient, and no additional action is necessary.

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- [2] **IF** a condition is identified at a time in the workday when it is too late to initiate corrective action (i.e., 3:00 pm or later),

THEN:

- [a] Corrective action will begin no later than the following workday morning.
- [b] Implement the requirements identified in Section 5.2.1 [1] above.
- [c] Enter the following information in the MSGP CAR database:
 - For spills or leaks provide a description of the incident and include material, date/time, amount, location, why the spill occurred and whether it resulted in the discharge of pollutants to waters of the U.S., through stormwater discharge or otherwise.
 - Date the condition was identified; and
 - Description of immediate actions taken (see Part 5.1.3.1) to minimize or prevent the discharge of pollutants. For spills or leaks, include the response actions, date/time clean-up was completed, notification made, and the staff involved. Include any measures taken to prevent the reoccurrence of such releases.

CAUTION

Solely calling or e-mailing personnel to request 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 Best Management Practices (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 (e.g., the Stormwater Pollution Prevention Team)

- [1] **IF** additional action is required,

THEN:

- [a] Complete the corrective action (e.g., install a new, or modify an existing stormwater control and make it operational, or complete a repair) before the next storm event or within 14 calendar days from the time of discovery.
- [b] For an AIM Level 1 exceedance, review the SWPPP and implement additional measures (considering good engineering practices) that will bring the exceedance below the benchmark threshold.
- [c] When a determination is made that no additional action is required, document in the CAR database, why existing control measures will bring the exceedance (for AIM Level 1) below the benchmark threshold for the next 12 months.

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- [d] Enter the dates when each condition was completed (or is expected to be completed) in the CAR database.
- [2] **IF** completion of the corrective action is infeasible within the 14-day timeframe, **THEN:**
 - [a] Document the rationale and a schedule for completion of the corrective action in the CAR database.
 - [c] Complete the corrective action within 45 days of discovery.
 - [d] Modify the SWPPP (within 14 calendar days of completing corrective action work) to add changes to controls or administrative procedures.
- [3] **IF** completion of the corrective action will not occur within the 45-day timeframe, **THEN:**
 - [a] On day 40, notify the EPC-CP Program Lead that the 45-day timeframe will be exceeded. Provide a schedule for completion of the corrective action and rationale for the extension. An extension beyond 45 days is not permitted for an AIM Level 1 exceedance.

NOTE

These time intervals are not grace periods, but are schedules considered reasonable for documenting findings 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 do not persist indefinitely (see Part 5.1.3.2 of the MSGP).

EPC-CP MSGP stormwater personnel

- [b] Prepare and submit 45-day exceedance notification to EPA Region 6 by day 45 based on information entered into the CAR database by the DEPs.
- [4] In the case of an AIM Level 1 exceedance, send out notification to EPC-CP stormwater field personnel to stop monitoring at the outfall for the parameter that exceeded benchmark.
 - [a] Once the condition requiring corrective action has been closed, send notification to EPC-CP stormwater field personnel to start monitoring at the outfall for the parameter that exceeded benchmark.
- [5] Continue quarterly benchmark monitoring for the next four quarters for the parameter(s) that caused the AIM triggering condition, beginning no later than the next full quarter after completion of additional measures.

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- [6] **IF** continued quarterly benchmark monitoring results indicate an AIM triggering condition has not occurred after four quarters of monitoring,

THEN:

- [a] Discontinue benchmark monitoring for that parameter until monitoring resumes in year 4 of the permit or discontinue monitoring for the remainder of the permit term (if after year four).

5.2.3 AIM Level 2

DEP and/or Facility Personnel (e.g., the Stormwater Pollution Prevention Team)

- [1] **IF** an AIM Level 2 exceedance occurs,

THEN:

- [a] Review the SWPPP, and
- [b] Implement additional pollution prevention/good housekeeping SCMs (considering good engineering practices) within 14 calendar days of identification, beyond what was implemented for the AIM Level 1 response. This action is expected to be sufficient to bring the exceedance below the benchmark threshold.

- [2] **IF** completion of the corrective action is infeasible within the 14-day timeframe,

THEN:

- [a] Document the rationale and provide a schedule for completion of the corrective action in the CAR database.
- [b] Complete the corrective action within 45 days of identification of the condition.
- [c] Update the CAR database to include:

- Actions taken and/or outstanding, and
- Date and time the corrective action was completed.

- [3] **IF** completion of the corrective action will not occur within the 45-day timeframe,

THEN:

- [a] On day 40, notify the EPC-CP Program Lead that the 45-day timeframe will be exceeded. Provide a schedule for completion of the corrective action and rationale for the extension.

EPC-CP MSGP stormwater personnel

- [b] Prepare and submit the 45-day exceedance notification to EPA Region 6 based on information entered into the CAR database by the DEP.
- [4] Send out notification to EPC-CP stormwater field personnel to stop monitoring at the outfall for the parameter that exceeded benchmark.

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- [a] Once the condition requiring corrective action has been closed, send notification to EPC-CP stormwater field personnel to start monitoring at the outfall for the parameter that exceeded benchmark.
- [5] Continue quarterly benchmark monitoring for the next four quarters for the parameter(s) that caused the AIM triggering condition, beginning no later than the next full quarter after completion of additional measures.
- [6] **IF** continued quarterly benchmark monitoring results indicate an AIM triggering condition has not occurred after four quarters of monitoring,
THEN:
 - [a] Discontinue benchmark monitoring for that parameter until monitoring resumes in year 4 of the permit or discontinue monitoring for the remainder of the permit term (if after year four).

5.2.4 AIM Level 3

DEP and/or Facility Personnel (e.g., the Stormwater Pollution Prevention Team)

- [1] **IF** an AIM Level 3 exceedance occurs,
THEN:
 - [a] Identify the schedule for installing the appropriated structural source and/or treatment SCMs within 14 days.
 - [b] 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) within 60 days.
 - [c] Controls, treatment technologies, or treatment train will be appropriate for the pollutants that triggered the AIM Level 3 and must be more rigorous than the control measures implemented for the AIM Level 1 and 2 responses.
- [2] **IF** completion of the corrective action is infeasible within the 60-day timeframe,
THEN:
 - [a] Document the rationale and provide a schedule for completion of the corrective action in the CAR database.
 - [b] Complete corrective action within 90 days of identification of the condition.
 - [c] Update the CAR database to include:
 - Actions taken and/or outstanding, and
 - Date and time the corrective action was completed.
- [3] **IF** completion of the corrective action will not occur within the 90-day timeframe,
THEN:

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- [a] On day 85, notify the EPC-CP Program Lead that the 90-day timeframe will be exceeded. Provide a schedule for completion of the corrective action and rationale for the extension.

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- [b] Prepare and submit the 90-day exceedance notification to EPA Region 6 by day 90 based on information entered into the CAR database by the DEP.
- [4] Send out notification to EPC-CP stormwater field personnel to stop monitoring at the outfall for the parameter that exceeded benchmark.
- [a] Once the condition requiring corrective action has been closed, send notification to the EPC-CP stormwater field personnel to start monitoring at the outfall for the parameter that exceeded benchmark.
- [5] Continue quarterly benchmark monitoring at all affected outfalls for the next four quarters for the parameter(s) that caused the AIM triggering condition, beginning no later than the next full quarter after completion of additional measures.
- [6] **IF** continued quarterly benchmark monitoring results indicate an AIM triggering condition has not occurred after four quarters of monitoring,
THEN:
- [a] Discontinue benchmark monitoring for that parameter until monitoring resumes in year 4 of the permit or discontinue monitoring for the remainder of the permit term (if after year four).
- [7] **IF** continued quarterly benchmark monitoring results indicate an AIM triggering event has occurred after four quarters of monitoring,
THEN:
- [a] EPA may require the operator to apply for an individual permit.

5.2.5 AIM Exceptions

An AIM Level exceedance may qualify for an exception from specific AIM requirements and continued benchmark 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:

- Solely attributable to natural background pollutant levels;
- Due to run-on;
- Due to an abnormal event;
- Demonstrated to not result in an exceedance to 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
- Demonstrated to not result in any exceedance of water quality standards.

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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.

5.3 Effect of Corrective Action

When the condition requiring corrective action is a permit violation (e.g., non-compliance with an effluent limit or exceedance of a water quality standard), correcting it does not remove the original violation. Additionally, failing to take corrective action in accordance with Part 5 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 5.1.4 of the MSGP).

5.4 Substantially Identical Discharge Points

When the condition requiring corrective action is associated with an outfall that has been identified as a “substantially identical discharge point” (see Parts 3.2.4.5 and 4.1.1 of the MSGP), a review will assess the need for corrective action for all related substantially identical discharge points. Any necessary changes to control measures that affect these other discharge points 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 Parts 5.1.3, 5.2.3.2, 5.2.4.2 and 5.2.5.2 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 the condition requiring corrective action 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;

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- Uncontaminated condensate from air conditioners, coolers/chillers, and other compressors and from the outside storage of refrigerated gases or liquids;
- Irrigation/landscape drainage, provided all pesticides, herbicides, and fertilizers have been applied in accordance with the approved labeling;
- Pavement wash waters, provided that detergents or hazardous cleaning products are not 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 6.2.3 of the MSGP), or any other toxic or hazardous materials, unless residues are first cleaned up using dry clean-up methods (e.g., applying absorbent material and sweeping, using hydrophobic mops/rags) and appropriate control measures have been implemented to minimize discharges of mobilized solids and other pollutants (e.g., filtration, detention, settlement);
- External building/structure 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) and control measures are in place to minimize discharge of mobilized solids and other pollutants (e.g., filtration, detention, settlement);
- Uncontaminated ground water or spring water;
- Foundation of footing drains where flows are not contaminated with process materials;
- Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but not intentional discharges from the cooling tower (e.g., “piped” cooling tower blowdown or drains); and
- Any authorized non-stormwater discharge (see above bullets) or any stormwater discharge authorized by the permit mixed with a discharge authorized by a different NPDES permit and/or discharge that does not require NPDES permit authorization.

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 is used to populate a report 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 Firefox, Chrome, or Edge, access the CAR database at epc.lanl.gov.
- [2] From the main screen, click on “Multi-Sector General Permit Corrective Action Report (MSGP-CAR).”

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[3] Click on “Enter/Edit CAR Data.”

[4] Click on the black box at the right of the screen “Create New CAR.”

[a] 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 down indicator and selecting the relevant facility (e.g., TA-55-0005 Warehouse). If the correct facility does not show up, hit the “Load More Rows” button at the bottom of the screen.
- **Item 2:** Provide information about the specific location where the condition requiring corrective action was found (e.g., the northeast corner of the TA-60 Material Recycling Facility).
- **Item 3:** Date/Time the problem was identified (mm/dd/yyyy hh:mm) (*the inspection date or the date you first become aware of the issue*). Click on the calendar to the right of the screen and select the correct date. Change the gray buttons to indicate the correct time (hh:mm).

All dates and times will be entered as mm/dd/yyyy hh:mm in 24-hr (military time) format. Time is tracked to document whether immediate action was taken, whether the issue was documented within 24 hours, and the specific time interval before a corrective action is completed and closed (see Section 5.2 of this procedure for corrective action and AIM Level deadlines). Do not leave time as 00:00 (the system default) unless the action occurred at midnight.

- **Item 4:** FOD by clicking on the down button on the right of the screen and selecting the correct entity (e.g., WFO).
- **Item 5:** 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.*) Click on the calendar to the right of the screen and select the correct date. Change the gray buttons to indicate the correct time (hh:mm). All dates and times will be entered as mm/dd/yyyy hh:mm in 24-hr (military time) format.
- **Item 6:** Provide the Z number of the Inspector by typing in the actual Z number, if not already populated correctly. The Z number of the person logged into the database will populate this field.
- **Item 7:** Provide the Z number of the person that identified the condition requiring corrective action, if not already populated correctly. The Z number of the person logged into the database will populate this field.

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.

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- **Item 8:** Report 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 the above information is entered correctly, click “Save.” Once the CAR is saved, the system will return to the CAR Data page, and your newly created CAR will be at the top of the list.

All boxes identified with a red triangle are “required fields” meaning the form cannot be saved unless these fields are completed. For the purpose of fulfilling corrective action documentation requirements, all applicable fields are required fields.

[b] The system will automatically assign a Corrective Action Report identification (ID) number. Once the CAR is saved, the system will return to the CAR Data page, and your newly created CAR will be at the top of the list. Click on the pencil in the left part of the screen, then click “Create Finding Details” at the bottom right corner to enter finding information (see Attachment 1 page 4). Enter the following:

- **Item 11** (see Attachment 1 page 5 of 7): Identify the condition triggering the need for this review by clicking on the down indicator at the right of the screen and selecting the appropriate condition. Most conditions requiring corrective action will meet one of the listed options. If it does not, select “Other” and enter a description of the condition (refer to Attachment 2 for a list of available conditions/finding descriptions).

Qualified personnel (EPC-CP MSGP stormwater personnel and DEPs) must be knowledgeable of these conditions and select the correct one when entering an issue. If there is uncertainty about which condition applies, refer to the definitions in Section 8.1 of this procedure or contact the MSGP Program Lead at 667-1312 or hbenson@lanl.gov for clarification prior to selecting “Other.”

- **Item 12:** If the condition in Item 11 (above) is set to “Other,” enter a description of the condition in this field.
- **Item 13:** Enter “NA” (not applicable) for “outfall” unless the condition is an exceedance of a benchmark value, or numeric effluent limitation guideline (ELG), or the condition occurred at the MSGP outfall such as pollutants identified during a quarterly visual inspection (e.g., 022).
- **Item 14:** Briefly describe the nature of the problem identified during the inspection (e.g., erosion, damage to a SCM, trash, spill, etc.) and the specific evaluation location (e.g., at TA-60 Roads and Grounds).

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Spills or other emergency conditions meeting the criteria for corrective action (identified in Part 5.1 of the MSGP) will require documentation in the CAR database even though the condition was not identified during an inspection.

- **Item 15:** Enter “NA” for “AIM Level” unless an AIM triggering event has occurred. Only EPC-CP MSGP stormwater personnel enter this information.
- **Item 16:** Enter “NA” unless EPA Region 6 has approved documentation provided requesting the AIM exception. Only EPC-CP MSGP stormwater personnel enter this information.
- **Item 17:** Enter the inspection type by clicking on the downward arrow to the right of the screen and selecting the appropriated option. If none of the available options fit, selecting “Other.”
- **Item 18:** If “Other” is selected for Item 17 (above), enter a description of how the problem was identified in this field.
- **Item 19** (see Attachment 1 page 6 of 7): 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 20:** Indicate whether the problem was identified at a Substantially Identical Discharge Point (SIDP) by typing “Y” for yes and “N” for no.
- **Item 21:** If the answer to Item 20 is “Y,” enter the associated SIDP(s) in this field. If the answer to Item 20 is “N,” leave this field blank. SIDPs are identified in the site-specific SWPPPs. For assistance with identifying SIDPs contact the MSGP Program Lead.
- **Item 22:** If the answer to Item 20 is “Y,” describe how the corrective action taken is appropriate for all SIDPs, document any additional corrective action(s) needed for any of the SIDPs, or document why no additional action is needed for the SIDPs. If the answer to Item 20 is “N,” leave this field blank.
- **Item 23:** Did/will the corrective action require modification to the SWPPP? Type in “Y” for yes and “N” for no.
- **Item 24:** 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, is documented in accordance with permit requirements.

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- **Item 25** (see Attachment 1 page 7 of 7): Date/Time corrective action was completed **OR** (see Item 26 below).
- **Item 26:** Expected completion Date/Time (mm/dd/yyyy hh:mm), if the corrective action has not been completed. Once corrective action is complete [(as identified in Item 25 (above))], delete expected completion date. 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. To forecast where a 45-day or 90-day (for AIM Level 3) exceedance notification to EPA is required (see Sections 5.2.2 and 5.2.4 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 27:** If the corrective action is not or will not be completed within 14 days (or 60 days for AIM Level 3), provide the status of the corrective action at the end of the 14- or 60-day timeframe. Include the rationale for why it is infeasible to complete the corrective action within 14 days, and a description of any remaining steps (including timeframe/schedule associated with each step) necessary to complete the corrective action.
- **Item 28:** Date EPA was 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 29:** Date EPA was notified of intent to exceed 90 Days (for AIM Level 3) (mm/dd/yyyy hh:mm) is to be completed by EPC-CP MSGP stormwater personnel to document submittal of notification letter.
- **Item 30:** Enter the date monitoring changed back to baseline status. This information is to be completed by EPC-CP MSGP stormwater personnel based on evaluation of benchmark monitoring.

Once all the above information is entered correctly, click “Save” in the lower right portion of the screen so the corrective action information is retained.

[5] **IF** there are additional conditions to enter requiring corrective action, as described in Section 5.1 [1],

THEN perform these steps:

[a] Click on the “Enter or Edit CAR Data” tab at the top of the screen.

[b] Start with Section 5.7, steps 3 and 4 above and enter the information for Items #1-30.

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5.8 Updating Corrective Actions

DEP or EPC-CP MSGP stormwater personnel

- [1] Access the CAR database at epc.lanl.gov.
 - [a] On the Environmental Protection Compliance (EPC) Applications page click “Multi-Sector General Permit Corrective Action Report (MSGP-CAR).”
 - (b) Click “Enter/Edit CAR Data and scroll down to the corrective action number to be edited.
 - [b] Click on the pencil associate with the CAR # to be edited.
- [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 “Apply Changes” on the bottom right portion of the screen to save all changes to the information. If you do not want to save the change(s), hit the “Cancel” button on the bottom left side of the screen.

5.9 Validation of Corrective Actions

EPC-CP MSGP stormwater personnel

- [1] Access the CAR database at epc.lanl.gov.
- [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 “Report Status,” select “Void.”
 - [b] Provide specific documentation as to why the CAR was voided.
 - [c] The “Void” designation allows MSGP stormwater personnel to manually exclude this information in the annual report.

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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 numeric ELG (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 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 contact the EPC Division IMC for entry into the IM tool.

5.11 Automatic Notifications

- [1] When a new condition requiring corrective action is entered into the CAR database, the FOD, Ops 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 is sent out during the corrective action process depending on the length of time it takes to close the action.
- [3] A notification is sent out when:
- A new corrective action is entered into the database (see Attachment 3);
 - Weekly for outstanding (open) corrective actions (see Attachment 4);
 - A new AIM level (i.e., 1, 2 or 3) triggering event occurs;
 - A corrective action due to a permit limit exceedance is complete; and
 - An AIM level exceedance returns to baseline status.

For all notifications except the last two bullets above, a hyperlink is provided 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 information:

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- FOD,
- Facility,
- A unique Corrective Action identification number assigned by the CAR database,
- Name of the person identifying the condition,
- the date the problem was identified,
- the date the corrective action was initiated,
- the projected completion date,
- a color-coded count (corresponding to the Corrective Action deadlines in Section 5.2 et seq. of this procedure) of the number of days to take action,
- the number of days the issue has been open, and
- the problem description.

These notifications serve to apprise recipients of the status of conditions requiring corrective actions and provide sufficient time for MSGP stormwater personnel to provide documentation to EPA at the 45-day or 90-day deadline. These notifications also allow EPC-CP to manage monitoring status when AIM triggering events occur. In short, they assist the FOD, Ops Managers, DEPs, and EPC-CP stormwater personnel 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.

The training method for this procedure is “self-study” (reading). Other participating groups may require training documentation pursuant to local procedures. All training must be assigned and tracked using the Laboratory training management system, UTrain.

Personnel performing this procedure will be familiar with the most current version of the following procedure:

- EPC-CP-PIP-2101, NPDES Multi-Sector General Permit Program Implementation Plan.

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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.

All records generated as a result of implementing this procedure will be maintained in accordance with P1020-1, Laboratory Records Management.

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-3 of the MSGP).

NOTE

Exceedance of a numeric effluent limitation is a violation of the MSGP (see Part 4.2.3.1 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.

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8.2 Acronyms

See LANL Acronym Master List.

AIM	Additional Implementation Measures
BMP	Best Management Practice
CAR	Corrective Action Report
ELG	Effluent Limitation Guideline
EPA	Environmental Protection Agency
EPC-CP	Environmental Protection and Compliance-Compliance Programs
DEP	Deployed Environmental Professional
ID	Identification
IM	Issues Management
IMC	Issues Management Coordinator
IWD	Integrated Work Document
FOD	Facility Operations Director
FSR	Facility Service Request
LANL or Laboratory	Los Alamos National Laboratory
MSGP	Multi-Sector General Permit
N	No
NA	Not Applicable
NeT	EPA's NPDES eReporting Tool
NPDES	National Pollutant Discharge Elimination System
Ops	Operations
P	Procedure
PD	Program Description
PED	Portable Electronic Device
RFI	Routine Facility Inspection
QA	Quality Assurance
QP	Quality Procedure
SCM	Stormwater Control Measure
SD	System Description
SIDP	Substantially Identical Discharge Point
SWPPP	Stormwater Pollution Prevention Plan
Triad	Triad National Security, LLC
WMC	Waste Management Coordinator
40 CFR	Title 40 of the Code of Federal Regulations

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Y	Yes
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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.

[United States Environmental Protection Agency \(EPA\) National Pollutant Discharge Elimination System \(NPDES\) Multi-Sector General Permit For Stormwater Discharges Associated With Industrial Activity](#)

[Los Alamos National Laboratory Storm Water BMP Manual](#)

[PD100, DOE/NNSA Approved Los Alamos National Laboratory 10 CFR 851 Worker Safety and Health Program Description](#)

[SD100, Integrated Safety Management System](#)

[P101-18, Procedure for Pause/Stop Work](#)

[P1020-1, Laboratory Records Management](#)

[EPC-CP-QP-2108, MSGP Routine Facility Inspections](#)

10.0 ATTACHMENTS

Attachment 1: Screenshot Examples of CAR Database

Attachment 2: List 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

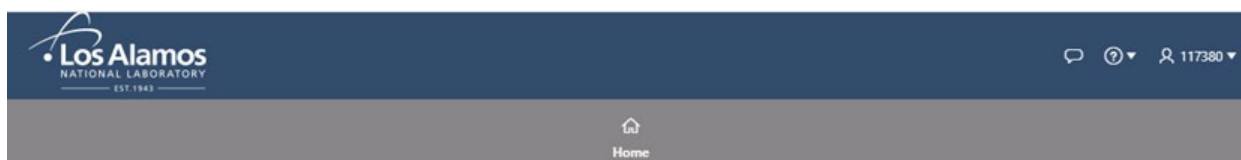
Attachment 5: Example Outstanding Corrective Action Report

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Attachment 1: Screenshot Example of CAR Database

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MSGP-CAR is accessed from the EPC Application page at epc.lanl.gov. To get started, click on “Multi-Sector General Permit Corrective Action Report (MSGP-CAR)” (see yellow highlight below).



Environmental Protection Compliance (EPC) Applications

 EPC Roadmap Click here to view the current EPC Roadmap that shows all scheduled EPC work.	 ChemDB Chemical custodians have easy access to the tools necessary to keep the inventory of chemical containers accurate and complete. Rapid container update capabilities, reports generation, and compliance reporting for management review are examples of this invaluable functionality.	 Land Apply The Land Apply application contains historical data on groundwater discharges (land application) generated from drilling, rehabilitation, development and sampling activities. N3B assumed responsibility for the groundwater monitoring program and land apply activities per the Integrated Facility Groundwater Monitoring Plan, so this application will be used to store/retrieve historical data.
 Multi-Sector General Permit Corrective Action Report (MSGP-CAR) 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 at permitted industrial facilities. The MSGP-CAR application tracks these conditions, responses, and timelines.	 Polychlorinated Biphenyl Application (PCB) The PCB application is a multi-step approach that LANL uses for tracking toxic PCB Substances until they are disposed and keeping in compliance with 15 USC 2601, 40 CFR 761, EH-413-0007-0009/0702 etc. The PCB application displays all be archived data and allows the user to access and retrieve records as needed.	 Radioactive Waste Storage Area (RADSA) RADSA provides waste generators and waste management coordinators with the ability to maintain registered radioactive storage/staging areas per facility/site at the laboratory. WMP ensures DOE requirements for radioactive waste management and surveillance are in accordance with the approved RWMB. Registered facility self-inspections and surveillance of radioactive staging and storage areas ensures LANL radioactive waste management practices are consistent with the requirements in DOE O/M 435.1.
 Request for Analysis (RFA) The RFA application is used for tracking and editing all Requests for Analysis (RFA) for sampling the waste generators. When an RFA is requested, an email is sent to the coordinators who can review both new and old requests.	 Waste Area Tracking System Application used for tracking and updating waste locations across the lab via waste inspections. The application is used for registering and tracking sites so employees know where waste is stored at the laboratory to easily be identified and inspected. The application also tracks if the waste is active, removed, decommissioned, etc. EPA has regulations how the lab handles hazardous waste and this application helps keep track the information so they can remain compliant with those orders.	 Weather Machine The Weather Machine features GIS data in a redesigned layout with live graphs that track temperature, relative humidity, wind, precipitation and pressure. A regional overview allows users to pan around the Lab's 42 square miles and farther into northern New Mexico and beyond with storm watches and warnings featured from the National Weather Service.

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Attachment 1: Screenshot Example of CAR Database (cont.)

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Home

Enter or Edit CAR Data

Reports

Administration

MSGP-CAR - Multi-Sector General Permit Corrective Action Report (MSGP-CAR)

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 at permitted industrial facilities. The MSGP-CAR application tracks these conditions, responses, and timelines.

Enter/Edit CAR Data

Click here to view all MSGP CAR data.

Reports

Click here to view MSGP CAR reports.

Administration

Administration options to control email recipients, user access, etc.

There are two basic functional areas in the system for most users: **Enter/Edit CAR Data** and **Reports**.

Home

Enter or Edit CAR Data

Reports

Administration

CAR Data

Go

Actions

Create New CAR

	CAR #	FOD	Msgp Facility	Inspection Date	Inspector Name	Problem Description	Corrective Action Initiate Date	Corrective Action Complete Date	Report Status
	2023	UI	TA-60 Roads and Grounds	19-OCT-2021 08:30	SANDOVAL LEONARD F	At approximately 8:30 a.m. a John Deere 310 SE Turbo 4 X 4 backhoe with BC # 804058 leaked less than 1/2 a gallon of diesel fuel on asphalt from a fuel line on the left hand side of the paved road just past the clean fill yard at TA-60 Sigma Mesa. At 9:11 a.m. the backhoe was loaded onto a trailer with a drip pan underneath it and delivered to TA-60 HEY to fix the fuel leak.	19-OCT-21	19-OCT-21	A new corrective action
	2022	UI	TA-60 Roads and Grounds	19-OCT-2021 08:12	SANDOVAL LEONARD F	There's a Porta John next to some trees that needs to be anchored with rope and gravel bags so the wind doesn't blow it over.	19-OCT-21	20-OCT-21	A new corrective action
	2021	UI	TA-60-1 Heavy Equipment Yard	15-OCT-2021 11:15	KNIGHT JACOB L	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.	15-OCT-21	15-OCT-21	A new corrective action
	2020	UI	TA-60-1 Heavy Equipment Yard	15-OCT-2021 11:15	KNIGHT JACOB L	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.	15-OCT-21	19-OCT-21	A new corrective action


Click Create New CAR (see black button at the right of the screen shot in the example above).

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Attachment 1: Screenshot Example of CAR Database (cont.)

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Corrective Action Details tab


108243

Home
Enter or Edit CAR Data
Reports
Administration

Create/Edit CAR

MSGP Facility 1

Describe Specific Location where Condition was Found 2

Date/Time Problem Identified 3

FOD 4

Date/Time EPC Notified 5

Inspector Zno 6

Person Identifying Condition Zno 7

Report Status 8

Void Comments 9

Fields with a red triangle are required fields and must be filled out so the record can be created 10

Cancel
Save

Attachment 1: Screenshot Example of CAR Database (cont.)

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Q																		
Go Actions																		
CA#	Problem Description	Inspection Type Other Notes	Corrective Action Desc	SWPPP	Corrective Action Initiate Date	Corrective Action Complete Date	Corrective Action Expected Date	Corrective Action Status	SIDP	SIDP Affected	SIDP Action Taken	EPA Notified Date 45d	Finding Other Desc	Outfall	EPA Notified Date 90d	Baseline Date	AIM Level	AIM Exception
<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><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Cancel

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Attachment 1: Screenshot Example of CAR Database (cont.)

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CA #

2075

Finding Type

Control measures inadequate to meet non-numeric effluent limitations

11

If Other, (describe here):

12

Outfall

NA

13

Problem Description

There is a cut steel plate sitting just outside the canopy used for metal storage in the SE corner of the upper yard

14

AIM Level

NA

15

AIM Exception

NA

16

Inspection Type

Routine facility inspection

17

If Other, (describe here):

18

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Attachment 1: Screenshot Example of CAR Database (cont.)

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Description of corrective action taken or to be taken or if no modifications are needed, the basis for that determination
At the entrance to the TA-60 MRF next the Eco-Bloks there's staining on asphalt that needs to be sprayed with micro-blaze.
19

Was the problem identified at an outfall that has associated SIDPs?
N
20

Which SIDPs are affected?
21

If yes, provide documentation of how corrective action taken is appropriate for all associated SIDPs
22

Does this corrective action require modification of your SWPPP?
N
23

Corrective Action Initiated Date/Time
02-MAR-2022 08:20
24

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Attachment 1: Screenshot Example of CAR Database (cont.)

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Corrective Action Completed Date/Time 02-MAR-2022 14:30	25	
Corrective Action Expected Completion Date/Time 15-MAR-2022 17:00	26	
<p>If corrective action is/will not be completed within 14 days of discovery, describe any remaining steps and the formal schedule necessary to complete:</p> <p>27</p>		
Date EPA Notified to Exceed 45 Days	28	
Date EPA Notified to Exceed 90 Days	29	
Baseline Date	30	
<p> Fields with a red triangle are required fields and must be filled out so the record can be created</p> <p>NA = Not applicable</p>		

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Attachment 2: List of Limited Values in the CAR Database

Finding Type (Item 11 on Page 5 of Attachment 1 Screenshot)

Create/Edit Finding Detail

CA #

2076

Finding Type

Control measures inadequate to meet non-numeric effluent limitations

Unauthorized release or discharge
 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) :

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Attachment 3: Example New Corrective Action Finding Notification

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From: owner-msgpcar_admin@maillist.lanl.gov on behalf of msgpcar_admin@lanl.gov
To: [Vandenbusch, Steve](#); [Martinez, Harold L](#); [Powell, Mark E](#); [Gorman, Bill](#); [Wilburn, Dianne Williams](#); [Caldwell, Jack Andrew](#); [Archuleta, Bernardo](#); [Vargas, Andrew J](#); [Baldonado, Richard](#); [Herrera, Gabriel Clarence](#); [Parrett, Dana](#); [Ulibarri, Phillip Edward](#); [Knight, Jacob Lamar](#); [Diaz, Vanessa Blanca](#); [Bruaw, Lacey Jo](#); [McMillan, Gary Edward](#)
Cc: msgpcar_admin@lanl.gov
Subject: New Corrective Action finding relative to the NPDES MSGP Program
Date: Friday, February 25, 2022 1:00:01 AM

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 3 P.M.), the initiation must begin no later than the following work day morning.

At TA-60-2 Warehouse on 24-FEB-22, a condition requiring a corrective action was observed and a corrective action report was generated per the 2021 Multi-Sector General Permit requirements for stormwater controls at industrial sites. The condition(s) requiring a corrective action(s) is/are listed below.

CA #: 2076 located at TA-60-2 Warehouse

Person Identifying Condition: KNIGHT JACOB L

Description of finding: Control measures inadequate to meet non-numeric effluent limitations

Condition requiring corrective action: Metal recycle bins were uncovered. Recent wind damaged the bin covers beyond repair. New ones have been shipped to the facility for delivery soon. Bins will be hauled off for recycle.

Description of the corrective action taken or to be taken to eliminate the condition or further investigation: Replace bin covers as soon as practicable. Bins are scheduled to be hauled off to recycle in the next day or two.

Status: The Corrective Action was initiated on 24-FEB-22 and is expected to be completed by 10-MAR-22

Click [Here](#) to access the list of MSGP corrective action(s) not yet completed for IF
Click [Here](#) to access the list of MSGP corrective action(s) not yet completed.

The Deployed Environmental Professional (DEP) assigned to your organization/area is KNIGHT JACOB L

The color legend on the linked reports corresponds to the following schedule for corrective action completion as required by the 2021 MSGP:

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Attachment 3: Example New Corrective Action Finding Notification

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You must complete the corrective action within 14 calendar days of discovery.

If completion of final corrective action within 14 days is not feasible, the reason(s) must be documented and a description of steps required, along with a formal schedule for completion (as soon as practicable). This documentation 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 (EPA):

- 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 EPA 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.

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Attachment 4: Example Weekly Notification of Outstanding Corrective Action Findings

Page 1 of 1

From: owner-msgpcar_admin@mailist.lanl.gov on behalf of msgpcar_admin@lanl.gov
To: [Sandoval, Leonard Frank](#); [Wilburn, Dianne Williams](#); [Ulibarri, Phillip Edward](#); [Chavez, Lawrence Valenzuela](#); [McMillan, Gary Edward](#)
Cc: msgpcar_admin@lanl.gov
Subject: Weekly Notification of Outstanding NPDES MSGP Corrective Action finding(s)
Date: Sunday, March 6, 2022 5:00:01 PM

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 outstanding corrective action finding(s).

At TA-60 Asphalt Batch Plant , 1 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 MSGP corrective action(s) not yet completed.

The Deployed Environmental Professional (DEP) assigned to your organization/area is SANDOVAL LEONARD F

The color legend on the linked reports corresponds to the following schedule for corrective action completion as required by the 2021 MSGP:

Finding Type	AIM Level	Days to Complete upon Discovery	Document Steps and Formal Schedule not to Exceed Max Days	Extension Beyond Max Days
Unauthorized release or discharge	NA	14	45	Notify EPA
Control measures inadequate to meet applicable water quality standards	NA	14	45	Notify EPA
Control measures inadequate to meet non-numeric effluent limitations	NA	14	45	Notify EPA
Control measures not properly operated or maintained	NA	14	45	Notify EPA
Change in facility operations necessitated change in control measures	NA	14	45	Notify EPA
Other (describe) :	NA	14	45	Notify EPA
Numeric effluent limitation exceedance	NA	14	45	Notify EPA
Average benchmark value exceedance	1	14	45	Not permitted
Average benchmark value exceedance	2	14	45	EPA Approval Required
Average benchmark value exceedance	3	14	45	EPA Approval Required

The responsible individual must ensure compliance with the proposed completion schedule.

These intervals are not considered grace periods, but are defined schedules to ensure the conditions requiring corrective action do not persist indefinitely.

Where corrective actions result in changes to controls or any procedures documented in the facility's Storm Water Pollution Prevention Plan (SWPPP), the DEP must modify the SWPPP accordingly within 14 calendar days of completing corrective action work.

ATTACHMENT 18: EPC-CP-QP-2105, *MSGP STORMWATER VISUAL ASSESSMENTS*

EPC-CP-QP-2105

Revision: 2



Effective Date: 05/07/2024

Next Review Date: 05/07/2027

Environment, Safety, Health, and Quality 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:
Alethea Banar	EPC-CP	Signature on File	04-24-2024

Derivative Classifier: ☒ Unclassified or ☐ _____

Name:	Organization:	Signature:	Date:
Steven E. Wolfel	EPC-CP	Signature on File	04-24-2024

Approval Signatures:

EPC-CP Reviewer:	Organization:	Signature:	Date:
Jacob Knight, MSGP Program Lead	EPC-CP	Signature on File	04-24-2024
Responsible Line Manager:	Organization:	Signature:	Date:
Terrill W. Lemke, Team Leader	EPC-CP	Signature on File	05-03-2024
EPC-CP RLM:	Organization:	Signature:	Date:
Sarah Holcomb, Group Leader	EPC-CP	Signature on File	05-07-2024

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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.*

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REVISION HISTORY

Document Number and Revision	Effective Date	Effective Date
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.
EPC-CP-QP-2105, R2	05/07/2024	This document supersedes EPC-CP-QP-2105 R1. Reviewed and revised this procedure to the 2021 MSGP language and requirements throughout procedure. Updated Attachment to reflect form from new database. Revised all Sections to match new inspection form, changed all references from Maintenance Connection to ECMS, and removed Section 2.2 Limitations.

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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 (e.g., rain or snowmelt) 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.

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 regulated outfalls at LANL facilities managed and operated by Triad.

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) or in the case of snowmelt, at a time when a measurable discharge occurs.

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 Directorate (FOD), an IWD Part II (2101 Form) will address any site-specific requirements and training for the FOD.

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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.

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.
2. As needed, 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 (e.g., Utilities and Institutional Facilities), MSGP stormwater monitoring activities are on a standing plan of the day. However, this must be requested each year.

3. Gather the required equipment (see Section 3.3) for the work to be done.
4. Using the Chrome or Firefox web browser (Chrome is preferable) on a mobile phone, tablet or notebook style computer, log into the MyECMS application (<http://ecms-prod.lanl.gov/MyECMS/>) **OR** the ECMS main application (<http://ecms-prod.lanl.gov/ecms/>) and confirm that the inspection list displayed matches your sites. If the inspection list does not match, contact EPC-CP Data Management personnel for clarification.
5. Click on an inspection to open the inspection form.
6. Click Save to save work in progress and final work. Do not click Submit in MyECMS until all entries have been checked for completeness and accuracy.
7. Always log out when you have finished work **OR** work is interrupted.

3.2 Performance Documents

Personnel performing work to this procedure will be familiar with the most current version of the following plan. Copies of the following are not required to be on the job site.

- EPC-CP MSGP Sampling and Analysis Plan (SAP) for the current monitoring year **OR** project specific monitoring plan

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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 (Cell phones are not allowed in Limited Areas or higher. 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 inspection or other form(s)
- LANL issued tablet, notebook or desktop computer with Chrome web browser and Blackberry work applications (see <https://int.lanl.gov/policy/documents/P217.pdf> for requirements for using portable electronic devices on Laboratory property)
- Necessary access and station keys
- 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 R2 Form 1, *MSGP Visual Assessment* in ECMS. The form can be filled out in the ECMS main application (<http://ecms-prod.lanl.gov/ecms/>) or the ECMS mobile application (<http://ecms-prod.lanl.gov/MyECMS/>). Work can be saved at any time by clicking the “Save” button at the top of the inspection form.

NOTE: Each item number listed in red below corresponds to a red numbered box on the screenshot examples.

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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:** In the inspection form header, click the calendar icon  next to Date of Response. Select the date the **inspection was conducted** and **not the date the form was filled out**.
- [3] Click the “Save” button at the top of the page to open the inspection form.
- [4] **ITEM 2:** 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.
- [5] **ITEM 3:** 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 is snowmelt,
THEN enter N/A.
 - [b] 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.
- [6] **ITEM 4:** 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 discharge is snowmelt,
THEN enter N/A.
 - [b] 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.

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- [7] **ITEM 5:** 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.
- [8] **ITEM 6:** 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 discharge is snowmelt,
THEN DO NOT record total amount of precipitation.
 - [b] 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.
- [9] **ITEM 7:** 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 8:** Observe the color of the discharge in the sample container. Document by describing the color.
- [2] **ITEM 9:** Observe any odors detected from the sample. Document by describing the odor (e.g., musty, sewage, sulfur, sour, solvents, petroleum/gas).
- [3] **ITEM 10:** 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.

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- [4] **ITEM 11:** Observe any floating solids in the discharge. Document by describing the floating solids.
- 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 12:** Observe any settled solids in the sample. Document by describing the settled solids (e.g., sediment, vegetation, fine, course).
- NOTE 3:** Settled solids may be an indicator of unstable ground cover combined with a high-intensity stormwater runoff event.
- [6] **ITEM 13:** Observe any suspended solids in the sample. Document by describing the suspended solids (e.g., vegetation, ash, sediment, fine, course).
- 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 14:** 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 15:** 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 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 16:** Check to see whether the discharge is free of any other indicators of stormwater pollution not described in any other task line above.
- [a] IF there are any potential sources of pollutants observed on site,

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THEN document the following and contact the EPC-CP MSGP Program Lead within 24 hours of identification:

- Potential sources,
 - Indicate if there are SCMs on site,
 - Evaluate whether the SCMs are working correctly or need maintenance,
 - Evaluate whether implementation of additional SCMs is needed to address the observed contaminant.
- [10] 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.
- [11] **ITEM 17:** Additional notes, observations, or site conditions not documented in a question field above can be documented in the “Additional information” field.

4.3 Completing the Visual Assessment Form

- [1] **ITEM 18:** Click the calendar icon  on the far right of the question. Select the date the **inspection was conducted** and **not the date the form was filled out**.
- [a] IF work needs to be performed over multiple days, THEN note the date and time the work began in the Additional information field (**ITEM 17**).
- [2] **ITEM 19:** Document the time the inspection was conducted in the text field.
- [3] **ITEM 20:** Click the magnifying glass icon  on the far right of the question and select the name of the inspector conducting the inspection from the list.
- [a] By signing the inspection form, field personnel certifies that the information submitted is “true, accurate, and complete.”
- [4] **ITEM 21:** Capture an electronic signature by drawing inside the dotted line box with a computer mouse on a desktop screen OR a finger on a tablet screen.
- [5] Ensure the form has been filled out completely.
- [6] After all fields have been completed, make sure you have clicked the “Save” button at the top of the page.
- [a] IF the inspection is filled out in the ECMS mobile application (MyECMS), THEN also click the Submit button at the top of the page.

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4.4 Completing the Certification Statement

The visual assessment form(s) 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, EPC-CP Group Leader, or EPC-CP Team Leader) or as identified as duly authorized signatories in the SWPPP. The manager is certifying the information submitted is “true, accurate, and complete” by signing the form(s).

The EPC-CP MSGP Program Lead or designee will send completed visual assessment form(s) to the DEPs at the end of each monitoring quarter that will contain a certification statement in a cover sheet. The duly authorized signatory may sign and date this certification statement rather than the certification line associated with each attached form. The cover sheet and associated completed form(s) 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 in EPC-CP-PIP-2101, *NPDES Multi-Sector General Permit Program Implementation Plan*. This will include “self-study” (required reading) for this procedure. Other participating LANL groups may require training documentation pursuant to local procedures. All training will be assigned and tracked using the LANL training management system, UTrain.

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.

6.0 RECORDS

The completed signed MSGP Visual Assessment 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. Records must be maintained in accordance with [P1020-1](#), *Laboratory Records Management*.

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 R2 Form 1, <i>MSGP Visual Assessment</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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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.

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 Directorate

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IWD	Integrated Work Document
LANL or Laboratory	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

P1020-1, Laboratory Records Management

P217, Controlled Portable Electronic Devices

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 R2 Form 1, *MSGP Visual Assessment*

Attachment 1: Screenshot Examples of EPC-CP-QP-2105 R2 Form 1,
MSGP Visual Assessment
(Page 1 of 6)

Section 4.1, Steps 2 and 3

Environment Audit Profile / Environment Audit Profile MSGP 2024 VA JanMar / Completion/History Sublist / Environmental Questionnaire Response Header MSGP 2024 VA JanMar

←

MSGP Record - Non-Employee Related Questionnaire ⓘ

Questionnaire

Documents

New

Save

Delete

Cancel

Lock Record

Unlock Record

Actions ▾

Layouts

MSGP Record - N

Details

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03/22/2024

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Date Of Response *

Questionnaire *

MSGP Visual Assessment (MSGP-VISUAL)

Source

QRHId

1087

In Progress

Source Id

MSGP 2024 VA JanMar

Location

Modified Date

03/21/2024 2:50 PM

Modified By

Locked By

Locked Unlocked

Cancelled

☐

Lock Date Time

Cancelled Date

mm/dd/yyyy

Signed copy returned to MSGP Program?

☐

MSGP Stormwater Visual Assessments	No: EPC-CP-QP-2105	Page 15 of 19
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**Attachment 1: Screenshot Examples of EPC-CP-QP-2105 R2 Form 1,
MSGP Visual Assessment (cont.)**

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Section 4.1, Steps 4-9

2

Document the monitoring period (e.g., Jan-Feb-Mar).

3

Document the Date/Time Discharge began (mm/dd/yy hh:mm).

4

Document the Date/Time sample collected (mm/dd/yy hh:mm).

5

Document the Date/Time sample visually assessed (mm/dd/yy hh:mm).

6

Document the nature of discharge (e.g., rain, snowmelt) and the TOTAL amount (in).

7

Sample collected in first 30 minutes of discharge? If No or unknown, provide a reason.

☐ Yes
☐ Unknown
☐ No

Comment

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**Attachment 1: Screenshot Examples of EPC-CP-QP-2105 R2 Form 1,
MSGP Visual Assessment (cont.)**

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Section 4.2, Steps 1-4

8

Color in sample? If Yes, describe.

☐ Yes
☐ No

Comment

9

Odor in sample? If Yes, describe (e.g. musty, sewage, sulfur, sour, solvent, petroleum/gas).

☐ Yes
☐ No

Comment

10

Diminished clarity of sample? If Yes, describe (e.g., slightly cloudy, cloudy, opaque).

☐ Yes
☐ No

Comment

11

Floating solids in sample? If Yes, describe if raw or waste material(s).

☐ Yes
☐ No

Comment

MSGP Stormwater Visual Assessments	No: EPC-CP-QP-2105	Page 17 of 19
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**Attachment 1: Screenshot Examples of EPC-CP-QP-2105 R2 Form 1,
MSGP Visual Assessment (cont.)**

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Section 4.2, Steps 4-6

12

Settled solids in sample? If Yes, describe (e.g., fine, course).

☐ Yes

☐ No

Comment

13

Suspended solids in sample? If Yes, describe (e.g., fine, course).

☐ Yes

☐ No

Comment

14

Foam in sample after gently shaking? If Yes, describe foam color and location (e.g., 'on the surface' or 'in the sample').

☐ Yes

☐ No

Comment

15

Oil sheen on sample? If Yes, describe color and thickness (e.g. flecks, globs).

☐ Yes

☐ No

Comment

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**Attachment 1: Screenshot Examples of EPC-CP-QP-2105 R2 Form 1,
MSGP Visual Assessment (cont.)**

(Page 5 of 6)

Section 4.2, Steps 9 and 11. Section 4.3, Steps 1-3

16 Other obvious indicators of stormwater pollution in sample? If Yes, describe.

☐ Yes

☐ No

Comment

17 Additional information:

18 Date inspection completed.

mm/dd/yyyy



19 Time Inspection Completed.

20 Select inspector name.



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**Attachment 1: Screenshot Examples of EPC-CP-QP-2105 R2 Form 1,
MSGP Visual Assessment (cont.)**

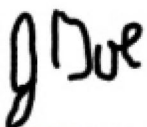
(Page 6 of 6)

Section 4.3, Step 4

21

Signature/Name

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



Clear

21.

Certification Statement


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

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

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

23. Signature and Date: (See signature on file)

**ATTACHMENT 19: EPC-CP-QP-2103, *INSPECTING STORMWATER RUNOFF SAMPLERS AND
RETRIEVING SAMPLES FOR THE MSGP***

EPC-CP-TP-2103	Revision: 1	
Effective Date: 03/16/2023	Next Review Date: 03/16/2026	

Environment, Safety, Health, and Quality Directorate
Environment Protection and Compliance – Compliance Programs Group
Technical Procedure

Inspecting ISCO Stormwater Runoff Samplers and Retrieving Samples

Hazard Grading:	<input type="checkbox"/> Low	<input checked="" type="checkbox"/> Moderate	<input type="checkbox"/> High/Complex
Usage Level:	<input checked="" type="checkbox"/> Reference	<input type="checkbox"/> UET	<input type="checkbox"/> Mixed: UET Sections: _____
Status:	<input type="checkbox"/> New	<input checked="" type="checkbox"/> Major Revision	<input type="checkbox"/> Minor Revision
	<input type="checkbox"/> Review w/No Changes	<input type="checkbox"/> Other: _____	
Safety Basis:	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> USQ	<input type="checkbox"/> USI Number: _____

Document Author/Subject Matter Expert:

Name:	Organization:	Signature:	Date:
Alethea Banar	EPC-CP	Signature on File	02-16-2023

Derivative Classifier: ☒ **Unclassified** or ☐ _____

Name:	Organization:	Signature:	Date:
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Steve Story, Group Leader	EPC-CP	Signature on File	03-16-2023

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REVISION HISTORY

Document Number and Revision <i>[Include revision number, beginning with Revision 0]</i>	Effective Date <i>[Document Control Coordinator inserts effective date]</i>	Description of Changes <i>[List specific changes made since the previous revision]</i>
ENV-RCRA-QP-047, Rev. 0	03/11	New Document.
ENV-RCRA-QP-047, Rev. 1	02/13	Annual Review and Revision
EPC-CP-QP-047, Rev. 2	09/06/2017	Review and revision. Updated document to new template and new group name. Clarified steps. Modified inspection form EPC-CP-Form-1010. 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.
EPC-CP-TP-2103 R1	03/16/2023	This document supersedes EPC-CP-TP-2103 R0. Modified pH measurement process, revised Form 1 and instructions, and updated references.

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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, and Quality (ESHQ) 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.

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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 open 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 4.4) 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.

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- 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), throughout the year 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.

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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.

- 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
- HACH SensION™ + Portable Meter User Manual.

3.3 Special Tools, Equipment, Parts, and Supplies

Ensure the following equipment is available.

- Safety glasses,
- Sturdy hiking boots or steel toe shoes (as needed) with soles that grip and other required facility specific Personal Protective Equipment,
- Nitrile gloves,
- Leather gloves,
- Cell phone. (See <https://int.lanl.gov/policy/documents/P217.pdf> for requirements for using portable electronic devices on Laboratory property),
NOTE: Mobile devices (e.g., LANL iPhones, LANL iPads, smart phones tablets, etc.,) cannot be carried into areas that are identified as LANL Secure Spaces.
- 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),

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- Access to accurate time measurement,
- Necessary access and station keys,
- Insulated hand tools,
- Charged spare battery(s),
- Battery voltage tester,
- Clean spare tubing (pump, suction, discharge types, sampler specific),
- Certified clean replacement sample bottles (glass and poly),
- Spare/replacement sampler parts (liquid level actuator, distributor arm),
- Shovel,
- Wooden stakes,
- Plastic wire “zip” ties,
- Coolers with ice or Blue Ice[®],
- Paper towels,
- Marker pen (permanent, waterproof),
- Ball point pen,
- 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 R1 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.

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- [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.
- [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 stormwater 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 stormwater discharge began from the precipitation report.
 - [b] IF the sampler tripped or collected stormwater, 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 stormwater is collected.
 - [a] Document if the water is taken by grab sample.

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- [b] Complete the Bottle Information (**ITEM 19**) in Section 4.1.7.
- [c] Follow the steps in Section 4.2 through 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.
 - [a] IF unable to review the temperature,
THEN check “No” and describe the condition (e.g., dead battery, electrical short).

4.1.3 Water Retrieval Information

- [1] **ITEM 7:** 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 8:** 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 9:** 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,
THEN describe the condition (e.g., cables chewed through by animal) and follow-up work needed (e.g., replace cables).

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- [3] **ITEM 10:** 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 (≥ 11.7 for non-floating charged batteries at ISCO 3700 samplers and ≥ 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 11:** 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 12:** 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 13:** Check and document the sample tubing has passed a suction test.
- [6] **ITEM 14:** Check and document the sampler is ON prior to departing the site.
- [7] **ITEM 15:** Check and document the liquid level actuator has been set to "Latch" prior to departing the site.
 - [a] IF the sampler tripped and requires reset of the sampling program,

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THEN reset the actuator by toggling the switch to “Reset” and back to “Latch.”

- [8] **ITEM 16:** 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 9 for each sampler.

4.1.6 Maintenance Information

- [1] **ITEM 17:** 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 or manufacture date.
- [3] **ITEM 18:** 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 19:** Document water collected by recording the following information for each bottle by position number in the carousel.
 - Date (MM/DD/YY or MM-DD-YY) and time the ISCO collected water,
 - Volume (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.

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- [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 analysis 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 analysis 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 analysis,
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 7**,
 - Return all water to the ground at the sampling location,
 - Skip to Step 11.

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CAUTION

ISCO Avalanche samplers are programmed to cool samples to 4°C. If water is collected and the refrigerator temperature reads higher than 6°C, **do not** retrieve samples that require ICE preservation. 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 7**.
- [9] Place retrieved sample bottles in a cooler with blue ice (or equivalent).
- [10] Return any excess stormwater collected that exceeds the amount required for analysis 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 18**.
- [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.



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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] Take a pH measurement.
- [3] Sign and date/time the SCPL and place it with the samples in the refrigerator.
- [4] Ensure custody seal is intact on each sample bottle.
- [5] Refer to EPC-CP-QP-2106, *Processing MSGP Stormwater Samples* for processing and submitting samples for shipping to the SMO.
- [6] 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 20:** 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.

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- [5] **ITEM 21:** 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 “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 22:** 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] Field personnel are certifying that the information submitted is “true, accurate, and complete” by electronically signing the 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 in EPC-CP-PIP-2101, NPDES Multi-Sector General Permit Program. This will include “self-study” (required reading) for this procedure. Other participating LANL groups may require training documentation pursuant to local procedures. All training will be assigned and tracked using the LANL training management system, UTrain.

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, that must be maintained in accordance with [P1020-1](#), *Laboratory Records Management* and ESH-AP-006, *Records Management Procedure*. Records generated by this document will be submitted to the Records Management designated point of contact or document manager for document management.

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As a result of implementing this procedure, below are the records generated that are identified by title and type.

Record Title	QA Record	Non-QA Record
EPC-CP-TP-2103 R1 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 or Laboratory	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
pH	Potential Hydrogen
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

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EPC-CP-PIP-2101, NPDES Multi-Sector General Permit Program Implementation Plan

ESH-AP-006, Records Management Plan

P1020-1, Laboratory Records Management

9.0 ATTACHMENTS

Attachment 1: Screenshot Examples of EPC-CP-TP-2103 R1 Form 1, ISCO Sampler Inspection and Sample Retrieval in MC Express

Attachment 2: EPC-CP-TP-2103 R1 Form 1, ISCO Sampler Inspection and Sample Retrieval Hard Copy Example

Attachment 3: Sample Retrieval Flow Diagram

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Attachment 1: ISCO Sampler Inspection and Sample Retrieval in MC Express
Screenshot Examples of EPC-CP-TP-2103 R1 Form 1,
(Page 1 of 6)

Work Order Summary Page (Section 3.1, Steps 8 and 9)

The screenshot displays the 'MC Express' interface for a work order summary. At the top, it shows 'WORK ORDER: MSGP-59941' and a 'Summary' tab. Below this, there is a red notification for '[MSGP05101] MSGP05101' with the text 'TA-54 Area G Issued'. A section titled 'EXAMPLE ISCO Sampler Installation' is visible. The main part of the screen is a list of items with icons and counts:

Item	Count
Tasks	25
Assignments	1
Labor	0
Parts	0
Other Costs	0
Attachments	1
Asset History	142

At the bottom, there is a 'More Work Order Detail...' link with a right arrow icon. The footer contains a 'Refresh' button and a 'List' button.

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Attachment 1: ISCO Sampler Inspection and Sample Retrieval in MC Express (cont.)
Screenshot Examples of EPC-CP-TP-2103 R1 Form 1,
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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

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Attachment 1: *ISCO Sampler Inspection and Sample Retrieval* in MC Express (cont.)
Screenshot Examples of EPC-CP-TP-2103 R1 Form 1,
(Page 3 of 6)

Work Order Task Page – Water Collection Information and Water Retrieval Information (Sections 4.1.2, Steps 3-5 and 4.1.3, Steps 1 and 2)

The screenshot displays the MC Express app interface for Work Order MSGP-59941. The top navigation bar is blue with a back arrow, the text 'MC Express', and a menu icon. Below the bar, the work order number 'MSGP-59941' is shown next to a 'Tasks' label and two icons (a flag and a circle with a dot). The main content area is divided into two sections: 'Water Collection information' and 'Water Retrieval information', both with black headers. Under 'Water Collection information', there are three task cards: 90 (Is there evidence of flow? If YES (but no water collected), describe and record date/time of discharge.), 100 (Is any water collected? If YES, complete Bottle Information section.), and 110 (If water was collected, record current refrigerator temperature (C). Asset: [210J01236] ISCO Avalanche Sampler). Under 'Water Retrieval information', there are two task cards: 130 (Was sample volume RETRIEVED? If Yes, record total volume retrieved.) and 140 (Was a Visual Assessment performed? If Yes, complete the MSGP Visual Assessment form (EPC-CP-QP-2105)). Each task card features a flag icon, a red box with a number, the task number, the description, and a download arrow icon.

Work Order Task Page – On Departure (Sections 4.1.4, Steps 2 and 3)

The screenshot displays the MC Express app interface for Work Order MSGP-59941, specifically the 'ON DEPARTURE' section. The top navigation bar is blue with a back arrow, the text 'MC Express', and a menu icon. Below the bar, the work order number 'MSGP-59941' is shown next to a 'Tasks' label and two icons (a flag and a circle with a dot). The main content area has a black header labeled 'ON DEPARTURE'. Below this header, there are two task cards: 160 (Are electrical connections secure?) and 170 (Record voltage of battery(ies) powering sampler. Voltage(s) >=11.7V?). Each task card features a flag icon, a red box with a number, the task number, the description, and a download arrow icon.

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Attachment 1: ISCO Sampler Inspection and Sample Retrieval in MC Express (cont.)
Screenshot Examples of EPC-CP-TP-2103 R1 Form 1,
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Work Order Task Page – Equipment Specific Tasks (Sections 4.1.5, Steps 1-8)

MC Express

WORK ORDER: MSGP-59941

Tasks

Equipment specific tasks

190

11

Does the sampler pass the ISCO diagnostics test?
Asset: [209H01285] ISCO 3700 Sampler

200

12

Is intake tubing free/clear of debris?
Asset: [209H01285] ISCO 3700 Sampler

210

13

Does sample tubing pass suction test?
Asset: [209H01285] ISCO 3700 Sampler

220

14

Is sampler on upon departure?
Asset: [209H01285] ISCO 3700 Sampler

230

15

Has the actuator switch been reset to "Latch"?
Asset: [209H01285] ISCO 3700 Sampler

240

16

Does ISCO display "Sampler Inhibited" on departure?
Asset: [209H01285] ISCO 3700 Sampler

Work Order Task Page – Maintenance Information (Sections 4.1.6, Steps 1-3)

MC Express

WORK ORDER: MSGP-59941

Tasks

Maintenance information

320

17

Is any maintenance not described above completed during inspection? If Yes, describe.

330

18

Is any follow-on maintenance not described above required? If Yes, describe.

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Attachment 1: ISCO Sampler Inspection and Sample Retrieval in MC Express (cont.)
Screenshot Examples of EPC-CP-TP-2103 R1 Form 1,
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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

350 Bottle #1? Asset: [209H01285] ISCO 3700 Sampler	↓
360 Bottle #2? Asset: [209H01285] ISCO 3700 Sampler	↓
370 Bottle #3? Asset: [209H01285] ISCO 3700 Sampler	↓
380 Bottle #4? Asset: [209H01285] ISCO 3700 Sampler	↓

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

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Attachment 1: ISCO Sampler Inspection and Sample Retrieval in MC Express (cont.)
Screenshot Examples of EPC-CP-TP-2103 R1 Form 1,
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Work Order Status Update Page (Section 4.4, Steps 4 and 5)

MC Express

WORK ORDER: MSGP-59941
Status Update

Issued / Completed

New Status **20**

Completed

Date

1/11/2023 8:00 AM

Percent Complete 100%

Labor Report Update

Select Comments to Add.....

Existing Labor Report **21**

Jane Admin

Work Order Status Update Page (Section 4.4, Step 7)

MC Express

WORK ORDER: MSGP-59941
Status Update

Signature **22**

(Remove)

Jane Admin

Cancel Save

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Attachment 2: ISCO Sampler Inspection and Sample Retrieval Hard Copy Example
EPC-CP-TP-2103 R1 Form 1
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Los Alamos National Laboratory

Work Order MSGP-59941

MSGP Monitoring Stations
Printed 1/11/2023 - 3:49 PM (Duplicate Copy)

Maintenance Details


Requested By: Admin, Jane on 11/1/2022 1:00:00 PM	Target: 1/31/2023	 MSGP Program  RG253  TA-09-0214 Metal Fabrication Shop
Procedure: MSGP ISCO Sampler Inspection and Sample Retrieval (EPC-CP-TP-2103 R1 Form 1)	Priority/Type: / Inspection Department: Weapons Facilities Operations	
Last PM: N/A	Contact: Admin, Jane	
Project: ISCO Sampler Inspections wk 3/28/22 (P-MSGP-5564)	Phone: 123-4567	
Reason: EXAMPLE MSGP ISCO Sampler Inspection and Sample Retrieval		

Tasks

#	Description	Meas.	No	N/A	Yes
ON ARRIVAL					
1 20	ISCO 3700 Sampler [209H01285] Is sampler ON and functioning properly upon arrival?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 30	ISCO 3700 Sampler [209H01285] 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 [209H01285] Is sampler time delta < 1 min (MST)? If No, record adjustment		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50	ISCO Avalanche Sampler [210J01236] Is sampler ON and functioning properly upon arrival?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
60	ISCO Avalanche Sampler [210J01236] 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 [210J01236] 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 [210J01236] If water was collected, record current refrigerator temperature (C).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water Retrieval information					
7 130	Was sample volume RETRIEVED? If Yes, record total volume retrieved.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 140	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					
9 160	Are electrical connections secure?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 170	Record voltage of battery(ies) powering sampler. Voltage(s) >=11.7V?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment specific tasks					
11 190	ISCO 3700 Sampler [209H01285] Does the sampler pass the ISCO diagnostics test?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 200	ISCO 3700 Sampler [209H01285] Is intake tubing free/clear of debris?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 210	ISCO 3700 Sampler [209H01285] Does sample tubing pass suction test?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 220	ISCO 3700 Sampler [209H01285] Is sampler on upon departure?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 230	ISCO 3700 Sampler [209H01285] Has the actuator switch been reset to "Latch"?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 240	ISCO 3700 Sampler [209H01285] Does ISCO display "Sampler Inhibited" on departure?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
250	ISCO Avalanche Sampler [210J01236] Does the sampler pass the ISCO diagnostics test?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
260	ISCO Avalanche Sampler [210J01236] Is intake tubing free/clear of debris?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

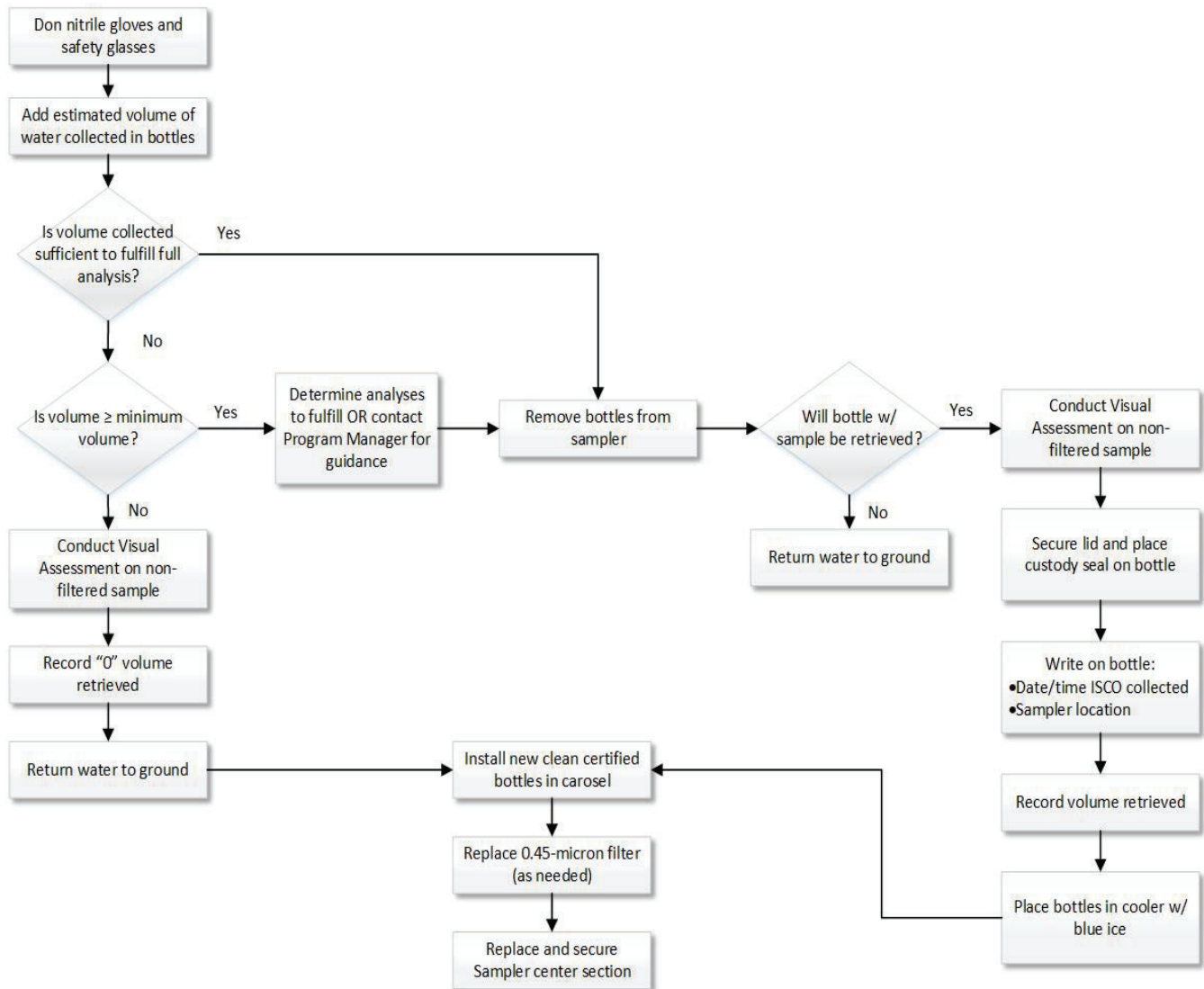
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Attachment 2: ISCO Sampler Inspection and Sample Retrieval Hard Copy Example (cont.)
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270	ISCO Avalanche Sampler [210J01236] Does sample tubing pass suction test?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
280	ISCO Avalanche Sampler [210J01236] Is sampler on upon departure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
290	ISCO Avalanche Sampler [210J01236] Has the actuator switch been reset to "Latch"?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
300	ISCO Avalanche Sampler [210J01236] Does Avalanche display "Program Disabled" on departure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintenance information				
17	320 Is any maintenance not described above completed during inspection? If Yes, describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	330 Is any follow-on maintenance not described above required? If Yes, describe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bottle information: IF bottle collected record bottle type (P or G), collection date & time, volume, and/or any ISCO messages				
19	350 ISCO 3700 Sampler [209H01285] Bottle #1?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	360 ISCO 3700 Sampler [209H01285] Bottle #2?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	370 ISCO 3700 Sampler [209H01285] Bottle #3?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	380 ISCO 3700 Sampler [209H01285] Bottle #4?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	390 ISCO 3700 Sampler [209H01285] Bottle #5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	400 ISCO 3700 Sampler [209H01285] Bottle #6?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	410 ISCO 3700 Sampler [209H01285] Bottle #7?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	420 ISCO 3700 Sampler [209H01285] Bottle #8?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	430 ISCO 3700 Sampler [209H01285] Bottle #9?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	440 ISCO 3700 Sampler [209H01285] Bottle #10?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	450 ISCO 3700 Sampler [209H01285] Bottle #11?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	460 ISCO 3700 Sampler [209H01285] Bottle #12?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	470 ISCO Avalanche Sampler [210J01236] Bottle #1?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	480 ISCO Avalanche Sampler [210J01236] Bottle #2?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	490 ISCO Avalanche Sampler [210J01236] Bottle #3?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	500 ISCO Avalanche Sampler [210J01236] Bottle #4?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Labor Report				
20	1/11/2023 Completed: 8:00:00 AM			
21	Report: Jane Admin			
22	<div style="display: flex; justify-content: space-between;"> <div>  Signature / Name </div> <div> 1/11/2023 Date </div> <div> Signature / Name </div> <div> Date </div> </div>			
I confirm the information as recorded is true, accurate and complete.				

Attachment 3: Sample Retrieval Flow Diagram

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ATTACHMENT 20: EPC-CP-QP-2106, *PROCESSING MSGP STORMWATER SAMPLES*

EPC-CP-QP-2106

Revision: 1



Effective Date: 11/28/2022

Next Review Date: 11/28/2025

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: _____
Safety Basis: ☒ N/A ☐ USQ ☐ USI Number: _____

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REVISION HISTORY

Document Number and Revision	Effective Date	Description of Changes
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.
EPC-CP-QP-2106 R1	11/28/2022	Supersedes EPC-CP-QP-2106 R0. Review and revise to update to the 2021 MSGP.

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1.0 INTRODUCTION

Triad National Security 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 discharge points 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-59-0001).

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.

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Use only sample containers that are documented to meet or exceed “US EPA Specification and Guidance for Contaminant-Free Sample Containers” (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 year and/or the beginning of each MSGP monitoring quarter from the Environmental Information Management (EIM) database. If the MSGP Data Manager is not available, forms will be obtained from the EPC-CP Sample Management Office (SMO). The SMO will generate Chain of Custody/Analysis Request form(s) as samples are submitted for shipment to an analytical laboratory.

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.

- EPC-CP MSGP SAP for the current monitoring year
- Peristaltic Pump User Manual (e.g., GeoTech®)
- pH meter and probe user manual (e.g., HACH sensION® + Portable Meter, HACH 50 50 T® probe)
- 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)

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- Water SCPL form
- EPC-CP MSGP SAP most recent revision for the current monitoring year OR project specific monitoring plan
- Sample containers (glass and poly bottles)
- Sample container lids
- pH meter and probe
- 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.

3.4 Equipment Calibration

Some analyses specified in the program or project SAP require recording field parameters such as pH. If a pH meter and probe are used, the equipment will be calibrated once before each use. Follow the instructions in the equipment manufacturer's manual to perform a three-point calibration with certified pH buffers 4.00, 7.00, and 10.00. Record the calibration results in a dedicated calibration notebook or on EPC-CP-QP-2106 R1 Form 1, *MSGP pH Probe Calibration Log* (see Attachment 1).

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.

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NOTE: Prior to performing any of the steps in the following sub-sections, ensure that you are wearing the proper clothing. Don nitrile gloves, safety glasses with side shields, and a lab coat. Confirm that the eyewash station is operational prior to processing samples.

4.1 Preparation for Processing Samples

Sample Retriever

- [1] Arrange sample collection bottles on the workbench in order by MSGP sampling location, ensuring to distinguish bottles collected via in-line filtration from non-filtered bottles, where applicable.

CAUTION

Process only one sample set (i.e., samples listed on one SCPL form or samples from one location) at a time to ensure stormwater from different locations is not co-mingled.

- [2] Cross-check the Location ID (e.g., MSGP00201) on the sample bottles with the LOCATION ID on the SCPL form (see example in Attachment 2).
- [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-TP-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 the 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 OR time sample was received at the EPC-CP Stormwater Laboratory (if applicable) or N/A;
 - [i] Indicate if a visual assessment was performed.

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- 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 the field.
- [5] IF the person who retrieved the sample is processing, THEN write N/A in the first RELINQUISHED BY and RECEIVED BY boxes.
- [6] IF the person who retrieved the sample is NOT processing, THEN
- [a] He/she will print and sign his/her name and the date/time samples are relinquished to the processor in the RELINQUISHED BY box.
- [b] The processor will print and sign his/her name and the date/time samples are received in the first RECEIVED BY box.

Sample Processor

- [7] Ensure the following information is correct for the analysis requested on the SCPL.
- [a] Sample container volume and type [e.g., 500 milliliter (mL) POLY].
- [b] Preservation type (e.g., ICE).
- [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] Match each sample container with the SCPL(s) on the workbench.
- 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.

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- [11] Indicate if each sample on the SCL was collected by writing Y for Yes or N for No in the COLLECTED Y/N box.
- [12] IF the SPECIAL INSTRUCTIONS box is not pre-populated, THEN write N/A in the box.
- [13] Document any other deviations from the planned sample processing on the SCPL (e.g., turbid sample required extra filtration step, used standard deionized water in lieu of ultrapure water for field blank) under PROCESSING COMMENTS or SAMPLING COMMENTS,
OR write N/A.
- [14] IF no further processing is required (e.g., chemical preservation), THEN apply a chain-of-custody seal/tape around the bottle and lid and sign and date the seal/tape.
- [15] The person processing the sample will print and sign his/her name and indicate the date/time samples were processed in the PROCESSED BY box.
- [16] Proceed to Section 4.5.

4.2 Filtering Samples

Filter samples if specified on the SCPL or if an in-line filter was not used during sample collection.

- [1] Select the appropriate-sized cartridge filter (e.g., 0.10µm or 0.45µm).
- [2] Set up the filter assembly.
 - [a] Attach an appropriate amount of silicone tubing to both ends of the cartridge filter.
 - [b] Place the filter upstream of the peristaltic pump to prevent over-pressurization.
 - [c] IF the sample contains a significant amount of sediment, THEN a pre-filter of the same size or larger micron capacity may be used.
- [3] For split filtered samples, follow these steps:
 - [a] Move the intake tube up and down through the sample during filtration.

NOTE 1: A sample collected solely for filtration can be filtered without being homogenized by gently shaking.
- [4] Replace the filter if any of the following conditions occur:
 - flow diminishes,
 - the pump begins to make a grinding sound, or
 - the tubing is forced off the filter by backpressure.

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- [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 (HNO₃), and sulfuric acid (H₂SO₄). Bases currently used in preservation include sodium hydroxide (NaOH). Review the appropriate Material Safety Data Sheet or Safety Data Sheet for specific guidelines prior to preserving samples. Specific acids/bases used depend on the required monitored parameters and are subject to change (e.g., biennial Clean Water Act §303(d)/305(b) Integrated Report updates).

WARNING

Preservatives are strong acids and bases that can cause severe burns. Take extreme care when using these acids and bases.

- [1] Review the analysis requested on the SCPL or SAP.
- [2] Select the pre-measured preservative type and size that matches the sample container size.
 - [a] IF you only have one size pre-measured preservative that does not match the sample container size, THEN you will use more than one. For example, if you have a 1-liter sample container and 500 mL pre-measured preservative vial, you will need to add two preservative vials to the sample container.

NOTE: Never "split" a larger volume pre-measured vial to preserve a smaller volume container (e.g., do not pipette from a 1-liter, pre-measured preservative vial to preserve a 500 mL sample). Error in measurement precision may lead to a risk of violating Department of Transportation shipping requirements.
- [3] Add the preservative (acid or base) to the sample.
 - [a] Securely affix the lid to the container.

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- [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, HNO₃).
 - [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 sealed bottles) or water from the TA-59-0001 deionized water system 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.

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- [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-59-0001) 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, HNO₃).
 - [b] Note any deviation from the planned sample container volume, type, or preservation on the SCPL.
- [2] Field duplicate samples must be samples collected from the same location, at the same time, and in the same manner:
 - Select two sample collection bottles next to each other in the automated sampler carousel.

OR

 - Select one sample collection bottle to split into separate sample containers
- [3] For split samples, follow these steps:
 - [a] Turn the sample collection bottle upside down multiple times to ensure sediment is loose from the bottom of the bottle.
 - [b] Pour sample into sample containers ensuring the sample remains homogenized throughout the transfer.
- [4] Return to Section 4.1, Step 11 to complete sample processing.

4.5 Handling Excess Stormwater

Minimize the amount of stormwater sample brought into the EPC-CP Stormwater Laboratory. Field personnel will attempt to retrieve only the volumes needed to fulfill the requested analyses from the current MSGP SAP or program/project specific SAP.

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Sample Processor

- [1] IF any excess stormwater sample exists after processing has been completed,
THEN
- Return to site of origin
- OR
- Select one sample collection Form.

4.6 Submit Samples for Shipping to Offsite Analytical Laboratory

Sample Processor

- [1] Ensure the sample containers are securely sealed and wiped dry.
- [2] Compare the information from the SCPL and lid of each container and apply the correct labels to the sample containers. Refer to Attachment 2 for an example of sample container labels.
- [3] Write the date and time the sample was collected on each label.
- [4] 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

- [5] Transport samples from the EPC-CP Stormwater Laboratory (TA-59-0001) to the SMO (TA-59-0001).
- [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 EPC-CP Stormwater Laboratory door is locked.
- [6] 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.

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- [7] [c] The SMO personnel accepts the sample(s) by signing and printing his/her name and recording the date/time in the RECEIVED BY box. Ensure the following steps are taken:
 - [a] SMO keeps the original SCPL(s) to accompany the samples.
 - [b] Keep a copy of the signed SCPL(s) for the MSGP Program.
- [8] Deliver the copy of the signed SCPL(s) to the MSGP Data Manager.

MSGP Data Manager

- [9] Process the sample information in the EIM system.
 - [a] Capture any documented deviations from planned conditions (as noted on the SCPLs).

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-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. All training must be assigned and tracked using the Laboratory training management system, UTrain.

6.0 RECORDS

EPC-CP is the Office of Record for this document, that must be maintained in accordance with [P1020-1](#), *Laboratory Records Management* and ESH-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 identified by title and type.

Record Title	QA Record	Non-QA Record
EPC-CP-QP-2106 R1 Form 1, <i>MSGP pH Probe Calibration Log</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
*Water Sample Collection and Processing Log/Field Chain of Custody	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Copy of logbook entry(s) (if a logbook 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.

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7.0 DEFINITIONS AND ACRONYMS

7.1 Definitions

See LANL [Definition of Terms](#).

7.2 Acronyms

See LANL [Acronym Master List](#).

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
µm	Micron
mL	Milliliter
MSGP	Multi-Sector General Permit
N/A	Not Applicable
NPDES	National Pollutant Discharge Elimination System
pH	Potential of Hydrogen
SAP	Sample Analysis Plan
SCPL	Water Sample Collection and Processing Log/Field Chain of Custody
SMO	Sample Management Office

8.0 REFERENCES

Code of Federal Regulation Title 40 Part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants*

ESH-AP-006, *Records Management Plan*

P1020-1, *Laboratory Records Management*

P217, *Controlled Portable Electronics Devices*

New Mexico Administrative Code Title 20, Chapter 6, Part 4, *Standards for Interstate and Intrastate Surface Waters*.

US EPA Publication 9240.05A, EPA/540/R-93/051, *Specification and Guidance for Contaminant-Free Sample Containers*, December 1992

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9.0 ATTACHMENTS

Attachment 1: EPC-CP-QP-2106 R1 Form 1, *MSGP pH Probe Calibration Log*

Attachment 2: Water Sample Collection and Processing Log/Field Chain of Custody Example

Attachment 3: Sample Container Labels Example

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Attachment 1: EPC-CP-QP-2106 R1 Form 1, MSGP pH Probe Calibration Log

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MSGP pH Probe Calibration Log

(Method: SM 4500-H+ B-2011 and Instrument User Manual)

Date: _____ Time: _____ pH Probe #: _____	
Location: _____ Analyst : _____	
Calibration Certified Buffers Used (units = S.U.)	pH Probe Stabilization Reading (S.U.)*
<input type="checkbox"/> 4.00 Expiration Date: _____	_____
<input type="checkbox"/> 7.00 Expiration Date: _____	_____
<input type="checkbox"/> 10.00 Expiration Date: _____	_____
*Reading must be within +/- 0.50 S.U. for valid calibration. If unachievable, explain:	

Date: _____ Time: _____ pH Probe #: _____	
Location: _____ Analyst : _____	
Calibration Certified Buffers Used (units = S.U.)	pH Probe Stabilization Reading (S.U.)*
<input type="checkbox"/> 4.00 Expiration Date: _____	_____
<input type="checkbox"/> 7.00 Expiration Date: _____	_____
<input type="checkbox"/> 10.00 Expiration Date: _____	_____
*Reading must be within +/- 0.50 S.U. for valid calibration. If unachievable, explain:	

Date: _____ Time: _____ pH Probe #: _____	
Location: _____ Analyst : _____	
Calibration Certified Buffers Used (units = S.U.)	pH Probe Stabilization Reading (S.U.)*
<input type="checkbox"/> 4.00 Expiration Date: _____	_____
<input type="checkbox"/> 7.00 Expiration Date: _____	_____
<input type="checkbox"/> 10.00 Expiration Date: _____	_____
*Reading must be within +/- 0.50 S.U. for valid calibration. If unachievable, explain:	

Processing MSGP Stormwater Samples	No: EPC-CP-QP-2106	Page 18 of 19
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Attachment 2: Water Sample Collection and Processing Log/Field Chain of Custody Example
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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
<u>N/A</u>	MSGP-TSS	<u>250</u> 500 ML POLY <u>7/1/18</u>	1	ICE	<u>X</u>	<u>N/A</u>	<u>N/A</u>

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) <u>Jane Doe</u> (Signature) <u>[Signature]</u>	Date/Time <u>07/03/18</u> <u>09:25</u>		
RELINQUISHED BY (Printed Name) <u>Jane Doe</u> (Signature) <u>[Signature]</u>	Date/Time <u>07/03/18</u> <u>10:05</u>	RECEIVED BY (Printed Name) <u>John Smith</u> (Signature) <u>[Signature]</u>	Date/Time <u>07/03/18</u> <u>10:05</u>
PROCESSED BY (Printed Name) <u>John Smith</u> (Signature) <u>[Signature]</u>	Date/Time <u>07/03/18</u> <u>13:00</u>		
RELINQUISHED BY (Printed Name) <u>John Smith</u> (Signature) <u>[Signature]</u>	Date/Time <u>07/04/18</u> <u>08:35</u>	RECEIVED BY (Printed Name) <u>See CoC #</u> (Signature) <u>2017-1326</u>	Date/Time
RELINQUISHED BY (Printed Name) <u>N/A</u> (Signature)	Date/Time	RECEIVED BY (Printed Name) <u>N/A</u> (Signature)	Date/Time

Report Date: 08/01/2018


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Attachment 3: Sample Container Labels Example
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Los Alamos National Laboratory	
Sample ID: MSGP-17-131786	
Container: 500 ML POLY	1 of 1
Preservative: HNO3 ICE	
Analysis: NPDES-AI-Total Recoverable	
Date/	Time:

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/	Time:

**ATTACHMENT 21: EPC-DO-QP-0930, *ENVIRONMENTAL REPORTING REQUIREMENTS FOR
RELEASES OR EVENTS***

EPC-CP-QP-0903	Revision: 1	
Effective Date: 03/09/2022	Next Review Date: 03/09/2025	

Environment, Safety, Health, Quality, Safeguards, and Security Directorate
Environmental Protection and Compliance – Compliance Programs Group
Quality Procedure

Environmental Reporting Requirements for Releases or Events

Hazard Grading:	<input checked="" type="checkbox"/> Low	<input type="checkbox"/> Moderate	<input type="checkbox"/> High/Complex
Usage Level:	<input checked="" type="checkbox"/> Reference	<input type="checkbox"/> UET	<input type="checkbox"/> Mixed: UET Sections: _____
Status:	<input type="checkbox"/> New	<input checked="" type="checkbox"/> Major Revision	<input type="checkbox"/> Minor Revision
	<input type="checkbox"/> Review w/No Changes	<input type="checkbox"/> Other: _____	
Safety Basis:	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> USQ	<input type="checkbox"/> USI Number: _____

Document Author/Subject Matter Expert:

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Steve Pearson	EPC-CP	Signature on File	02-28-2022

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REVISION HISTORY

Document Number and Revision <i>[Include revision number, beginning with Revision 0]</i>	Effective Date <i>[Document Control Coordinator inserts effective date]</i>	Description of Changes <i>[List specific changes made since the previous revision]</i>
0	02/09	New document
1	4/10	Revision and update
ENV-DO-QP-101 R2	6/12	Biennial Review/Revision, new template implemented.
EPC-DO-QP-101 R3	08/07/17	Revision and update. This document replaces ENV-DO-QP-101 R2. New document number reflects organizational name change.
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.
EPC-CP-QP-0903 R1	03/09/2022	This update includes clarification regarding 20.6.2.1203 NMAC reporting and conditions necessary for reporting of unplanned releases of potable water and steam condensate (Section 4.5.3). This revision supersedes EPC-CP-QP-0903 R0.

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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

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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.

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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.

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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

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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.

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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.

If the spill is ...	Then...
equal to or over 1 pound by weight of PCBs (TSCA) or greater than 270 gallons of untested mineral oil suspected of containing PCBs	Report to the National Response Center (1-800-242-8802) immediately (within 15 minutes of discovery). Additionally, contact EPA Region 6 (Office of Prevention, Pesticides and Toxic Substances Branch) through EPA's 24-hour spill response number 866-372-7745 as soon as possible after discovery, but no later than 24-hours after discovery.

4.5.3 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 NMAC](#) as directed in the LANL Liquid Discharge Reporting Guidance (Decision Tree), dated March 10, 2009, if:

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- 1) the release reaches a watercourse,
- 2) it adversely impacts a SWMU or AOC, or
- 3) a volume greater than 5,000 gallons is discharged (per location per day).

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/discoloration) to water in stream channels must also be reported to the National Response Center (NRC) immediately (within 15 minutes of discovery) pursuant to [40 CFR 110.6, 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.

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- 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.
- 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.

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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 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>).

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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.

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- [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.

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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.

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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 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.

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;

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- 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.

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- 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

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- 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.

Record Title	QA Record	Non-QA Record
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.

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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

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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

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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

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New Mexico Environment Department Groundwater Discharge Permit DP-1589

New Mexico Administrative Code (NMAC) 20.5.7

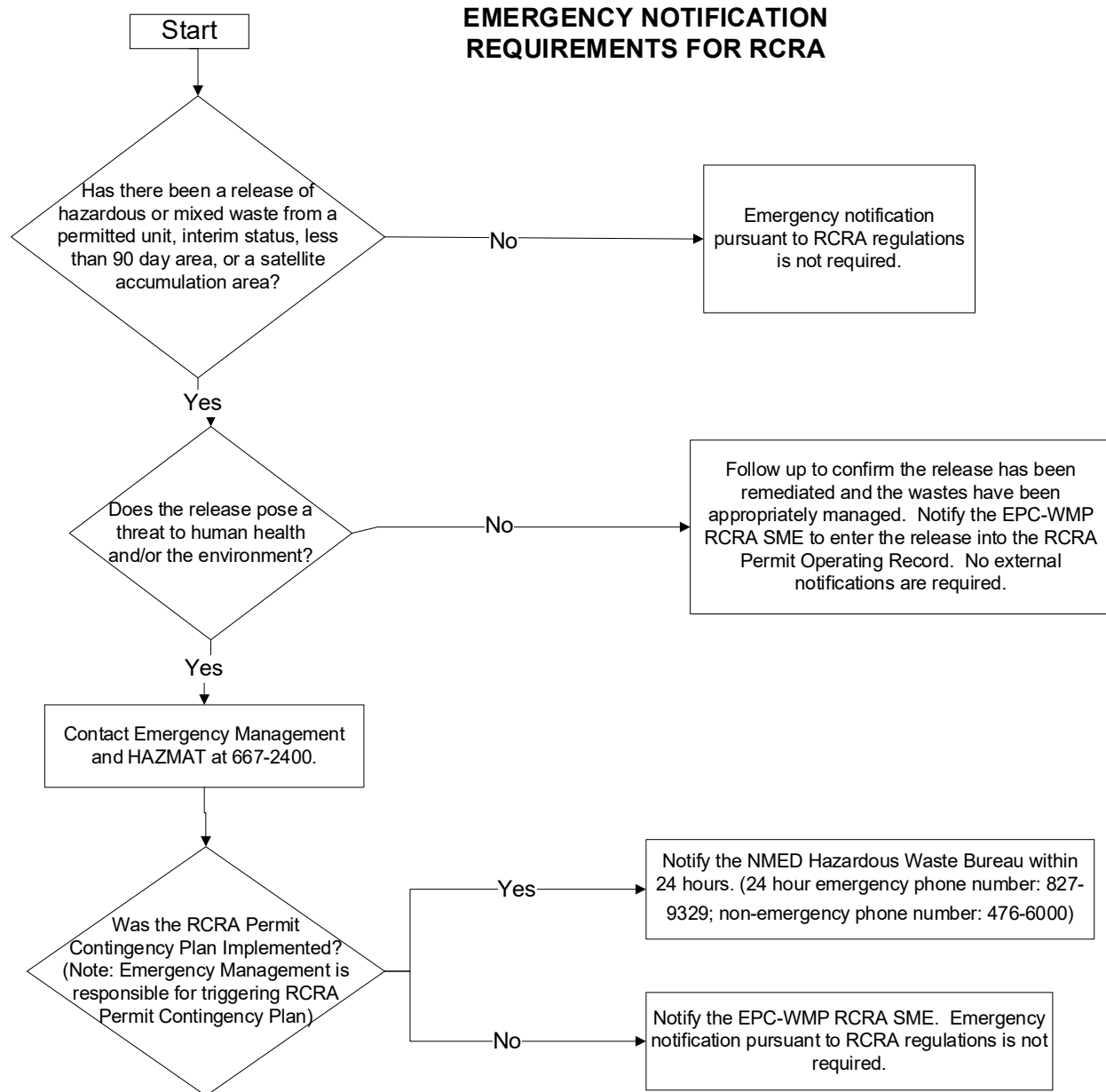
9.0 APPENDICES

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



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Attachment 2: Summary of Emergency Release or Event Reporting Requirements

NOTE: This is only a guide and does not cover all federal, state, or permit reporting requirements. Refer to the Code of Federal Regulations and the RCRA Permit for more details regarding these regulations.

STATUTE	REGULATIONS	INCIDENT	Immediate Reporting Requirements	Follow Up Reporting Requirements
Clean Water Act	40 CFR §110.6	Oil discharge (film/sheen/discoloration) to water surface or shoreline, or violation of water quality standards.	Immediately (within 15 minutes of discovery) notify the National Response Center.	Follow-up not required.
Clean Water Act	Part III of NPDES Permit No. NM0028355	Leak or unplanned release from an NPDES permitted outfall.	Notify the NPDES Outfall Permit Program Lead and EPC-CP Water Quality Team Leader upon discovery. The program lead or the EPC-CP Water Quality Team Leader will complete initial reporting requirements as required.	Required follow-up reporting will be completed by the NPDES Outfall Permit Program Lead and EPC-CP Water Quality Team Leader.
Clean Water Act (CWA)-NPDES Pesticide General Permit	40 CFR §122.28	Adverse incident 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)


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STATUTE	REGULATIONS	INCIDENT	Immediate Reporting Requirements	Follow Up Reporting Requirements
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.

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STATUTE	REGULATIONS	INCIDENT	Immediate Reporting Requirements	Follow Up Reporting Requirements
Resource Conservation and Recovery Act (RCRA)	40 CFR 262.34, 263.30, 264.51, 264.56 & .196, 265.51, .56 & .196, 270.14, & .30, 273.17, .37 & .54, 279.43 & .53, 280.50, .52, .53, .60, & .61	Release of hazardous or mixed waste from a permitted unit, interim status, less than 90 day area or a satellite accumulation area which the RCRA Permit Contingency Plan was triggered.	Notify NMED Hazardous Waste Bureau within 24 hours (24 hour emergency phone number: 827-9329; Non-emergency phone number: 476-6000) See Attachment 1 for additional details.	Submit written report to NMED HWB within 5 days.
Clean Air Act/ Radionuclide NESHAP	40 CFR 61, Subpart H	Airborne release of radioactive material in excess of an RQ.	Notify the EPA Region 6 Health Physicist (Office- (214) 665-8541; Mobile- (214) 755-1530; Home – (972) 937-1900) immediately after providing notification to the NRC.	Follow-up 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, *UNPLANNED RELEASES*

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Effective Date: 06/06/2023	Next Review Date: 06/06/2026	

Environment, Safety, Health, and Quality Directorate

Environment Protection and Compliance – Compliance Programs Group

Quality Procedure

Unplanned Releases

Hazard Grading: ☒ Low ☐ Moderate ☐ High/Complex
Usage Level: ☒ Reference ☐ UET ☐ Mixed: UET Sections: _____
Status: ☐ New ☒ Major Revision ☐ Minor Revision
☐ Review w/No Changes ☐ Other: _____
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Responsible Line Manager:	Organization:	Signature:	Date:
Steve Story, Group Leader	EPC-CP	Signature on File	06/06/2023

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To document a required read, Login to [UTrain](#), and go to the Advanced Search.*

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REVISION HISTORY

Document Number and Revision <i>[Include revision number, beginning with Revision 0]</i>	Effective Date <i>[Document Control Coordinator inserts effective date]</i>	Description of Changes <i>[List specific changes made since the previous revision]</i>
0	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.
EPC-CP-QP-1007, R1	06/06/2023	Renaming of procedure from <i>Spill Investigations</i> to <i>Unplanned Releases</i> , to distinguish from planned releases; text changes made to reflect current operating practices; update of contact list due to personnel changes.

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1.0 INTRODUCTION

All 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 unplanned releases and coordination of corrective actions are delegated to the Environmental Protection and Compliance Division's Compliance Programs Group (EPC-CP). An unplanned release, as used in this document, is defined as any unpermitted spilling, leaking, pumping, pouring, emitting, emptying, discharging, escaping, leaching, or unauthorized dumping of liquid or other material, including potable water, that may be a potential pollutant to water quality or that could result in adverse impact to the environment; excluding: 1) emissions from engine exhaust from any vehicle; 2) normal application of fertilizers, pesticides and deicing solutions.

NOTE

For PLANNED discharges of potable water or steam condensate contact EPC-CP Water Quality Permitting/Compliance SME for NMWCC-Planned Releases to ensure proper procedures are followed and appropriate documentation is completed.

1.1 Purpose

This EPC-CP procedure describes the steps for performing unplanned release investigations throughout LANL.

1.2 Scope

The scope of this procedure is limited to the performance of unplanned release responses by EPC-CP personnel and/or authorized subcontractors. Activities include unscheduled site visits to any area of the Laboratory upon notification or discovery of an unplanned release as support staff for the on-scene Incident Response Commander (IRC), Deployed Environmental Professional (DEP) staff, or Facility Operations Directorate (FOD) designated facility representative. Support activities include evaluation and documentation of the 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 unplanned release investigations.

1.4 Authority

The EPC-CP Group Leader is the issuing authority for this document.

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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 unplanned release 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 and area to be inspected.
- 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).

NOTE

SAFETY is a priority when responding to, and mitigating unplanned releases. If a safety issue exists that could potentially endanger personnel investigating the event or mitigating the release, contact the Emergency Operations Support Center (EOSC) at 667-2400 for support.

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 Operations – (EM-OPS) personnel or site personnel at all times.
- 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.

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- Some unplanned releases have 15-minute and 24-hour verbal notification requirements. Personnel using this procedure must be familiar with the reporting requirements of [EPC-CP-QP-0903, Environmental Reporting Requirements for Releases or Events](#).

Note

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. If the owner of the release is not associated with Triad, refer the caller to the EOSC at 667-2400. If the release is determined to belong to N3B, a courtesy notification shall be made to the Prime Contract, Interface, and Policy Office – Division Office (PCIP-DO) regarding location and details of the release.

3.0 PREREQUISITE ACTIONS

3.1 Planning and Coordination

The response to 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., WFO operational areas).
- Coordination with Access Control and/or Security for escort, keys, safety (e.g., explosives areas, burn grounds, between security fences), two-way radios.
- Security Clearance (i.e., TA-3-66, TA-55, TA-8, 9, 14, 15, 16, 39, 40, 49).

Site access for unplanned release response will require that the EPC-CP Investigator maintain a security clearance and multiple site-specific training requirements. It will also require that the Investigator coordinate with the EOSC, designated FOD representative, and/or Deployed Environmental Professional (DEP).

3.2 Performance Documents

The following documents are required to perform this procedure:

- EPC-CP-QP-1007 Form 1, Unplanned Release Report (Attachment 2).
- EPC-CP-QP-1007 Form 2, 7/15 Day Release Report (Attachment 3).
- EPC-CP-QP-0903, Environmental Reporting Requirements for Releases or Events.

3.3 Special Tools, Equipment, Parts, and Supplies

Ensure the following are available for responding to release notifications:

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- 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 – the EPC-CP spills team maintains the 664-7722 pager; notifications can be configured to send alerts to wireless pagers, government cell phones and e-mail.
- External dosimeter (as required by site or facility).
- EPC-CP-QP-1007 Form 1 - to record pertinent information about the release, i.e., time and date of release, location and source of release, type of material released, quantity of material released, impacted media, quantity of waste generated, 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 UNPLANNED RELEASE INVESTIGATIONS

4.1 Notification of an Unplanned Release

EPC-CP personnel that respond to, and conduct unplanned release investigations must: 1) ensure that the immediate mitigation of releases occurs (i.e., isolation of active leaks, deployment of absorbent controls or secondary containment, etc.); 2) provide timely notification to appropriate regulatory organizations in the event that the unplanned discharge meets reportable criteria as described in EPC-CP-QP-0903. EPC-CP provides 24-hr support and response to all notifications of an unplanned release; and 3) provide guidance to facility personnel on spill mitigation and cleanup.

4.1.1 Notification and Response to a 7-2400 (EOSC) PAGE

A **PAGE** from 7-2400 is a notification from the EOSC dispatcher of a release or event that may require EPC-CP presence on site. A **PAGE** from the EOSC will nearly always involve a response by HAZMAT personnel. The EPC-CP representative will need to perform the following steps when receiving this type of **PAGE**.

[1] Call 667-2400 and collect information of the event from the EOSC dispatcher. Note that this information should be regarded as preliminary, as more definitive information will be available when first responders arrive at the site and can fully assess the event. At a minimum, collect the following information from the EOSC dispatcher:

a) Verify if an EPC-CP on-site presence is requested. Some notifications (i.e., HAZMAT chemical characterizations or assessments) may not require an EPC-CP representative to be on site.

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b) Location of the release (i.e., Technical Area, building number, outside or inside of structure, mile post number, etc.). Based on location, determine what access requirements are applicable (i.e., Clearance Level, Site Specific training, escorting, etc.).

c) Type, volume and source of the release. Based upon the material spilled and location, determine the appropriate PPE for the site visit (i.e., steel toed boots, safety glasses, hard safety, safety vest, etc.).

d) Name and cell phone number of the IRC responding to the release.

[2] Travel to the release location and report to the IRC to receive a site-specific safety and security briefing.

[3] Assess and evaluate the nature and extent of the release. Inspect the site to ensure that the extent is adequately defined; identify any impacts to watercourses, SWMUs, and evidence of erosional impacts as a result of the release.

[4] Provide support and guidance to EM-OPS, HAZMAT and Facility personnel on release mitigation measures and requirements.

[5] Determine if samples will be required and coordinate with the WMC representative for preparation and submittal of a Request For Analysis (RFA). Note that for reportable releases where corrective actions involve significant removal of soil or surface materials, analytical confirmation samples may be required for submittal to regulators to justify administrative closure of the event.

[6] Provide the final inspection of the site to verify that corrective actions were adequate and are complete. Once the release has been mitigated, the IRC will release the site back to the controlling FOD.

4.1.2 Notification and Response to Non-EOSC PAGES and Phone Calls

Notifications may be received by PAGER or phone calls directly to the EPC-CP representative. Upon receiving this type of notification, the EPC-CP representative will need to perform the following steps:

[1] Call the phone number indicated on the PAGER or respond directly to the caller on the phone. Collect the following information:

- a) identity of caller.
- b) exact location of observed release.
- c) material released and estimated volume, flow rate, or approximate surface area of release.

[2] Based on the preliminary information received, assess whether on-site resources will be sufficient to mitigate the release. Notify the EOSC if the assessment determines that the release volume or impacted area appears to be beyond the capability of on-site personnel and resources, or, if the release involves an unknown chemical or hazardous material, if the release involves a large volume of petroleum product, if the release threatens to migrate offsite or impact a watercourse or

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storm drain, if vehicular traffic control is needed to safely remediate the release. If the EOSC determines an IRC is needed on site, then return to section 4.1.1 and proceed with the response and investigation as outlined.

[3] Proceed to the site and provide guidance to the FOD designee, waste management coordinator (WMC), and/or DEP regarding the containment and/or cleanup of the release. Examples of the types of guidance to provide include the following:

- a) Inspect the site to ensure that the extent of the unplanned release is adequately defined.
- b) Recommend corrective actions.
- c) Recommend how to stabilize the site for further remediation (i.e., BMPs, absorbent controls, secondary containment, etc.).
- d) Identify watercourse boundaries, SWMUs, PRSs near or at the release site.
- e) Provide the final inspection of the site to verify that the corrective actions were adequate and complete.

NOTE

The Spill Investigator may respond to the unplanned release and determine that the containment and remediation is beyond the capability of the designated FOD representative, DEP, and/or WMC to respond. The EOSC should be contacted if additional technical expertise or materials are needed to remediate the release.

NOTE

If the release is low volume of a known material, the delegated FOD representative, DEP or WMC may remediate the release without the EPC-CP spill representative being present. The designated FOD rep, DEP or WMC will complete the Unplanned Release Report (EPC-CP-QP-1007 Form 1) and submit a copy to the EPC-CP spill team lead for record keeping.

4.2 Notifications, Documentation, and Record Keeping

4.2.1 Notifications

4.2.1.1 Non-Reportable Releases

If the release is determined to be non-reportable, an e-mail notification shall be made by the EPC-CP investigator to the EPC-CP Water Quality Team Lead, EPC-CP Group Leader, and applicable internal stakeholders. Include the following information in the e-mail: date of release or discovery, location, quantity, and type of material, and corrective actions taken to mitigate and remediate the release.

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4.2.1.2 Reportable Releases

If the release is determined to be reportable, the EPC-CP spill team lead, or delegated EPC-CP on-call representative shall make the following notifications in the order described. A current contact list is provided in Attachment 1 of this procedure.

[1] E-mail notification to EPC-CP Group and Division Management, and internal stakeholders (i.e., EPC-CP Water Quality Team Lead and Permit SMEs, FOD and/or designated FOD representative). include all pertinent facts:

- a) date, time of release or discovery, location of release
- b) quantity and type of material
- c) status of corrective actions
- d) criteria that were met to classify the release as reportable

[2] Verbal notification to the DOE-NNSA representative explaining that a reportable release has occurred and 24-hr verbal notifications will be made to the appropriate regulatory agencies.

[3] 24-hr verbal notifications to the New Mexico Environment Department (NMED) Ground Water Quality Bureau (GWQB), Surface Water Quality Bureau (SWQB), and Hazardous Waste Bureau (HWB). If the release is reportable and has occurred after-hours on Friday or Saturday, the On-Call EPC-CP representative is responsible for making the required regulatory verbal notifications. If the release occurs on Sunday or weekdays the 24-hr verbal notifications will be made by the EPC-CP spill team lead.

CAUTION

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.

4.2.2 Documentation

4.2.2.1 Documentation for Non-Reportable Releases

If the release is non-reportable, then EPC-CP-QP-1007 Form 1 must be completed in its entirety and submitted to the EPC-CP spill team lead within five working days for record keeping.

4.2.2.2 Documentation for Reportable Releases

If the release is reportable, the EPC-CP spill team lead will document the release on EPC-CP-QP-1007 Form 2, 7/15 Day Release Report. The completed form will be reviewed and assigned an LA-UR document release number and submitted to the appropriate regulatory agencies and internal

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stakeholders within the required 7 and 15 day time frames. If corrective actions have been completed, administrative closure may be requested in the 7 or 15 day reports. Otherwise, closure will be requested via formal letter when corrective actions have been completed.

4.2.3 Recordkeeping

All unplanned release documentation, reportable and non-reportable, are electronically stored in an Access spills database located at ENV(\\dcstorage.lanl.gov:\CP\WQ\WQCC_COMP_PRPG\Spills). EPC-CP-QP-1007 Form 1 and Form 2, as well as all regulatory letter correspondence are linked to each unplanned release event and stored in the database. The database is maintained by the spill team leads who have access permission for data entry.

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 ESHQ-AP-006, RO ESHQ *Records Management Procedure*. 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., formal written communication to and from the New Mexico Environment Department)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Correspondence - E-mail Submittals of 7/15 Day Release Reports to NMED	<input checked="" type="checkbox"/>	<input type="checkbox"/>

7.0 DEFINITIONS AND ACRONYMS

7.1 Definitions

See LANL [Definition of Terms](#).

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7.2 Acronyms

See LANL [Acronym Master List](#).

8.0 REFERENCES

ESHQ-AP-006 R0, ESHQ Records Management Procedure

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: Contact 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*

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Attachment 1: Contact List

LANL Primary		
POC	Phone No.	E-Mail
Emergency Operations Support Center	(505) 667-2400	
EPC-CP Spills Pager	(505) 664-7722	
WM-WGS Response Pager	(505) 664-5864	
EPC-DO	(505) 667-5466	andiek@lanl.gov
EPC-CP Group Lead	(505) 412-5659	story@lanl.gov
EPC-CP WQ Team Lead	(505) 396-0866	sholcomb@lanl.gov

Regulatory		
New Mexico Environment Department		
24/7 - Non-Emergency Hotline	(866) 428-6535	
24/7 - Emergency Hotline	(505) 827-9329	
Ground Water Quality Bureau	(505) 827-2900	
Gerald Knutson	(505) 660-7189	Gerald.Knutson@env.nm.gov
Andrew Romero (DP 1132/any RLWTF releases)	(505) 660-8624	AndrewC.Romero@env.nm.gov
Surface Water Quality Bureau	(505) 827-0187	
Levi Dean	(505) 365-3337	Levi.Dean@env.nm.gov
Hazardous Waste Bureau	(505) 476-6000	
Stephen Connolly	(505) 470-8495	Stephen.connolly@env.nm.gov
US EPA Region 6	(800) 887-6063	
Nancy Williams	(214) 665-7179	Williams.nancy@epa.gov
24-hr National Response Center	(800) 424-8802	

Department of Energy - NNSA		
Karen Armijo	(505) 221-3664	Karen.armijo@nnsa.doe.gov
Robert Gallegos	(208) 569-0377	Robert.gallegos@nnsa.doe.gov

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Interface and Policy Office/Newport News Nuclear BWXT Los Alamos (N3B)		
Craig Douglass (Triad)	(505) 231-9478	craigd@lanl.gov
N3B Operations Center	(505) 551-2954	
Steve Maze (N3B) OPS Manager	(505) 309-1354	Steve.maze@em-la.doe.gov

Additional Resources
Environmental Contact List (SMEs) https://int.lanl.gov/org/ddops/aldehyq/environmental-waste-programs/_assets/docs/environmental-contacts.pdf
EPC-CP On-Call Schedule https://int.lanl.gov/org/ddops/aldehyq/environmental-waste-programs/_assets/docs/EPC-OnCall-Schedule.pdf
Attachment 1 - continued
WM-WGS On-Call Schedule https://int.lanl.gov/org/ddops/aldehyq/environmental-waste-programs/waste-management-programs/_assets/docs/emergency-on-call-WMC-calendar.pdf
Deployed Environmental Professional List https://int.lanl.gov/org/ddops/aldehyq/environmental-waste-programs/compliance-programs/env_pros.shtml
RQ Calculator https://rqcalculator.projectenhancement.com

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Additional LANL Support		
UI-OPS		
Randy Vigil (for potable and sanitary wastewater releases)	(505) 695-8900	rvigil@lanl.gov
David Trujillo (LOG vehicles; roadway releases)	(505) 412-9523	dtrujillo@lanl.gov
LOG-HERG (Roads and Grounds)		
Bernadette Lopez	(505) 695-3799	lopez_b@lanl.gov
IF-OPS		
Bill Gorman (building related releases)	(505) 695-8993	wgorman@lanl.gov

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Attachment 2: Unplanned Release Report, EPC-CP-QP-1007-Form 1

Los Alamos National Laboratory Environmental Compliance Program (EPC-CP) Unplanned Release Report		
Form Completed By:		Telephone:
Spill Owner Details (Specify):		Group:
<input type="checkbox"/> TRIAD, LLC	<input type="checkbox"/> Subcontractor: _____	<input type="checkbox"/> Other: _____
Date of Spill/Date Spill Discovered:		
Location:		
Material Spilled:		
<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: _____
Volume Spilled:	Waste Volume Generated:	
Source of Spill:	<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:		
Date Corrective Actions Completed:		
Did the spill enter or impact any of the following? (Check as many as apply)		<input type="checkbox"/> Floor Drain, if so please indicate affected facility _____ <input type="checkbox"/> Watercourse/drainage area, if so please indicate _____ <input type="checkbox"/> Solid Waste Management Unit/Area of Concern, if so please indicate _____ <input type="checkbox"/> None
<input type="checkbox"/> RCRA Treatment Storage Disposal Facility <input type="checkbox"/> RCRA Satellite Accumulation Area <input type="checkbox"/> RCRA <90 Day Storage Area <input type="checkbox"/> NPDES MSGP Facility		
Did the spill occur inside or outside a building? <input type="checkbox"/> Inside <input type="checkbox"/> Outside		
Did the spill occur on: (Check as many as apply)		
<input type="checkbox"/> Concrete	<input type="checkbox"/> 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: _____	
Samples Collected: If samples were collected, indicate analytical suite:		
<input type="checkbox"/> None	<input type="checkbox"/> Soil	
<input type="checkbox"/> Water	<input type="checkbox"/> Air	
	<input type="checkbox"/> Other: _____	
Certification		
I certify that I am knowledgeable about the information on this form. The information, to my knowledge, is true, accurate, and complete.		
Name of Certifying Official:	Organization:	Date:
Certification: _____		
Completed by EPC-CP Personnel		<input type="checkbox"/> Non-Reportable
Date Received:	Severity Index:	<input type="checkbox"/> Reportable
Causal Analysis:		

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Attachment 3: 7/15 Day Release Report, EPC-CP-QP-1007-Form 2

RELEASE / DISCHARGE NOTIFICATION

LOS ALAMOS NATIONAL LABORATORY LA-UR-

Calendar Year

Permit Number: NM0028355

NPDES or Operational Spill/Release ☐

ER Spill/Release ☐

Other Spill/Release ☐

Indicate with "X" in appropriate box.

Release ID Number:

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:

Date & Time

Discharge
Discovered:

Date & Time

Discharge
Stopped:

Date & Time

Cleanup
Started:

Date & Time

Cleanup
Completed:

Date & Time

Material(s) Released / Discharged:

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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:

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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
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**ATTACHMENT 23: EPC-CP-QP-2110, *MSGP STORMWATER POLLUTION PREVENTION PLAN
PREPARATION AND MAINTENANCE***

EPC-CP-QP-2110	Revision: 1	
Effective Date: 06/15/2023	Next Review Date: 06/15/2026	

Environment, Safety, Health, and Quality Directorate
Environment Protection and Compliance – Compliance Programs Group
Quality Procedure

MSGP Stormwater Pollution Prevention Plan Preparation and Maintenance

Hazard Grading: ☒ Low ☐ Moderate ☐ High/Complex

Usage Level: ☒ Reference ☐ UET ☐ Mixed: UET Sections: _____

Status: ☐ New ☒ Major Revision ☐ Minor Revision

☐ Review w/No Changes ☐ Other: _____

Safety Basis: ☒ N/A ☐ USQ ☐ USI Number: _____

Document Author/Subject Matter Expert:

Name:	Organization:	Signature:	Date:
Holly L. Wheeler	EPC-CP	Signature on File	05-26-2023

Derivative Classifier: ☒ **Unclassified** or ☐ _____

Name:	Organization:	Signature:	Date:
Steven E. Wolfel	EPC-CP	Signature on File	05-30-2023

Approval Signatures:

EPC-CP- Reviewer:	Organization:	Signature:	Date:
Alethea Banar	EPC-CP	Signature on File	05-30-2023
EPC-CP Reviewer:	Organization:	Signature:	Date:
Terrill W. Lemke, Team Leader	EPC-CP	Signature on File	06-14-2023
EPC-CP RLM:	Organization:	Signature:	Date:
Steve Story, Group Leader	EPC-CP	Signature on File	06-15-2023

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.

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REVISION HISTORY

Document Number and Revision	Effective Date	Description of Changes
EPC-CP-QP-2110, Rev. 0	01/07/2020	New document
EPC-CP-QP-2110 R1	06/15/2023	This document supersedes EPC-CP-QP- 2110 R0. Reviewed and revised to the new 2021 MSGP language and requirements. Updated Sections 1.0, 1.1, 1.2, 3.0, 3.2, 4.1, 4.2, 5.0, 6.0, 7.0, 8.1, 8.2, 9.0, Attachment 1 and Attachment 2. Permit section references and language updated in Sections 1.1, 4.2, 5.0, 8.1, 8.2, Attachment 1, and Attachment 2. Updated checklist to new MSGP sections and language.

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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 at 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 documented in a SWPPP. The SWPPP is intended to document the selection, design, and installation of stormwater control measures (SCM) to meet permit effluent limits. Additional documentation required by the Permit is kept with the SWPPP (including inspection reports, maintenance activities, monitoring results, and conditions requiring corrective action and AIM responses) and is intended to document the implementation of permit requirements.

1.2 Scope

This procedure contains information and specific steps for preparing and revising a SWPPP and identifying and documenting conditions to meet Permit requirements. Part 6 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. Additional documentation required to be kept with the SWPPP can be found in Part 6.5 of the Permit.

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 6 of the Permit contains the specific requirements for developing, maintaining, and revising a SWPPP. At a minimum, the SWPPP will contain the following elements:

- Stormwater pollution prevention team (Stormwater PPT);
- Site description (including a site map);
- Summary of potential pollutant sources;

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- Description of stormwater control measures;
- Schedules and procedures;
- Documentation to support eligibility considerations under other federal laws; and
- Signature requirements.

Where the SWPPP refers to procedures in other facility documents, such as a Spill Prevention, Control and Countermeasure Plan or an Environmental Management System, copies of the relevant portions of those documents must be kept with the SWPPP.

The template provided in Attachment 1, EPC-CP-QP-2110 R1 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.

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- [3] Text highlighted in yellow indicate areas to be replaced with facility specific information.
 - [a] IF text is part of an instruction (e.g., **Insert site description text here.**) THEN delete the entire line and replace with the appropriate information.
 - [b] IF text is embedded as part of the line, THEN replace just the yellow highlighted text with appropriate information (e.g., delete **Sector XX- (Insert Sector Title)** and replace with *Sector P – Land Transportation & Warehousing*).
- [4] Delete attachments that are not applicable to the active facility specific SWPPP.
- [5] Attach other documentation (e.g., Spill Prevention, Control and Countermeasure Plan, Environmental Management System, copies of relevant portions of documents) as necessary.
- [6] Send the draft SWPPP to the EPC-CP MSGP Program Lead and request a review.

NOTE 1: The EPC-CP MSGP Program Lead may delegate the review to personnel in the Stormwater 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. Refer to the 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, Subpart 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 or the author can print and scan an electronic signature as a pdf to insert it into the document. The RASSTI system adds a cover page to the document containing the Los Alamos Unlimited Release or LA-UR number, which obviates all electronic signatures due to the document change.

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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 Electronic Public Reading Room internet web page. Refer to Part 6.4 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] Specify that the document falls under the Environmental Designated Unclassified Subject Area, or DUSA, system.

NOTE 1: To take advantage of the DUSA, a DUSA trained author is required to submit the SWPPP. If this does not occur, the document will undergo **full classification review**, which takes a week. In this situation, a derivative classifier will need to be identified in the system.
 - [c] Identify a line manager for an approval signature.
 - [d] 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 6.5 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).

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- A copy of the Notice of Intent to Discharge (NOI) submitted to EPA and correspondence exchanged between Triad, LLC and EPA specific to coverage under the permit;
- **NOTE:** There may be several modifications to the NOI during a permit term. Ensure you coordinate with the MSGP Program Lead to confirm all modifications are included in the SWPPP.
- A copy of the acknowledgement received from the EPA assigning the NPDES permit identification number;
- A copy of the permit;
- Documentation of maintenance and repairs of stormwater control measures (refer to Part 2.1.2.3 of the Permit);
- All inspection reports, including Routine Facility Inspection Reports (refer to Part 3.1.6 of the Permit) and Quarterly Visual Assessments (refer to Part 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 and 4.1 of the Permit);
- Corrective action documentation (refer to Part 5.1 of the Permit);
- Documentation of any benchmark threshold exceedances, the AIM level triggered, and associated response (refer to Part 5.2 of the Permit);
- Rationale that SWPPP/SCM changes are unnecessary.
- Documentation required to meet any AIM exception (refer to Part 5.2.6 of the Permit);
- 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 with respect to the requirements to conduct routine facility inspections (refer to Part 3.1.5 of the Permit), quarterly visual assessments (refer to Part 3.2.4.4 of the Permit), benchmark monitoring (refer to Part 4.2.2.5 of the Permit), and/or impaired waters monitoring (refer to Part 4.2.5.2 of the Permit).

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 5.1.1 and 5.1.2 of the Permit).

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The SWPPP must also be modified based on corrective actions and deadlines required under Part 5 of the Permit and documented in accordance with Part 5.3 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 stormwater control measures.
 - Sources of pollution.
 - Spill and leak procedures.
 - Non-stormwater discharges (as applicable).
- [2] IF any of the following conditions occur or are detected during an inspection, monitoring or other means,
THEN the Stormwater PPT must **immediately** review the SWPPP as specified above.
 - Unauthorized release or discharge (e.g., spill, leak, discharge of non-stormwater not authorized by the permit);
 - A discharge violates a numeric effluent limit (refer to Table 2-1 and Part 8.D.6 of the Permit);
 - Stormwater control measures are not stringent enough for discharge to be controlled as necessary such that the receiving water of the United States will 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, SCM removal or installation, outfall removal or creating a new outfall, changing drainage pathways or the path of stormwater flow.

 - If quarterly benchmark monitoring results indicate an AIM triggering event has occurred.

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- [3] The Stormwater PPT must determine the modification(s) to be made to implement or maintain stormwater 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, Subpart 11 of the Permit.

6.0 TRAINING

The following personnel require training before implementing this procedure.

- 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. Other participating LANL groups may require training documentation pursuant to local procedures. All training will be assigned and tracked using the LANL training management system, UTrain.

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. Records must be maintained in accordance with P1020-1, *Laboratory Records Management*.

Below, are records generated as a result of implementing this procedure and 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

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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 stormwater control or other method (including narrative 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](#).

AIM	Additional Implementation Measures
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
RASSTI	Review and Approval System for Scientific and Technical Information
SCM	Stormwater Control Measure
SWPPP	Stormwater Pollution Prevention Plan
PDF	Portable Document Format
PPT	Pollution Prevention Team

9.0 REFERENCES

United States Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit for Stormwater Discharges Associated With Industrial Activity (MSGP), March 1, 2021

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Federal Register, National Pollutant Discharge Elimination System (NPDES) 2021 Issuance of the Multi-Sector General Permit for Stormwater Discharges Associated With Industrial Activity. Federal Register: February 19, 2021, Volume 86, Number 32

Clean Water Act, Title 33 U.S.C. 1251

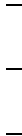
P1020-1, Laboratory Records Management

EPC-CP-PIP-2101, NPDES Multi-Sector General Permit Program

10.0 ATTACHMENTS

Attachment 1: EPC-CP-QP-2110 R1 Form 1, MSGP SWPPP Template Example

Attachment 2: MSGP SWPPP Review Guidance Checklist Example



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**

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Attachment 1: EPC-CP-QP-2110 R1 Form 1, *MSGP SWPPP Template Example* (cont.)
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Insert Facility Name
 MSGP Stormwater Pollution Prevention Plan
 Document Reference Number
 Revision X, Date

Page intentionally blank

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Attachment 1: EPC-CP-QP-2110 R1 Form 1, MSGP SWPPP Template Example (cont.)
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Document Reference Number
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Attachment 1: EPC-CP-QP-2110 R1 Form 1, MSGP SWPPP Template Example (cont.)

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STORMWATER POLLUTION PREVENTION PLAN

PREFACE

This Stormwater Pollution Prevention Plan (SWPPP) was developed in accordance with the provisions of the Clean Water Act (33 U.S.C. §§1251 et seq., as amended), and the *United States Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP)* (U.S. EPA, January 2021) 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 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 **(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 February 28, 2026.

1.0 FACILITY DESCRIPTION

1.1 Facility Information

Name of Facility: (Insert facility name e.g., TA-03-0038 Metal Fabrication Shops)		
Street: P.O. Box 1663		
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 XXXX, Sector X, Subsector XX		
Estimated area of industrial activity at site exposed to stormwater: XX acres		
Discharge Information		
Name(s) of surface water(s)/segment that receives stormwater from your facility: Sandia Canyon (Sigma Canyon to NPDES outfall 001), Mortandad Canyon (within LANL); Cañon de Valle (below LANL Gage E256); or Arroyo de la Delphe (Above Kielling Springs to headwaters). 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 2021 MSGP, Appendix A)? <input checked="" type="checkbox"/> Yes No		
Pollutants causing the impairment: (Insert pollutants: list can be found in the Triad Notice of Intent (NOI))		

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Pollutants causing the impairment (see above) that may be present in industrial stormwater discharges from this Facility: Are any of your stormwater discharges subject to effluent limitation guidelines (ELGs) (2021 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
Deployed Environmental Professional (DEP): Name or Title, Organization	Responsible for the support and oversight of all environmental programs and issues for the yards, buildings and facilities listed within this Plan. The DEP is responsible for training, recordkeeping, and SWPPP revision. The DEP ensures documentation of inspections and other required MSGP records relative to the SWPPP are managed in accordance with the Permit and established document control procedures and that the SWPPP is kept current. The DEP provides technical and regulatory support and regularly communicates with facility and operations personnel, as well as 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 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. The DEP is also responsible for immediate and timely communication to appropriate facility and operations management personnel to ensure that they are aware of non-compliant issues within the MSGP boundary and that they understand immediate action is required to correct the non-compliance.
Facility Operations Division (FOD) Manager: Name or 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 the FOD propose new processes, operations, features, or a new site that may be subject to the MSGP. This Manager is key to ensuring adequate communication and coordination of issues regarding implementation of the MSGP and this Plan.

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EPC Core: Name or Title, Organization	The MSGP Program Lead is responsible for managing and administering the MSGP Program for all industrial facilities operated by Triad within Los Alamos National Laboratory. The MSGP Program Lead advises and provides guidance to facility or operations personnel on NPDES MSGP regulations/requirements. The Program Lead also acts as the institutional point of contact for all interactions with the regulatory authority (EPA) and supervises personnel implementing stormwater monitoring requirements for the facility.
Operations Manager(s): Name or 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), main structures, activities, outfalls, and substantially identical discharge points.

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 2021 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.
- **Direction of stormwater flow and site drainage.** Direction of flow is indicated with arrows.
- **Locations of stormwater control measures (SCMs).**

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- **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

Spills and leaks that occurred after March 1, 2021, the issuance date of the 2021 MSGP, are summarized in Attachment 24. Spills and leaks that occurred prior to March 1, 2021, are documented in previous SWPPP revisions.

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Insert information on spill and leak history at the facility, if any. Text may be in table format as shown below or include this table in Attachment 24 (as stated in the text above).

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-2109, *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

All Triad sampling data collected at this facility during the previous permit term is contained in prior SWPPP revisions.

The following table provides monitoring data at the facility for the past year.

Permitted Facility: (insert facility name)

Calendar Year (CY) XXXX

Contact MSGP Program Lead to obtain this information formatted for insertion.

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NOTE: This information will be updated every year during the annual SWPPP update, to include the 3 most current years of monitoring data. If the current Permit cycle is under 3 years, include the available years of monitoring data.

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 2021 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.

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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. 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 SCMs to be installed."

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-2109, *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-0930, *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

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

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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.

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 2021 MSGP and if benchmark monitoring is or is not required.

If the permit does identify sector-specific requirements for the facility as listed in Part 8, 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 control 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 2021 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.

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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 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 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 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.).

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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 UTrain database. Informal briefings, such as those included in group safety meetings are not typically recorded in UTrain. In this case, sign-in sheets are used to document attendance. Under the current Management and Operation contract, Triad must manage this information as official use only (OUO), which requires special handling. All training records are managed in accordance with P204-1, *Controlled Unclassified Information*. Information on employees receiving training is available upon request.

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-2108, *MSGP Routine Facility Inspections* (Attachment 16).

Visual assessments are conducted in accordance with EPC-CP-QP-2105, *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 2021 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 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 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;

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- Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site;
- Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas; and
- Control measures needing 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, and October-December) 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.

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.);
- 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 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 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

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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 for this site is comprised of Impaired Waters and [insert quarterly benchmark, indicator parameter (see Table 4-1 of the 2021 MSGP), and/or Effluent Limitation Guideline (for example for the Asphalt Batch Plant)] monitoring for industrial activity identified in Table 4-1 of the 2021 MSGP. 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 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 discharge point 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 discharge points. If the facility has multiple maps, reference them all.

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 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 4.2.5 of the 2021 MSGP);

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- 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
- 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-QP-2103, *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 9.6.2.2 of the 2021 MSGP.

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Required Monitoring for CY XXXX

Outfalls: (insert outfall numbers)

Contact MSGP Program Lead to obtain this information formatted for insertion.

Monitoring Requirement	Industrial Sector	Assessment Unit	Analyte	Filtered/Unfiltered	Regulatory Standard	Units	Regulatory Standard Type	Regulatory Standard Reference
Impaired Waters	-	NM-128.A_01	Adjusted Gross Alpha	UF	15	pCi/L	NM 2010 Livestock Watering	20.6.4.900 NMAC Subpart J
Annual	-	-	PFOA+PFOS	-	0.07	ug/L	-	-
Indicator Parameters	P	COD, TSS, and pH						
Quarterly Benchmark	P	No Benchmark Monitoring Required						

NM=New Mexico
UF=Unfiltered
pCi=Picocurie
L=Liter
NMAC=New Mexico Administrative Code
PFOA=Perfluorooctanoic Acid
PFOS=Perfluorooctane Sulfonate
COD=Chemical Oxygen Demand
TSS=Total Suspended Solids

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5.0 DOCUMENTATION FOR ELIGIBILITY CONSIDERATIONS UNDER OTHER FEDERAL LAWS

5.1 Endangered Species

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

Part 2.3 of the 2021 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-22-20556) was last updated in January 2022 (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 April 2021, August 2015 and December 2008, the Cultural Resources Team (using GPS spatial data as well as conducting visual inspections), reviewed the active Laboratory industrial sites (see list below) and their associated outfalls and monitoring stations subject to the 2021 Multi-Sector General Permit (Permit #NMR050013 MSGP 2021) 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-9-0214 Metals Fabrication Shop
- TA-3-0038 Metals Fabrication Shop
- TA-16 Stockpile Area
- TA-60 Asphalt Batch Plant
- TA-60-0001 Heavy Equipment Yard
- TA-60 Material Recycle Facility
- TA-60 Roads and Grounds
- TA-60-0002 Warehouse

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; Level, 1, 2, or 3 additional implementation measures (AIM)] is reviewed and revised (as appropriate).

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- 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;
- SCMs 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; 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 4.2); 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, called “additional implementation measures” or “AIM.” 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

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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.

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.

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 SCMs 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 Corrective Action Reporting (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.

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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 SCMs 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

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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 Stormwater 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 (also known as Best Management Practices or 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-2109, *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
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
OUO	Official Use Only

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PAH	Polyaromatic Hydrocarbons
PPT	Pollution Prevention Team
SCM	Stormwater Control Measures
SIDP	Substantially Identical Discharge Point
SWPPP	Stormwater Pollution Prevention Plan
URL	Uniform Resource Locator

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8.0 SWPPP CERTIFICATION

STORMWATER POLLUTION PREVENTION PLAN
 (Insert Facility Name)
 Los Alamos National Laboratory

CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information **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.

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

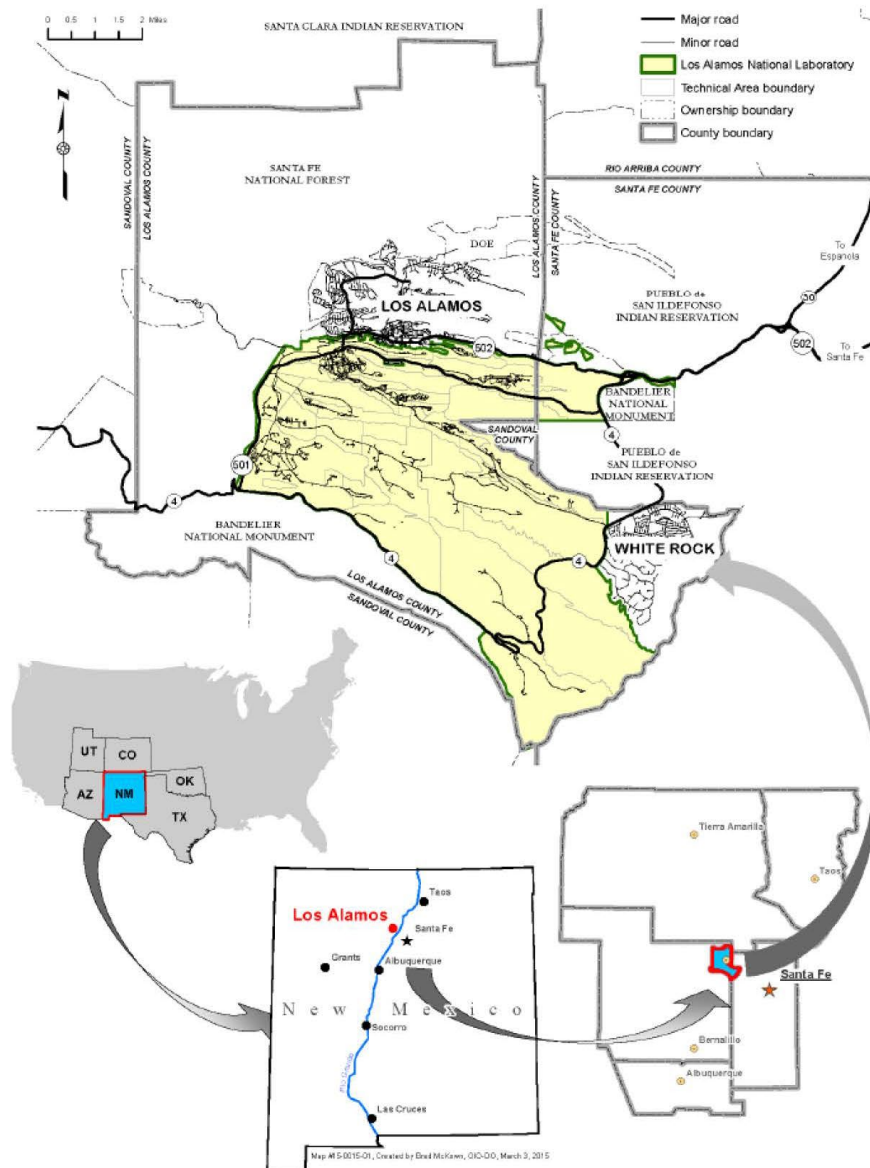
Signature _____ Date _____
 (Insert Printed Name)
 (Insert Title)

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FIGURE A: GENERAL LOCATION MAP



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FIGURE B: MAP(S)

Label the figures as Figure B-1, Figure B-2, etc.

Insert maps in the following order:

- Facility specific site map(s),
- Receiving waters maps, and
- Threatened Endangered Species Map.

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ATTACHMENT 1: NOTICE OF INTENT, SUPPORTING DOCUMENTATION, AND UPDATES

Insert the appropriate attachment and supporting documentation. **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.

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ATTACHMENT 2: SWPPP AMENDMENTS

Insert text documenting all changes or updates made to the SWPPP. Text may be in table format as shown below.

Date	Plan Section	Reason for Amendment	Amendment
		(e.g., 2021 MSGP was published on March 1, 2021, requiring a SWPPP update.)	(e.g., Plan revised to reflect new permit requirements.)

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ATTACHMENT 3: CERTIFICATION OF NO UNAUTHORIZED STORMWATER DISCHARGES

Insert the appropriate attachment.

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ATTACHMENT 4: DULY AUTHORIZED SIGNATORY MEMORANDUM

Insert the appropriate attachment.

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ATTACHMENT 5: DISCHARGE MONITORING REPORTS

Insert the discharge monitoring reports for the current permit term.

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ATTACHMENT 6: ANNUAL REPORTS

Insert the annual reports for the current permit term. The MSGP Program Lead provides these.

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Attachment 1: EPC-CP-QP-2110 R1 Form 1, *MSGP SWPPP Template Example* (cont.)
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ATTACHMENT 7: ROUTINE FACILITY INSPECTIONS

Insert completed Routine Facility Inspection forms for the current permit term.

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Attachment 1: EPC-CP-QP-2110 R1 Form 1, *MSGP SWPPP Template Example* (cont.)
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ATTACHMENT 8: QUARTERLY VISUAL ASSESSMENTS

Insert completed Quarterly Visual Assessment forms for the current permit term. EPC-CP provides these by e-mail as they are certified.

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Attachment 1: EPC-CP-QP-2110 R1 Form 1, *MSGP SWPPP Template Example* (cont.)
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ATTACHMENT 9: CORRECTIVE ACTION DOCUMENTATION AND CERTIFICATION

Contact the EPC-CP MSGP Program Lead for an excel spreadsheet of all corrective actions and a certification statement for signature.

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Attachment 1: EPC-CP-QP-2110 R1 Form 1, *MSGP SWPPP Template Example* (cont.)
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ATTACHMENT 11: TRAINING DOCUMENTATION

Information on employees receiving training is available upon request. Insert briefing or presentation.

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Attachment 1: EPC-CP-QP-2110 R1 Form 1, *MSGP SWPPP Template Example* (cont.)
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ATTACHMENT 12: MSGP (OR ACTIVE URL)

Either insert a copy of the most current permit, or insert the URL address (see example below).

A copy of the 2021 MSGP is kept on file with the SWPPP in hard copy.

The active URL for the permit is <https://www.epa.gov/npdes/final-2021-msgp-documents>

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Attachment 1: EPC-CP-QP-2110 R1 Form 1, *MSGP SWPPP Template Example* (cont.)
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ATTACHMENT 13: THREATENED AND ENDANGERED SPECIES HABITAT MANAGEMENT PLAN FOR LOS ALAMOS NATIONAL LABORATORY

Insert the most current revision of the management plan for LANL.

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Attachment 1: EPC-CP-QP-2110 R1 Form 1, *MSGP SWPPP Template Example* (cont.)
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ATTACHMENT 14: MSGP IPAC TRUST RESOURCES REPORT

Contact the EPC-CP MSGP Program Lead for this information formatted for insertion.

NOTE: The Permit requires this information. However, LANL EPC-ES has completed consultation with U.S. Fish and Wildlife Service. Letters of Consultation are contained in the NOI (see Attachment 1). Refer to Attachment 13 for the species habitat management plan.

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ATTACHMENT 15: EPC-CP-PIP-2101, *NPDES MULTI-SECTOR GENERAL PERMIT*

Insert the most current revision of the plan into this SWPPP.

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Attachment 1: EPC-CP-QP-2110 R1 Form 1, *MSGP SWPPP Template Example* (cont.)
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ATTACHMENT 16: EPC-CP-QP-2108, *MSGP ROUTINE FACILITY INSPECTIONS*

Insert the most current revision of the appropriate procedure or parts of the procedure that pertain to this SWPPP.

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Attachment 1: EPC-CP-QP-2110 R1 Form 1, *MSGP SWPPP Template Example* (cont.)
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ATTACHMENT 17: EPC-CP-QP-2109, *MSGP CORRECTIVE ACTIONS*

Insert the most current revision of the appropriate procedure or parts of the procedure that pertain to this SWPPP.

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Attachment 1: EPC-CP-QP-2110 R1 Form 1, *MSGP SWPPP Template Example* (cont.)
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ATTACHMENT 18: EPC-CP-QP-2105, *MSGP STORMWATER VISUAL ASSESSMENTS*

Insert the most current revision of the appropriate procedure or parts of the procedure that pertain to this SWPPP.

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Attachment 1: EPC-CP-QP-2110 R1 Form 1, *MSGP SWPPP Template Example* (cont.)
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ATTACHMENT 19: EPC-CP-QP-2103, *INSPECTING STORMWATER RUNOFF SAMPLERS AND RETRIEVING SAMPLES FOR THE MSGP*

Insert the most current revision of the appropriate procedure or parts of the procedure that pertain to this SWPPP.

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Attachment 1: EPC-CP-QP-2110 R1 Form 1, *MSGP SWPPP Template Example* (cont.)
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ATTACHMENT 20: EPC-CP-QP-2106, *PROCESSING MSGP STORMWATER SAMPLES*

Insert the most current revision of the appropriate procedure or parts of the procedure that pertain to this SWPPP.

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ATTACHMENT 21: EPC-DO-QP-0930, *ENVIRONMENTAL REPORTING REQUIREMENTS FOR RELEASES OR EVENTS*

Insert the most current revision of the appropriate procedure or parts of the procedure that pertain to this SWPPP.

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Attachment 1: EPC-CP-QP-2110 R1 Form 1, *MSGP SWPPP Template Example* (cont.)
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ATTACHMENT 22: EPC-CP-QP-1007, *SPILL INVESTIGATIONS*

Insert the most current revision of the appropriate procedure or parts of the procedure that pertain to this SWPPP.

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ATTACHMENT 23: EPC-CP-QP-2110, *MSGP STORMWATER POLLUTION PREVENTION PLAN PREPARATION AND MAINTENANCE*

Insert the most current revision of the appropriate procedure or parts of the procedure that pertain to this SWPPP.

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ATTACHMENT 24: SPILL LOG

Insert a table containing the date, spill location, spilled substance, quantity, corrective action, and outfall affected if a table of spills and leaks is placed here. Delete section if not needed.

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ATTACHMENT 25: LOCAL PROCEDURE

Insert the most current revision of the appropriate procedure or parts of the procedure that pertain to this SWPPP. Change LOCAL PROCEDURE to the actual title of the procedure inserted here. Delete section if not needed. If more than one procedure is added, add additional attachment headers and name them the same way consecutively.

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Attachment 2: MSGP SWPPP Review Guidance Checklist Example

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MSGP SWPPP Review Guidance Checklist

REQUIREMENT	COMMENT	RESOLUTION
Stormwater Pollution Prevention Team		
Is the SWPPP being developed or updated by a qualified person?		
Does the SWPPP list Stormwater Pollution Prevention Team members (by name or title) and each individual's responsibilities?		
Is a copy of the SWPPP immediately available at the site and on-line?		
Contents of the SWPPP		
If the SWPPP refers to procedures or other documents, are copies of the relevant portions of these procedures or documents present in the SWPPP?		
Site Description		
Does the SWPPP include the following information?		
<ul style="list-style-type: none"> Identify a description of the nature of the industrial activities at the site Provide a general location map (e.g., U.S. Geological Survey (USGS) quadrangle map) with enough detail to identify the location of the site and all receiving waters for industrial stormwater discharges.		
Site map showing the following:		
<ul style="list-style-type: none"> Boundaries of the property and size of the property in acres Location and extent of significant structures and impervious surfaces Direction(s) of stormwater flow and site drainage (using arrows) Locations of all stormwater control measures Locations of all receiving waters, including wetlands, in the immediate vicinity of the site. Indicate which water bodies are listed as impaired and which are identified as Tier 2, Tier 2.5, or Tier 3 waters (for LANL, none) Locations of all stormwater conveyances including ditches, pipes, and swales Locations of potential pollutant sources associated with each industrial activity (see Part 6.2.3.2) that could be exposed to rainfall or snowmelt and could be discharged from the site Locations where significant spills or leaks have occurred (see Part 6.2.3.3) Location(s) of all stormwater monitoring points Location of each stormwater inlet and outfall, with a unique identification code for each outfall (i.e., 001, 002, 003, etc.), indicating if you are treating one or more outfalls as "substantially identical" (see Parts 3.2.4.5, 6.2.5.3, and 4.1.1) If applicable, location of the MS4 and where your stormwater discharges to it NOTE: Although LANL does not currently have an MS4, EPA has published a draft permit		
<ul style="list-style-type: none"> Areas of designated critical habitat for endangered or threatened species Locations of the following activities where such activities are exposed to precipitation: 		

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Attachment 2: MSGP SWPPP Review Guidance Checklist Example (cont.)

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MSGP SWPPP Review Guidance Checklist

REQUIREMENT	COMMENT	RESOLUTION
- Fueling station(s)		
- Vehicle and equipment maintenance and/or cleaning area		
- Loading/unloading areas		
- Locations used for the treatment, storage, or disposal of wastes		
- Liquid storage tanks		
- Processing and storage areas		
- Immediate access roads used by carriers of raw materials, manufactured products, waste material, or by-products used or created by the site		
- Transfer areas for substances in bulk		
- Machinery		
- Locations and sources of run-on to the site from adjacent property that contains significant quantities of pollutants		
Potential Pollutant Sources		
Are areas described in the SWPPP where industrial material or activities are exposed to stormwater or from which allowable non-stormwater discharges originate?		
NOTE 1: <i>Industrial material or activities</i> include material handling equipment or activities; industrial machinery; raw material; industrial production and processes; and intermediate products; by-products; final products, and waste products. <i>Material handling activities</i> include the storage, loading and unloading, transportation, disposal or conveyance of any raw material, intermediate product, final product or waste product.		
Are all pollutants or pollutant constituents (e.g., zinc, sulfuric acid, cleaning solvents, motor oil, diesel, gasoline, brake fluid, etc.) associated with each activity identified?		
NOTE 2: The list must include all pollutants/materials that have been handled, treated, stored, or disposed and that have been exposed to stormwater in the three years prior to the date the SWPPP is prepared or amended.		
Are areas where potential spills and leaks could occur that could contribute pollutants to stormwater discharges and the corresponding outfall(s) that would be affected by such spills and leaks identified in the SWPPP?		
Are all significant spills and leaks of oil or toxic or hazardous substances identified that actually occurred at exposed areas, or that drained to a stormwater conveyance, in the three years prior to the date the SWPPP was prepared or amended?		
Has an evaluation for the presence of unauthorized non-stormwater discharges (see Part 6.2.3.4) been done and does it include the following information?		
• Date of the evaluation		
• A description of the evaluation criteria used		

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Attachment 2: MSGP SWPPP Review Guidance Checklist Example (cont.)

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MSGP SWPPP Review Guidance Checklist

REQUIREMENT	COMMENT	RESOLUTION
<ul style="list-style-type: none"> • A list of the outfall or onsite drainages points that were directly observed during the evaluation • The action(s) taken, such as a list of control measures used to eliminate unauthorized discharge(s), or documentation that a floor drain was sealed, re-routed to sanitary, or an NPDES permit application was submitted for an unauthorized cooling water discharge 		
Is there documentation of the location of any salt storage piles used for deicing or other commercial or industrial purposes?		
Is all stormwater discharge sampling data collected at the site during the previous permit term summarized in a narrative description? This may include data tables and figures.		
Control Measures to Meet Effluent Limits		
Does the SWPPP indicate whether the following control measure selection and design criteria were considered?		
<ul style="list-style-type: none"> • Preventing stormwater from coming into contact with polluting materials is generally more effective, and less costly, than trying to remove pollutants from stormwater • Using control measures in combination which may be more effective than using control measures in isolation for minimizing pollutants in stormwater discharge • Assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to designing effective control measures that will achieve the limits in this permit • Minimizing impervious areas at the facility and infiltrating runoff onsite (including bio-retention cells, green roofs, and impervious pavement, among other approaches) can reduce runoff and improve ground water recharge and stream base flows in local streams, although care must be taken to avoid ground water contamination • Attenuating flow using open vegetated swales and natural depressions can reduce in-stream impacts of erosive flows • Conserving and/or restoring riparian buffers will help protect streams from stormwater runoff and improve water quality • Using treatment interceptors (e.g., swirl separators and sand filters) may be appropriate in some instances to minimize the discharge of pollutants. 		
Implementing structural improvements, enhanced/resilient pollution prevention measures, and other mitigation measures to minimize impacts from stormwater discharges from major storm events and flood events (see Part 2.1.1.8).		
Does the SWPPP indicate how the control measure addresses the potential pollutant sources?		
Are the selection and design considerations for control measures to meet the following non-numeric technology-based effluent limits (see Part 2.1.2) identified in the SWPPP?		

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Attachment 2: MSGP SWPPP Review Guidance Checklist Example (cont.)

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MSGP SWPPP Review Guidance Checklist		
REQUIREMENT	COMMENT	RESOLUTION
<ul style="list-style-type: none"> • Minimize Exposure: All manufacturing, processing and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) must have controls that minimize exposure to pollutant discharges by either locating these industrial materials and activities inside or protecting them with storm resistant coverings. - Use grading, berming or curbing to prevent runoff of contaminated flows and divert run-on away from these areas; - 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. 		
<ul style="list-style-type: none"> • Good housekeeping (all areas where potential pollutants are exposed to stormwater must be kept clean). - Sweep or vacuum at regular intervals or wash down the area and collect and/or treat and properly dispose of the washdown 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 1.2.2 of the permit does not authorize dry weather discharges from dumpsters or roll off boxes. * 		
<p>* You may include extra information, or you may just "cut-and-paste" these effluent limits verbatim into the SWPPP w/out providing additional documentation.</p> <ul style="list-style-type: none"> - Minimize the potential for waste, garbage, and floatable debris to be discharged by keeping exposed areas free of such materials. 		
<ul style="list-style-type: none"> • Maintenance (All industrial equipment, systems and control measures must be maintained in effective operating condition in order to minimize pollutant discharges). <p>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.</p>		

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Attachment 2: MSGP SWPPP Review Guidance Checklist Example (cont.)

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MSGP SWPPP Review Guidance Checklist

REQUIREMENT	COMMENT	RESOLUTION
- 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 reasonable steps (see Part 5.1.3.1 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 5.1 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 5.1), 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?		
<ul style="list-style-type: none"> • Spill Prevention and Response - The potential for leaks, spills, and other release must be minimized by the development of plans for effective response to such spills if or when they occur in order to minimize pollutant discharges. 		
- Plainly label containers (e.g., "Used Oil," "Spent Solvents," "Fertilizers and Pesticides") that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur.*		
- Implement procedures for material storage and handling including use of secondary containment and barriers between material storage and traffic areas.		
- Develop training on the procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases as soon as possible.		
- Keep spill kits on-site, located near areas where spills may occur or where a rapid response can be made.		
- Notify appropriate facility personnel when a leak, spill, or other release occurs. Where a leak, spill or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR part 302, occurs during a 24-hour period, you must notify the National Response		

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MSGP SWPPP Review Guidance Checklist

REQUIREMENT	COMMENT	RESOLUTION
Center (NRC) at (800) 424-8802 in accordance with the above referenced requirements as soon as you have knowledge of the discharge.		
- In the event of a spill, does the SWPPP indicate where the contact information is so that it is readily accessible and available?		
• Erosion and Sediment Controls		
- Does the SWPPP identify how exposed soils will be stabilized to minimize pollutant discharges?		
- Does the SWPPP identify flow velocity dissipation devices placed at discharge locations to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points?		
- Does the SWPPP identify structural and non-structural control measure to minimize the discharge of sediment?		
- If polymers and/or other chemical treatments are used for dust control or stabilization, does the SWPPP must identify the polymers and/or chemicals used and the purpose?		
• Management of Runoff - Does the SWPPP identify how stormwater runoff is diverted, infiltrated, reused, contained, or otherwise reduced to minimize pollutants in the discharge?		
• Salt Storage Piles or Piles Containing Salt - Does the SWPPP identify how salt piles are enclosed or covered?		
- Are controls in place to minimize exposure to stormwater resulting from adding to or removing materials from the salt pile?		
• Non-Stormwater Discharges - Does the SWPPP indicate that personnel will evaluate the site for non-stormwater discharges not explicitly authorized in Part 1.2.2 or covered by another NPDES permit and eliminate the discharge?		
• Dust Generation and Vehicle Tracking of Industrial Materials - Does the SWPPP indicate dust generation and off-site tracking of raw, final, or waste materials must be minimized in order to minimize pollutant discharges?		
Control Measures to Meet Numeric Effluent Limitations Guidelines-Based Limits (see Part 2.1.3 and Part 8)		
Are effluent limitations identified for the Sector D facility (Asphalt Paving) (see Part 8.D.5)?		
Control Measures to Meet Water Quality Based Effluent Limits (see Part 2.2 and Part 9.6.2)		
Are the benchmark values (i.e., the lowest New Mexico Water Quality Standard) listed in MSGP Section 9.6.2.2 identified in the SWPPP?		
Schedules and Procedures - Control Measures		
Does the SWPPP contain a schedule or convention used for determining when pickup or disposal of waste materials occurs?		

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MSGP SWPPP Review Guidance Checklist

REQUIREMENT	COMMENT	RESOLUTION
Are preventative maintenance procedures (including regular inspections, testing, maintenance and repair) for all control measures included in the SWPPP to avoid situations that may result in leaks, spills, and other releases?		
Are backup practices in place should a runoff event occur while a control measure is off line?		
Is there a schedule or frequency for maintaining all control measures?		
Are procedures included in the SWPPP for preventing and responding to spills and leaks, including notification procedures?		
Are control measures for material handling and storage identified?		
Are clean-up equipment, procedures and spill logs (i.e., reportable and non-reportable spill reports and the MSGP Corrective Action Reporting database) identified?		
Schedules and Procedures - Employee Training		
Are the following employees identified as requiring training? Information to be managed in accordance with P204-1, <i>Controlled Unclassified Information</i> and only available upon request.		
• Personnel who are responsible for the design, installation, maintenance and/or repair of controls (including pollution prevention measures)		
• Personnel responsible for the storage and handling of chemicals and materials that could become contaminants in stormwater discharges		
• Personnel who are responsible for conducting and documenting monitoring and inspections		
• Personnel who are responsible for taking and documenting corrective actions		
Are the following identified as elements of required training?		
• An overview of what is in the SWPPP		
• Spill response procedures, good housekeeping, maintenance requirements, and material management practices		
• The location of all controls on the site required by this permit and how they are to be maintained		
• The proper procedures to follow with respect to the permit's pollution prevention requirements		
• When and how to conduct inspections, record applicable findings, and take corrective actions		
Are the following elements of the training plan documented?		
• Content of the training		
• Frequency/schedule of training		
Are records of completed training kept in accordance with LANL OOU guidelines?		
Schedules and Procedures - Inspections and Assessments		
Is the procedure identified for conducting routine facility inspections?		
Is the procedure identified for conducting visual assessments?		

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MSGP SWPPP Review Guidance Checklist

REQUIREMENT	COMMENT	RESOLUTION
For each type of inspection performed (i.e., routine inspection and visual assessments) does the SWPPP identify the 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 3.2.4)?		
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 3.1.5, 3.2.4.4, 4.2.2.5 and 4.2.5.2. That is, the SWPPP must contain a signed certification indicating that there are no industrial materials or activities exposed to precipitation at the site and the NOI must be modified and re-certified.		
Schedules and Procedures - Monitoring		
Does the SWPPP contain documentation of procedures used to conduct benchmark, effluent limitations guidelines and impaired waters monitoring?		
Are locations where samples are collected, including any determination that two or more outfalls are substantially identical, in the SWPPP?		
Are parameters for sampling and the frequency of sampling for each parameter listed?		
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 4.2.1.2)?		
Are numeric control values (benchmark, effluent limitations guidelines, and water quality standards) applicable to discharges from each outfall identified?		
Does the SWPPP list procedures for gathering storm event data (see Part 4.1.3)?		
Schedules and Procedures - Substantially Identical Outfalls (SIDPs)		
Does the SWPPP contain the following relative to Substantial Identical Discharge Points (SIDPs)?		
• Location of each of the SIDPs		
• 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 materials 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 SIDPs		
Do SIDPs identified on the SWPPP map match those identified in MDMRs?		
Is there language indicating quarterly visual assessments of SIDPs will be performed on a rotating basis throughout the permit term?		

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Attachment 2: MSGP SWPPP Review Guidance Checklist Example (cont.)

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MSGP SWPPP Review Guidance Checklist		
REQUIREMENT	COMMENT	RESOLUTION
Is there language indicating quarterly visual assessment of the discharge at one SIDP will also apply to the other SIDPs?		
Corrective Action Documentation - If an event triggering corrective action is associated with an SIDP, did the review of the need for action encompass all related substantially identical outfalls?		
Documentation		
Does the SWPPP contain the following up-to-date and complete inspection, monitoring, and certification records?		
<ul style="list-style-type: none"> • 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 acknowledgment 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 3.1.6) and Quarterly Visual Assessment Reports (see Part 3.2.3). • 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 3.2.4 and 4.1.5) • Corrective action documentation (see Part 5.1) • Documentation of any benchmark threshold exceedances, the associated AIM Level and response: <ul style="list-style-type: none"> - Is rationale included that SCM changes are unnecessary?; - Documentation required to meet any AIM Exception (see Part 5.2.6); - A determination from EPA that benchmark monitoring can be discontinued because the exceedance was due to run-on. OR - A finding that no further pollutant reductions were technologically available and economically practicable and achievable in light of best industry practice consistent with Part 2 • Documentation to support any determination that pollutants of concern are not expected to be present above natural background levels if you discharge directly to impaired waters and that such pollutants were not detected in your discharge or were solely attributable to natural background sources. (see Part 4.2.5.1) 		

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Attachment 2: MSGP SWPPP Review Guidance Checklist Example (cont.)

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MSGP SWPPP Review Guidance Checklist

REQUIREMENT	COMMENT	RESOLUTION
<ul style="list-style-type: none"> 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). 		
<ul style="list-style-type: none"> 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 1.1.5). 		
<ul style="list-style-type: none"> All Discharge Monitoring Reports and Annual Reports 		
<ul style="list-style-type: none"> Support for claim that facility has changed its status from active to inactive and is unstaffed with respect to the requirements to conduct routine facility inspections (see Part 3.1.5), quarterly visual assessments (see Part 3.2.4.4), benchmark monitoring (see Part 4.2.2.5), and/or impaired waters monitoring (see Part 4.2.5.2). 		
Is the SWPPP signed and dated by a duly authorized representative (per Appendix B.11)?		
Is the Annual Report signed by a duly authorized representative (per Appendix B.11)?		
SWPPP Modifications		
Where a corrective action triggers a change in any of the control measures or procedures, has the SWPPP been updated within 14 calendar days of completing the corrective action (see Part 6.3)?		
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?		
<ul style="list-style-type: none"> 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. 		
<ul style="list-style-type: none"> A discharge violates a numeric effluent limit listed in Table 2-1 and in the sector specific requirements. 		
<ul style="list-style-type: none"> 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. 		
<ul style="list-style-type: none"> 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. 		
<ul style="list-style-type: none"> Whenever a visual assessment shows evidence of stormwater pollution (e.g., color, odor, floating solids, settled solids, suspended solids, foam, etc.). 		
<ul style="list-style-type: none"> 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. 		

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Attachment 2: MSGP SWPPP Review Guidance Checklist Example (cont.)

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MSGP SWPPP Review Guidance Checklist

REQUIREMENT	COMMENT	RESOLUTION
<ul style="list-style-type: none"> The average of four quarterly sampling results exceeds an applicable benchmark (see Part 4.2). If less than four benchmark samples have been taken, but the results are such that an exceedance of the four quarter average is mathematically certain (i.e., the sum of quarterly sample results to date is more than four times the benchmark level) this is considered a benchmark exceedance. 		
Public Accessibility of SWPPP		
Is your SWPPP uploaded to the URL provided in the NOI?		
Are subsequent SWPPP modifications (updates), records and all other reporting elements required for the previous year updated no later than 45 days after conducting the final routine facility inspection for the year?		
If you did not upload your SWPPPs to a URL, was the following information provided in the NOI and documented in the SWPPP?		
<ul style="list-style-type: none"> Onsite industrial activities exposed to stormwater, including potential spill and leak areas (see Parts 6.2.3.1, 6.2.3.3 and 6.2.3.5); 		
<ul style="list-style-type: none"> 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 1.2.2.1 (see Part 6.2.3.2) 		
<ul style="list-style-type: none"> 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. 		
<ul style="list-style-type: none"> The schedule for good housekeeping and maintenance and schedule for all inspections required in Part 3. 		
Are modifications to the SWPPP information, required in the four bullets above, updated no later than 45 days after conducting the final routine facility inspection for the year and uploaded onto a URL that is accessible by the public (i.e., eprt.lanl.gov).		
Corrective Actions		
Are corrective actions documented within 24 hours of becoming aware of such condition?		
Is the condition triggering the need for the corrective action identified?		
Is the date the corrective action was identified captured?		
Was immediate action taken to minimize or prevent the discharge of pollutants?		
In the case of leaks and spills, were response actions, date/time of clean up, notification, etc. documented?		

ATTACHMENT 24: SPILL LOG

ATTACHMENT 25: P409, *LANL WASTE MANAGEMENT*

No: P409

Revision: 9

Issued: 10/03/24

Effective Date: 10/03/24

LANL Waste Management

1.0 CONTACT

Environmental Protection and Compliance-Division Office (EPC-DO)

Telephone: (505) 667-2211

Location: TA-0, Building 480

Website: <https://int.lanl.gov/org/ddops/aldehq/environmental-waste-programs/environmental-protection-compliance/index.shtml>

2.0 AUTHORITY AND APPLICABILITY

2.1 Authority

- Issuing Authority: Associate Laboratory Director for Environment, Safety, Health, and Quality (ALDESHQ)
- Responsible Manager: Environmental and Waste Programs (EWP) Senior Director
- Responsible Office: Environmental and Waste Programs Office (EWPO)
- Owning Management System: Environmental Management and Stewardship (ENVIRT), Waste Management (WM)

2.2 Applicability

This document and its implementing procedures apply to all Laboratory facilities, workers, programs and activities under the jurisdiction of the management and operations prime contract, and in some cases to Los Alamos National Laboratory (LANL or the Laboratory) waste generating activities off-site. Laboratory workers include employees, guests, students, subcontractors (including lower tier subcontractors) and parent company workers performing work at LANL or other DOE owned or leased facility, in the absence of an equivalent waste management document.

2.3 Scope

This document provides the requirements necessary for responsible waste management at LANL to include planning, generation, determination and characterization, packaging, accumulation and storage, transportation, treatment, and disposal.

2.4 Associated Management Systems

This document is associated with the following management systems:

- Document Control and Records Management (DCRM)
- Emergency Management (EM)
- Facilities and Operations Management (FO)
- Institutional Quality & Performance Assurance (IQPA)
- Legal (LEGAL)
- Nuclear Safety Management (NSM)

- Safeguards and Security (S&S)
- Safety and Health (S&H)
- Training (TRNG)
- Radiation Protection (RP)

3.0 PURPOSE

This document describes the Triad National Security, LLC (Triad) waste management process at LANL, or the Laboratory. Specifically, this policy document describes the Laboratory's system for safely and compliantly characterizing, packaging, storing, treating, disposing, and transporting the various sanitary, hazardous, radioactive, and otherwise regulated wastes generated by LANL activities. This process includes the proper management of contaminated environmental media (e.g., excavated soil) and recyclable materials.

The Laboratory's waste management process has the following goals:

- To systematically plan, document, execute, and manage the Laboratory's various wastes;
- To manage waste from "cradle to grave" (generation to disposal);
- To protect the public, environment, and workers from exposure to radioactive and chemical wastes; and
- To comply with regulatory requirements.

As stated in P315, *Conduct of Operations Manual*, it is the policy of the Laboratory that the primary consideration in operation of its facilities is the safety of the public, workers, environment, and national security assets and to perform its operations effectively. The waste management system described in P409, *LANL Waste Management* and its various implementing procedures meets the P315 intention as it applies to wastes from Laboratory activities.

3.1 Introduction

The Laboratory creates a variety of wastes, each with its own regulatory requirements and disposal pathway. However, the basic waste management process is always the same, as illustrated in Fig. 1.

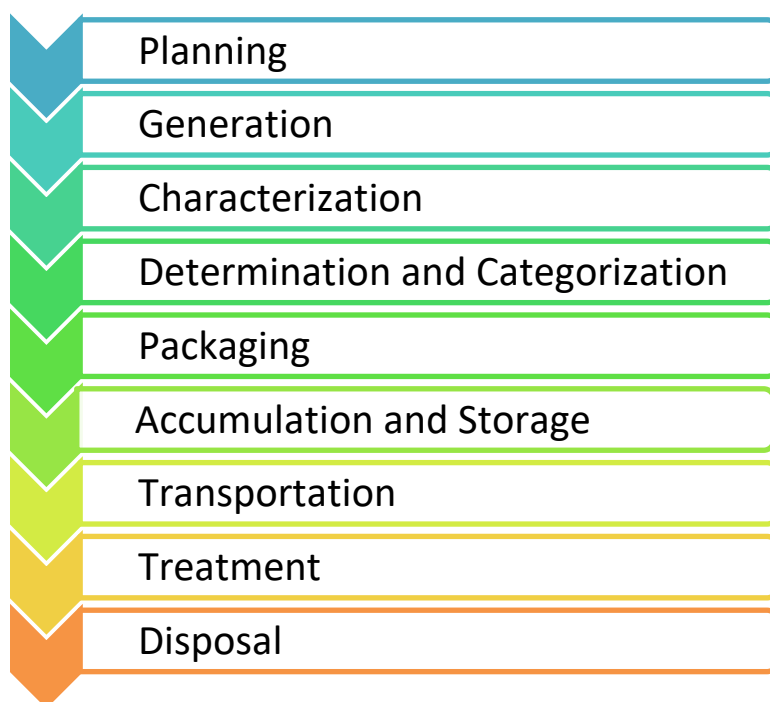


Fig.1. LANL Waste Management Process

This policy document provides a general overview of the Laboratory's waste management process, which includes both implementing activities and compliance assurance/oversight activities. It is the Laboratory's intention that waste management be a seamless collaboration between waste management personnel and other members of the Laboratory's workforce. This working partnership enhances the Laboratory's ability to perform research, improve facilities, and accomplish its mission.

This policy document describes the overall waste management process so the reader will have a general understanding of how waste is managed. Each process step will reference implementing documents (such as Functional Series Documents [FSDs], Administrative Procedures [APs], Technical Procedures [TPs], or Instructional Guidance [IG] documents) that will present the specific requirements, roles, and responsibilities for that activity. By implementing this document and its associated procedures, Laboratory personnel ensure that waste is managed safely, compliantly, efficiently, and in a cost-effective manner. Improper waste management may cause harm to personnel, the public, and the environment, as well as mission delays, rework, disciplinary actions, corrective or preventive actions, rejected waste, fines, or criminal charges. It is every Laboratory worker's responsibility to facilitate and support proper waste management.

3.2 Compliance Implementation and Assurance

Implementing the Laboratory's waste management system is a collaborative effort between Environment and Waste Programs (EWP) personnel and the various Laboratory Directorates. EWP is a program office housing several Laboratory Divisions. It is responsible for coordinating the efforts of all waste management organizations at LANL.

EWP provides Waste Management Coordinators (WMCs) to waste generating organizations and facilities to assist those organizations with planning, characterizing, packaging, and storing waste (Nuclear Process Infrastructure Division [NPI] provides these services for transuranic [TRU] and mixed transuranic [MTRU] waste generators). EWP also has waste management subject matter experts (SMEs) that collect waste characterization samples, analyze data, perform formal waste determinations, ship waste, perform waste-related subcontracting, maintain waste permits, and facilitate waste treatment and disposal.

Table 1. Compliance Implementation and Assurance Activities	
Implementation Activities	Assurance Activities
Planning	Assessments
Generation	Requirements Tracking
Characterization	Generator Assistance
Determination	Nevada Waste
Packaging	Disposition
Storage	Compliance Oversight
Transportation	Waste Verification
Treatment	Nevada Waste
Disposal	Certification
Permitting and Reporting	Procedure Review
Pollution Prevention	Project Review
Recordkeeping	
Training	
Difficult Waste Resolution	

EWP implementation also includes procedure and other document reviews by appropriate SMEs. Procedures and work authorization documents (such as subcontract Exhibit D, Scopes of Work) for LANL projects or activities that involve generating or otherwise managing waste represent interrelated processes as described in P315, *Conduct of Operations Manual*. EWP provides WMCs, NPI personnel, and other SMEs to Responsible Line Managers (RLMs) to review and comment on the waste management aspects of interrelated process documents as part of a settlement agreement with the New Mexico Environment Department (NMED) for a 2014 incident.

In addition, the Laboratory is responsible for independently confirming that waste is being managed compliantly. The Environmental Protection and Compliance Division Waste Management Programs group (EPC-WMP) and NPI personnel perform this independent compliance assurance function, which includes routinely assessing all aspects of waste management. Table 1 shows the various implementation and assurance activities. See PD-P409-0001, *Waste Management Compliance Program*, for more information about the Laboratory's compliance assurance program.

3.3 Guiding Principles

The Laboratory's waste management process is designed to comply with federal and state regulations and Laboratory policies. Compliance with these regulations and policies is demonstrated with documented and defensible evidence. As such, the Laboratory has created the following guiding principles to communicate the intent and goals regarding proper waste management practices.

- All waste generating organizations at LANL will make reasonable and intentional efforts to estimate future waste generation rates.
- All waste generating organizations at LANL will dedicate adequate waste storage space and resources to effectively manage the expected waste.
- All waste generating organizations at LANL will make reasonable and intentional efforts to reduce waste volume and risk.
- The physical, chemical, radiological, biological, and security nature of each waste will be documented at the point of generation, before any dilution, mixing, or other alteration of the waste occurs. Such documentation will be valid and legally defensible.
- All waste will have a documented hazardous waste determination at the point of generation before any dilution, mixing, or other alteration of the waste occurs. All waste will be categorized and managed in a manner consistent with that determination.
- All waste will be safely and compliantly characterized, packaged, stored, treated, disposed, and transported as applicable.
- A comprehensive, timely, and accurate inventory of waste containers packaged for shipment will be maintained in the Laboratory's Waste Compliance and Tracking System (WCATS).
- Waste management processes and services will be continuously improved.

4.0 ROLES AND RESPONSIBILITIES

LANL organizations have various position titles and division of responsibilities based on the size of the organization and the complexity of the work being performed. For this document, process personnel are the individuals (including subcontractors) who perform waste generating work for a Waste Generating Organization. The Facility Operations Director (FOD) position title is used as the position with overall responsibility for facility operations. The FOD's organization becomes a Waste Generating Organization when facility work generates waste.

4.1 Process Personnel/Waste Generators

- Plan waste generation and management as described in SD400, *Environmental Management System*, and FSD-P409-0100, *Waste Planning*.
- Reduce risk and waste volume as described in EPC-ES-GUIDE-016, *Pollution Prevention is Source Reduction*.
- Identify and get approval for No Disposal Path waste prior to generating it.
- Perform waste generating work safely, securely, and compliantly.
- Collaborate with WMC and/or Acceptable Knowledge (AK) personnel to characterize waste comprehensively and to identify compatibility issues.
- Re-characterize waste when necessary and communicate new characterization information to the assigned WMC or NPI AK personnel.
- Collaborate with WMC or NPI AK personnel to complete and sign Waste Stream Profiles.
- Revalidate and extend ongoing Waste Stream Profiles annually.
- Resubmit Waste Stream Profiles for ongoing wastes as prompted by WCATS.
- Collaborate with WMC and NPI AK personnel to package, mark, and label waste per approved Waste Stream Profiles and WMC/NPI direction.
- Store waste containers per WMC direction as described in FSD-P409-0600, *Waste Accumulation and Storage*.

- Collaborate with assigned WMC or NPI AK personnel to maintain an accurate inventory of waste containers.
- Obtain authorization to perform generator waste treatment per FSD-P409-0800, *Waste Treatment Decision Making*.
- Notify WMC or AK personnel when waste volume approaches accumulation storage limits and needs to be packaged or sealed (e.g., waste in a Satellite Accumulation Area (SAA) or a radioactive waste staging [accumulation] area).
- Sign waste documentation and attest to its accuracy, including waste documentation for waste created by onsite subcontractors.
- Complete training as described in Section 6.0, *Training*.

4.2 Waste Generating Organizations

- In collaboration with the FOD, NPI, and/or WMC, plan and forecast waste generation and management as described in SD400, *Environmental Management System*, and FSD-P409-0100, *Waste Planning*.
- In collaboration with the WMC, NPI, and/or EPC-ES, reduce risk and waste volume as described in EPC-ES-GUIDE-016, *Pollution Prevention is Source Reduction*.
- Ensure chemicals, materials and wastes are transitioned to new process personnel whenever the original process owner is re-assigned or leaves the Laboratory.
- Hold personnel accountable for performing their waste management responsibilities appropriately.
- With respect to TRU and MTRU waste, comply with the requirements of and perform the actions assigned to the First Line Manager and the Responsible Division Leader/Designee in CCP-PO-012, *CCP/Triad National Security LLC at Los Alamos National Laboratory (LANL) Interface Document*.
- Prohibit personnel from performing generator waste treatment without first receiving approval from EPC-WMP as described in FSD-P409-0800, *Waste Treatment Decision Making*.
- Ensure waste generators are identified for each activity that produces waste.
- Ensure waste generators complete/maintain training as described in Section 6.0, *Training*.
- Ensure proper management of waste from work activities.

4.3 Facility Operations Directors (FODs)

- Act as and fulfill all responsibilities of waste generating organizations for facility maintenance, construction, renovation, and demolition projects.
- In collaboration with waste generating organizations and WMCs, ensure adequate floor space, personnel, funding, and resources for managing wastes.
- Hold organizations accountable for safely and compliantly managing waste in their facilities.
- Create, implement, and maintain Radioactive Waste Management Basis documents, if applicable.
- With respect to TRU and MTRU waste, comply with the requirements of and perform the actions assigned to the Facility Operations Director/Designee in CCP-PO-012, *CCP/Triad National Security LLC at Los Alamos National Laboratory (LANL) Interface Document*.
- Ensure that no waste is improperly disposed of or abandoned in their facilities.

- Confirm that facility-related corrective and preventive actions from internal and external assessments relating to their facilities are corrected in a timely manner and that future issues are prevented.
- Implement processes ensuring that waste management is addressed prior to authorizing work.
- Understand waste permits applicable to their assigned areas and implement processes that ensure compliance with those permit requirements.
- Issue local-level procedures for waste management activities that comply with this policy document and its implementing procedures.
- Route local level procedures for waste management activities through the ALDESHQ review and approval process.

4.4 ALDESHQ Directorate

- Ensure there are appropriate staffing and resourcing for Environment and Waste Programs to manage waste from LANL's mission activities.
- With respect to TRU and MTRU waste, comply with the requirements of and perform the actions assigned to the Environmental, Safety, and Health Support and the Institutional Quality & Performance Assurance (IQPA) Division Leader/Designee in CCP-PO-012, *CCP/Triad National Security LLC at Los Alamos National Laboratory (LANL) Interface Document*.

4.5 Environment and Waste Programs

- Maintain and implement P409 *LANL Waste Management*, P409-1 *LANL Waste Acceptance Criteria*, and related implementing documents.
- Establish waste management requirements, processes, and services.
- Coordinate with DOE to approve generation of No Path Forward wastes.
- With respect to TRU and MTRU waste, comply with the requirements of and perform the actions assigned in CCP-PO-012, *CCP/Triad National Security LLC at Los Alamos National Laboratory (LANL) Interface Document*.
- Confirm that corrective and preventive actions, arising from internal and external assessments relating to waste management, are implemented in a timely manner and that future issues are prevented.

4.6 Waste Management Division

- Plan waste generation and management as described in SD400, *Environmental Management System*, and FSD-P409-0100, *Waste Planning*.
- Support P2 and waste minimization as described in EPC-ES-GUIDE-016, *Pollution Prevention is Source Reduction*.
- Develop and maintain appropriate subcontracts for performing waste management activities.
- Provide support for difficult and no-disposal path waste streams.
- Maintain inventory of ready to use waste containers and equipment for the Laboratory.
- Responsible for all onsite and offsite LANL waste transportation other than TRU and MTRU.
- Serve as the final authority for approving the shipment and disposal of waste.
- Verify completion of the receiving facility documentation and notifications for LANL.

- Evaluate and approve offsite Treatment, Storage, and/or Disposal Facilities (TSDFs).
- Confirm that corrective and preventive actions arising from internal and external assessments are corrected in a timely manner and that future issues are prevented.
- Verify proper waste characterization and packaging before shipping waste onsite or offsite.
- Ensure waste personnel have appropriate support to adequately perform waste management activities.
- Provide trained, qualified, and equipped WMCs and Technicians to waste generating organizations to collaborate with generators and to implement waste management activities.
- Hold personnel accountable for safely and compliantly handling, packaging, transporting, and storing waste.
- Maintain and implement the WMC, WMT, and waste shipper qualification and training programs.
- Develop and maintain waste management training.

4.7 Waste Management Coordinators

- Assist waste generators and waste generating organizations in waste planning activities as described in FSD-P409-0100, *Waste Planning*.
- Assist waste generators and waste generating organizations in P2 activities as described in EPC-ES-GUIDE-016, *Pollution Prevention is Source Reduction*.
- Assist process personnel, including subcontractors, in safely and compliantly handling, packaging, and storing waste.
- Collaborate with process personnel (including subcontractors) to characterize waste and identify compatibility concerns.
- Review WCATS Waste Stream Profiles to verify generator signature and characterization.
- Safely and compliantly package waste.
- Actively manage and inspect registered waste storage areas in their assigned facilities as described in FSD-P409-0600, *Waste Accumulation and Storage*.
- Submit waste disposal requests per TP-P409-0700, *On-Site Waste Management Field Tasks*.
- Communicate with WM-WGS, WM-WMS and EPC-WMP if waste shipment dates are nearing regulatory deadlines for storage.
- Serve as the primary point of contact for facilities and/or FODs on waste management compliance issues, including inspections and assessments.
- Disseminate waste management information to generators in their facilities.

4.8 Environmental Protection and Compliance Division

- Plan waste generation and management as described in SD400, *Environmental Management System*, and FSD-P409-0100, *Waste Planning*.
- Administer the Laboratory's Pollution Prevention program.
- Provide trained, qualified, and equipped sample collection personnel.
- Initiate the review of waste characterization documentation when new information or discrepancies in waste characterization are discovered.

- Review CCP waste documentation and characterization, when requested.
- With respect to TRU and MTRU waste, comply with the requirements of and perform the actions assigned to the Environmental Protection & Compliance (EPC) Division Leader/Designee in CCP-PO-012, *CCP/Triad National Security LLC at Los Alamos National Laboratory (LANL) Interface Document*.
- Ensure that Nevada National Security Site (NNSS)-destined waste packagings are certified by a qualified Waste Package Certifier.
- Certifies waste for disposition at NNSS.
- Review and approve generator waste treatment requests.
- Maintain LANL facility operations certification and offsite receiving facility certification.
- Provide NNSS notification and reporting to regulatory oversight bodies.
- Implement waste compliance assurance activities, including monitoring work in progress and conducting compliance assessments (i.e., through independent assessment and waste verification).
- Coordinate information and compliance requests and activities with regulators.
- Provide regulatory information and institutional guidance on waste compliance requirements.
- Develop and maintain the waste verification program.
- Evaluate and concur with corrective actions regarding waste management. When this involves waste destined for NNSS, ensure that evaluation and concurrence is performed by the NNSS Waste Certification Official.
- Apply for and maintain Hazardous Waste Facility Permit.
- Complete and submit Permit related reports.
- Document compliance or noncompliance with characterization/certification requirements and reports to DOE Los Alamos Field Office and DOE-Environmental Management (EM) Los Alamos Field Office.
- Document waste certification status resulting from internal audits and respond to external audits and assessments.
- Provide notification and reporting to client and regulatory oversight bodies.
- Approve exceptions and/or variances to P409 and its implementing FSDs.
- Verify waste personnel (such as Alternate Waste Certification Official and Waste Packaging Certifiers) have appropriate training.
- Evaluate and document qualification to support waste management activities.
- Determine whether facilities and systems are adequate to maintain waste certification until shipment.
- Maintain WCATS.

4.9 Nevada National Security Site (NNSS) Waste Certifying Official

- Serve as the final authority for approving the shipment and disposal of waste to NNSS facilities.
- Verify completion of the receiving facility documentation and notifications for LANL waste sent to NNSS facilities.

- Concur with corrective and preventive actions related to waste destined for NNSS waste certification activities and document that concurrence.
- Verify proper waste characterization and packaging before shipping waste to NNSS.

4.10 NPI Division

- Determine whether TRU waste management facilities and systems are adequate to maintain waste certification until shipment and for continuous waste generation.
- With respect to TRU and MTRU waste, comply with the requirements of and perform the actions assigned to the First Line Managers and Responsible Division Leader/Designee in CCP-PO-012, *CCP/Triad National Security LLC at Los Alamos National Laboratory (LANL) Interface Document*.
- Responsible for all onsite and offsite LANL waste transportation of TRU and MTRU.
- Serve as the final authority for approving the shipment and disposal of TRU and MTRU.
- Certify TRU and MTRU waste shipments to WIPP.
- Perform TRU waste storage, packaging, and characterization at TA-55, RANT, the TRU Waste Facility, and CMR.

4.11 Nuclear Engineering and Nonproliferation Division

With respect to TRU and MTRU waste, comply with the requirements of and perform the actions assigned to the Nuclear Engineering and Nonproliferation Division Leader/Designee in CCP-PO-012, *CCP/Triad National Security LLC at Los Alamos National Laboratory (LANL) Interface Document*.

4.12 All Personnel

- Upon request, collaborate with waste generators and WMCs to reduce waste volume and risk.
- Upon request, assist waste generators and WMCs in characterizing waste.
- Upon request, collaborate with generators and WMCs to evaluate chemical compatibility concerns.
- Be aware of waste management requirements and notify WMCs of any concerns, including concerns about improper waste generation, characterization, handling, storage, or disposal.

5.0 DESCRIPTION

The Laboratory's waste management process is described in the following sections. Specific requirements are listed in implementing documents for each section.

5.1 Waste Planning

As stated in P300, *Integrated Work Management*, all work at LANL is planned work. While meeting Integrated Work Management (IWM) planning requirements, LANL organizations must plan work activities in enough detail to identify potential wastes, estimate waste volume, and prepare for appropriate packaging, storage, transport, treatment, and disposal activities associated with those wastes.

Guiding Principle
All waste generating organizations at LANL will make reasonable and intentional efforts to estimate future waste generation rates.

As described in FSD-P409-0100, *Waste Planning*, effective waste management planning ensures that:

- Pre-start requirements (such as regulatory notifications, permit modifications, and qualified personnel/subcontractors) are met before activities begin.
- There is adequate funding for waste planning, permitting, packaging, characterization, storage, treatment, transportation, and disposal.
- The waste meets the requirements of both P409-1, *LANL Waste Acceptance Criteria (WAC)*, and an appropriate off-site receiving facility's WAC.
- DOE review and approval is completed for any waste that does not have a disposal pathway.
- There is adequate floor space, equipment, and qualified waste management personnel available to accommodate expected waste volumes.
- Responsible personnel and organizations are identified, including the assigned WMC, NPI Acceptable Knowledge (AK) Specialist/Technologist (for TRU and MTRU), waste generator, and alternates.
- Waste management is effectively integrated into work and project schedules.
- Waste management requirements are effectively flowed down to subcontractors, as needed.

Guiding Principle
All waste generating organizations at LANL will dedicate adequate space and resources to effectively manage the expected waste.

Waste planning at the Laboratory involves the use of the Integrated Review Tool (IRT) (that includes the Permits and Requirements Identification (PRID) and Excavation Permit tools) and the planning process described in FSD-P409-0100, *Waste Planning*. The IRT provides generators and managers with information and requirements associated with the wastes they may generate as part of project execution. It also allows waste personnel to identify and communicate work area requirements that may affect the waste. FSD-P409-0100, *Waste Planning*, provides the steps for generating organizations to plan their activities and inform EWP personnel so that adequate space, containers, equipment, personnel, and permits are available to support the work without interruption or delay.

For specific, mandatory waste planning requirements and processes, see FSD-P409-0100, *Waste Planning*, and SD400, *Environmental Management System*.

5.1.1 ***Reduce Risk through Pollution Prevention and Waste Minimization***

As part of planning, organizations and personnel must investigate methods for reducing waste volume, toxicity, and risk. This is done by implementing Pollution Prevention (or P2) strategies, such as those listed below:

Guiding Principle
All waste generating organizations at LANL will make reasonable and intentional efforts to reduce waste volume and risk.



Best

Least

- Eliminate the waste stream entirely.
- Eliminate radioactive and/or chemical constituents from the waste stream via substitution.
- Reduce the amount of a waste stream that is generated.
- Reduce the concentration of radioactive and/or chemical constituents in the waste stream.
- Reuse the waste (or part of the waste) in an appropriate fashion.
- Recycle the waste.

LANL

Contact the EPC Environmental Stewardship (EPC-ES) Pollution Prevention program and see EPC-ES-GUIDE-016, *Pollution Prevention is Source Reduction*, for specific P2 processes.

5.1.2 Identify and Address Difficult Waste Streams

Effective planning should identify difficult or complex waste streams as part of the IWM “Identify and Analyze Hazards” step. Certain wastes present unique challenges that make them difficult to handle, transport, treat, or dispose of offsite. These wastes must be safely stored onsite until appropriate actions are taken to accommodate final disposition. These difficult waste streams historically have included waste with the following concerns:

- High radioactivity or dose,
- Radioactive gas,
- Classified shapes or materials,
- Explosives contamination,
- Container integrity issues from waste content due to unknown causes, gas generation, bulging, heat, etc.,
- Requirement for permitted waste treatment prior to offsite shipment when that treatment is not currently included in the Laboratory’s Hazardous Waste Facility Permit, and/or
- Presence of a condition or contaminant that is not easily remediated and that prevents the waste from meeting an offsite facility’s WAC.

To mitigate these risks, LANL has developed a Difficult Waste Strategy that includes a process for early identification and evaluation of potential difficult waste streams. All new waste generating processes and any activities involving decommissioning of equipment or facilities shall be reviewed early in the planning phase through FSD-P409-0100, *Waste Planning* and the PRID process to identify potential difficult waste streams. When the potential for generation of a difficult waste is identified, EPC-WMP performs a technical and regulatory evaluation of the waste to determine if there are existing disposition options for the waste or if one must be developed. The difficult waste process (described in AP-P409-0101, *Difficult Waste Streams*) allows for consultation with other LANL entities, as well as off-site personnel if necessary.

Contact EPC and Waste Management (WM) Divisions and see AP-P409-0101, *Difficult Waste Streams*, for assistance.

5.1.3 Identify and Get Approval for Waste with No Disposal Path

DOE M 435.1-1 Chg. 3, *Radioactive Waste Management Manual*, requires that waste planning include preliminary waste characterization prior to generation and requires DOE’s pre-authorization if waste with no disposal path must be generated. Although DOE M 435.1-1 Chg. 3 only addresses radioactive waste, it is LANL policy that generating organizations must request and receive DOE written approval to generate any waste that does not have a disposal path BEFORE the waste is generated.

As described in FSD-P409-0100, *Waste Planning*, LANL waste generators must work with their WMCs and EPC-WMP to submit a request to generate waste with No Disposal Path to the EPC Division Office (EPC-DO), who will initiate a formal request to the DOE Los Alamos Field Office. The request to generate waste streams with no disposal path, at a minimum, must address:

- Programmatic need to generate the waste,
- Characteristics and issues preventing the disposal of the waste,

- Safe storage of the waste until disposal can be achieved, and
- Activities and plans for achieving final disposal of the waste.

DOE approval of the request to generate waste without a disposal path may come with action requirements for LANL, such as requirements to develop an action plan or to create a treatment and/or disposal path and may require concurrence and funding from the program sponsor.

See FSD-P409-0100, *Waste Planning*, and AP-P409-0101, *Difficult Waste Streams*, for more information.

5.2 Waste Generation

Waste is any material that is discarded or abandoned, meaning material that is thrown away, destroyed, released into the environment or not put to use. Material that is recycled for reuse is generally not considered to be waste. State and federal statutes and regulations define “waste” as “solid waste.” Those same statutes and regulations define the term “solid waste” very broadly to include solids, semi-solids, liquids and contained gases. For Laboratory personnel, though, waste, or solid waste, means any garbage, refuse, sludge, waste-like material, or other abandoned or discarded solid, liquid, semisolid, contained gaseous material resulting from Laboratory activities. This means that any equipment or other material is thrown away, discarded, spent, spilled, released into a drain, or abandoned in storage is a waste. Obsolete chemicals in storage that are no longer usable and that cannot be recycled or reclaimed are also considered to be wastes. In addition, materials that can no longer be used for their intended purpose can be considered “spent” which also qualifies as a “waste.”

Guiding Principle

All waste will have a documented hazardous waste determination at the point of generation before any dilution, mixing, or other alteration of the waste occurs. All waste will be categorized and managed in a manner consistent with that determination.

So, when does something become a waste? In the regulations, a material becomes a waste at the “point of generation.” This concept is explored in Section 5.2.3 below.

Who decides that something is a waste? Process personnel typically decide that something is a waste. When that happens, the process personnel become *Waste Generators*. However, there are instances when the point of waste generation is reached without process personnel making a specific decision. In those instances, the waste is subject to this policy, even if the waste generator disagrees.

There also will be instances where waste generation is a collaboration between several personnel or organizations. This is discussed in Section 5.2.4 below.

5.2.1 Who is a Waste Generator at LANL?

As a *Waste Generating Facility*, the Laboratory is responsible for everything that is or has ever been disposed of as a result of its activities. Outside regulators (such as the NMED, DOE, and the U.S. Environmental Protection Agency) focus on LANL as a single facility. In addition, the Laboratory is responsible for responding to any problems related to our waste (even after disposal) if those problems are directly related to errors made in how we implement our waste management program. The Laboratory’s ownership and responsibility for waste extends to wastes generated by subcontractors performing work on our behalf.

Work is performed by individuals within various organizations at the Laboratory. When that work creates waste, then the organization becomes a *Waste Generating Organization* for purposes of this policy. Waste generating organizations are responsible for planning and conducting their work while also ensuring proper waste management. Personnel (including subcontractors) who perform waste generating work for an organization must be properly trained and qualified on both the work to be performed and the waste management aspects of the work. These individuals will be referred to as *Process Personnel* in this document.

Within the Laboratory, anyone who throws material away, destroys it, releases it into the environment, or decides that it is not going to be used is a waste generator. The individuals making these decisions are normally process personnel and/or front-line managers who are closest to the work activity. They are individuals who are actively engaged in or are actively overseeing waste generating work activities. Specific job titles for these individuals will vary between different organizations. However, they are typically process personnel such as supervisors, workers, project managers, construction managers, maintenance managers, team leaders, program leaders, researchers, chemical owners, and principal investigators. Process personnel who are waste generators must be assigned to and maintain the training curricula listed in Section 6.0 below.

For work that is being subcontracted, it is the responsibility of the requesting manager, Project Manager, and Subcontract Technical Representative to identify and assign the Waste Generator role to the appropriate LANL process personnel. Potential subcontractors must be informed of the anticipated waste associated with a project by including a completed Waste Characterization Strategy Form (WCSF) or waste certification statement in the requisition package. See FSD-P409-0301, *Waste Characterization Strategy Form Preparation*, for instructions on completing these documents.

Note:

Individual chemical owners are responsible for determining if their chemicals can and will be used. Any chemicals that cannot or will not be used must be managed as waste.

The subcontractors are responsible for following the requirements set forth in their contractual agreements (subcontracts), including the scope of work and all attachments, exhibits, and/or addenda. This applies to lower-tier subcontractors as well. LANL is the owner of any waste generated by a subcontractor.

5.2.2 What Does a LANL Waste Generator Have to do?

Process personnel who generate waste have six specific responsibilities. They must:

- Plan their work and how they are going to manage the waste (see Section 5.1);
- Characterize their waste by providing accurate descriptions of the chemical, radiological, biological, security, and physical attributes of the waste and by providing a detailed and accurate description of the process that created the waste (see Section 5.3).
- Make a documented waste determination at the point of generation prior to diluting, mixing, or otherwise altering the waste (see Section 5.4);
- Follow WMC or NPI directions to properly package and label their waste (see Section 5.5);
- Follow WMC or NPI directions to properly store their waste (see Section 5.6); and
- Maintain their training (see Section 6.0).

LANL's EWP organization deploys trained WMCs or NPI AK personnel to every facility and/or generating organization to support process personnel and to direct waste management activities for each work activity. WMCs and NPI AK personnel are trained in the regulatory nuances of waste management and provide that service for their customers. NPI personnel also act as waste generators for TRU and MTRU wastes.

Any person who generates a waste must make a "waste determination" at the "point of generation." The waste determination must be made before any dilution, mixing, or other alteration of the waste occurs. Waste determinations are formally documented on Waste Stream Profiles (WSPs) in the Laboratory's Waste Compliance and Tracking System (WCATS) as described in Section 5.4 below. If waste is generated before a WSP is approved in WCATS, waste generators must still document their waste determination at the point of generation.

See FSD-P409-0200, *Waste Generation*, for specific requirements related to generating waste and fulfilling waste generator responsibilities.

5.2.3 What is the Point of Generation?

As stated above, process personnel must make a waste determination at the point of generation before any dilution, mixing, or alteration of the waste occurs. So, what is the point of generation? In a nutshell, it is whenever anyone who throws material away, destroys it, releases it into the environment, or decides that it is not going to be used. Here are some examples of points of generation at LANL:

- Whenever something gets discharged to a wastewater treatment facility (such as LANL's Sanitary Wastewater System or the Radioactive Liquid Waste Treatment Facility);
- When the material becomes "spent" and can no longer be used for its intended purpose without reprocessing it;
- When a decision is made that a chemical or material cannot or will not be used for its intended purpose and will be discarded;
- When a treatment residue exits a treatment unit, including reject water from a water treatment unit;
- When a sludge is deposited in a container, tank, etc.;
- When a residue exits a unit that is otherwise exempt from waste regulations (such as a recycling unit or wastewater treatment unit);
- When a solid waste is mixed with a listed hazardous waste, regardless of whether it was intentional or not;
- When a material has been spilled and is not recoverable for use;
- When construction or demolition is created by room or building construction, renovation, or demolition;
- When spent batteries or light bulbs are removed from service;
- When a material is abandoned (including abandonment in storage);
- When personnel leave the Laboratory or change positions and their materials are no longer needed; or
- When a decision is made that a nuclear material cannot or will not be recovered for reuse and will be discarded.

Some sanitary wastewater (such as from bathrooms, portable toilets, and cafeterias) is exempt from this policy. However, industrial wastewater (such as cooling tower water, boiler blowdown, etc.,) that is released to LANL's Sanitary Wastewater System is subject to this policy. See P409-1, *LANL Waste Acceptance Criteria* for information).

See FSD-P409-0200, *Waste Generation*, for a more detailed discussion of points of generation.

5.2.4 Collaborative Waste Generation

There are situations that involve more than one organization or individual in generating a waste. For example, process personnel may determine that a material with special nuclear material is spent and is no longer usable. However, the material does not become a waste until after another organization performs certain tests to determine if the special nuclear material can be recovered. In this instance, the process personnel and the personnel who review the additional data are co-waste generators and both groups are responsible for contributing to the waste characterization effort (Section 5.3).

Likewise, work may be subcontracted to an organization outside of LANL. This frequently occurs for construction, renovation, maintenance, or demolition projects. In these instances, subcontracted process personnel and LANL subcontract oversight personnel are co-waste generators and contribute to waste characterization (Section 5.3) and other waste management activities. In subcontracted work, however, LANL employees sign waste documentation as the owner and waste generator.

Guiding Principle

The physical, chemical, radiological, biological, and security nature of each waste will be documented at the point of generation before any dilution, mixing, or other alteration of the waste occurs. Such documentation will be valid and legally defensible.

5.3 Waste Characterization and Compatibility

In order to complete a waste determination, process personnel must first characterize the waste with WMC and/or NPI assistance. "Waste characterization" is the process of determining and documenting the chemical, physical, radiological, biological, and security attributes of the waste.

Process personnel must provide accurate, complete, and up-to-date information about their waste to their assigned WMC or NPI AK personnel and assist in entering that information into WCATS. Characterization information includes *Acceptable Knowledge* (list of materials used, products or by-products from an activity, analyses of similar wastes, Safety Data Sheet information, known or expected contaminants, etc.) and/or *Analytical Data* that accurately describes the waste.

Proper waste characterization is the most critical aspect of waste management. Waste cannot be safely handled, stored, treated, disposed of, or transported without a complete understanding of the physical, chemical, and radiological aspects of the material. Waste characterization determines:

- Safety and health hazards associated with the waste;
- Compliant packaging, labeling and transportation requirements;
- Compliant waste management (i.e., treatment, storage and disposal of the waste);
- Potential incompatible chemical reactions between materials, waste containers, and/or co-located wastes;

- Requirements for transporting, treating, and disposing of the waste; and
- The facilities that can accept the waste for storage, treatment, and/or disposal.

Waste characterization must be documented in order to be valid and must be maintained for review by auditors, and state and federal inspectors. As discussed below, LANL meets this requirement by keeping Waste Stream Profiles and associated documentation in WCATS.

Every worker at the Laboratory is responsible for knowing his/her WMC and communicating waste issues to his/her WMC. Moreover, every worker is responsible for providing chemical, radiological, physical, and security information to the WMC upon request. WMCs will document waste characteristics as described below and in various FSDs. Process personnel are responsible for verifying the accuracy of waste characterization information and for signing WCATS waste stream profiles as the LANL Waste Generator before the waste is generated.

For TRU and MTRU, workers are responsible for communicating waste issues and chemical, radiological, physical, and security information to their NPI AK personnel. The NPI AK personnel will document the waste characteristics. The Central Characterization Program (CCP) is responsible for providing radiological characterization information that is used to certify waste for disposal in WIPP. Process personnel are responsible for providing radiological characterization information used for Nuclear Material Control and Accountability, Criticality Safety, and compliance with Technical Safety Requirements.

All process personnel are responsible for understanding the Waste Stream Profiles that they are working under and for maintaining training per Section 6.0.

See the following Functional Series Documents for specific waste characterization requirements and processes:

- FSD-P409-0300, *Waste Characterization and Compatibility*;
- DOE/WIPP-02-3122, *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Project* (in the Electronic Documents and Records Management System [EDRMS]);
- PA-AP-01146, *Acceptable Knowledge Documentation Procedure* (in EDRMS);
- FSD-P409-0301, *Waste Characterization Strategy Form Preparation*;
- FSD-P409-0302, *Site Characterization for Construction, Renovation, and Demolition*; and
- AP-P409-0303, *Waste Sample and Analysis Plan Procedure*.

5.3.1 Re-Characterization

Personnel should never assume that routinely generated wastes only have to be characterized once. Process personnel are expected to review and validate their waste characterization information at least annually to ensure that it is accurate and up-to-date. Further, State and Federal regulations require process personnel to re-characterize the waste whenever there is reason to believe that the process or operation generating the waste has changed or an off-site facility indicates that the waste received does not match the shipping manifests. Process personnel that re-characterize their waste must document these efforts to ensure that it is valid and can be reviewed by auditors, or state and federal inspectors.

At the Laboratory, process personnel must re-characterize their waste whenever:

- There is a change to the waste generating process;
- There is a change to material inputs or suppliers;

- The process owner changes;
- Process authorization documentation is revised;
- Material formulations are revised;
- When the waste stream profile reaches its usable limit;
- The waste has been treated to change a chemical, biological, physical, or radiological aspect;
- There is a significant change to waste management regulations or requirements;
- The waste is repackaged, and secondary materials are added to the container; and/or
- There is a process upset, spill or another abnormal event.

See FSD-P409-0300, *Waste Characterization and Compatibility*, for details.

5.3.2 Special Concerns for Transuranic Waste Characterization

Some LANL operations generate radioactive waste that contains 100 nanocuries (3700 Becquerels) or more of alpha-emitting transuranic radioisotopes per gram of waste. These radioisotopes generally have half-lives greater than 20 years. Unless these wastes meet certain exceptions, they are categorized as Transuranic (TRU) waste. TRU wastes that also are hazardous wastes are called Mixed TRU (MTRU) wastes. TRU and MTRU wastes are disposed of in the Waste Isolation Pilot Project (WIPP) facility pursuant to WIPP's RCRA Permit. There are specific requirements that must be met before Laboratory personnel will be authorized to generate or manage TRU or MTRU waste. These requirements can be found in DOE/WIPP-02-3122, *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant*, PA-AP-01146, *Acceptable Knowledge Documentation Procedure*, and TA55-RD-539, *TA-55 FOD Waste Management Requirements*.

NPI-DO provides AK Specialists to work with process personnel to properly document Acceptable Knowledge associated with TRU and MTRU waste. AK specialists provide waste documentation to CCP, who characterizes and certifies transuranic (TRU) and mixed transuranic (MTRU) waste destined for the WIPP in accordance with the WIPP Waste Analysis Plan and the WIPP WAC. CCP is a Nuclear Waste Partnership, LLC, program contracted through the National TRU Program at the DOE Carlsbad Field Office. Program interfaces and roles, responsibilities, authorities, and accountability (R2A2) are described in CCP-PO-012, *CCP/Triad National Security LLC at Los Alamos National Laboratory (LANL) Interface* document.

CCP provides services related to characterization and certification of waste to the WIPP WAC that consist of acceptable knowledge compilation and reporting, data generation, project level validation and verification, records management, and document control. LANL TRU and MTRU waste generators must comply with P409 for all aspects of LANL cradle-to-grave management of waste leading up to its transfer to CCP for final certification and WIPP disposition. Moreover, LANL TRU and MTRU waste generating organizations are required to fulfill their responsibilities as outlined in the CCP-PO-012, *CCP/Triad National Security LLC at Los Alamos National Laboratory (LANL) Interface* Document.

5.3.3 Waste Verification

LANL performs independent waste characterization and verification sampling and analysis on an annual basis for a random set of waste streams. This verification sampling meets Section 2.4.7, *Waste Characterization Review*, of the *LANL Hazardous Waste Facility Permit*, as well as verification requirements of DOE M 435.1-1 Chg. 3, *Radioactive Waste Management Manual*. In addition, CCP provides waste verification for TRU and MTRU waste destined for WIPP. See AP-P409-0307, *Waste Verification*, for more information.

5.4 Waste Determination and Categorization

Process personnel collaborate with their WMC or NPI AK personnel to develop a Waste Stream Profile (WSP) in WCATS that summarizes and documents the waste characterization information. It is recommended to complete a WSP before the waste is generated.

The Laboratory's waste management personnel will review each WSP and classify the waste into different waste categories, each of which has its own packaging, storage, treatment and/or disposal requirements. This process is called a "Hazardous Waste Determination" and is required by State and Federal statutes and regulations. These regulations also require that the hazardous waste determination be documented in order to be valid.

Typical LANL waste categories include:

- Municipal Solid Waste;
- New Mexico Special Waste;
- Universal Waste;
- Hazardous Waste;
- Nonhazardous Waste;
- Low-level Radioactive Waste;
- Mixed Low-level Radioactive Waste (both hazardous and low-level radioactive);
- Transuranic Waste;
- Mixed Transuranic Waste (both hazardous and Transuranic);
- Sanitary Wastewater;
- Polychlorinated Biphenyl Waste;
- Classified Waste;
- Orphan/Legacy Waste;
- High Explosives Contaminated Wastewater;
- Low-level Radioactive Wastewater; and
- Transuranic Wastewater.

By law, waste characterization documentation must be maintained and be made available to state and federal officials upon request. At LANL, we meet this requirement by keeping Waste Stream Profiles and associated documentation in WCATS.

For unplanned waste that must be generated before a WSP is created, process personnel and WMCs (or NPI AK personnel for TRU or MTRU) are required to make a preliminary waste determination and categorization for any wastes that are generated before a waste stream profile is completed. Waste is to be managed according to the preliminary waste determination until the Waste Stream Profile is approved and activated, at which time the process owner and WMC (or NPI for TRU or MTRU) must immediately begin managing the waste per the determination and category identified on the profile (if it is different from the preliminary waste determination).

Guiding Principle

All waste will have a documented hazardous waste determination at the point of generation before any dilution, mixing, or other alteration of the waste occurs. All waste will be categorized and managed in a manner consistent with that determination.

See FSD-P409-0400, *Waste Determination and Categorization*, for specific requirements and processes associated with this process.

5.5 Waste Packaging

Except for wastewater piped directly to a treatment facility or National Pollutant Discharge Elimination System (NPDES)/NMED Groundwater permitted or authorized outfall, all waste must be packaged to meet the U. S. Department of Transportation requirements for shipping waste in commercial transit. Waste

packagings frequently include containers such as drums or waste boxes, but may also include configurations that are not containers (such as palletized and plastic wrapped equipment). All waste containers or packages must be closed or covered except when adding, removing, or consolidating the waste. In addition, all waste containers and packages must be labeled (using weather-resistant labels) to communicate their contents and hazards. Once waste is placed into a DOT shippable container or package, that container/package should be entered into WCATS within three business days.

Guiding Principle
All waste will be safely and compliantly packaged, stored and transported.

See the following documents for specific requirements relating to container procurement, container selection, and proper container closure, labeling, and marking:

- RD-P409-0202, *LLW/MLLW Procurement Requirements*; and
- AP-P409-0702, *Weighing and Final Closure of Waste Packages for Transportation*.

5.5.1 Certifying Waste Packaging

Radioactive waste destined for NNSS requires independent certification of the waste package and its closure process before it can be shipped and accepted by a receiving facility. LANL has established a certification program to ensure that all NNSS-destined radioactive waste is properly packaged, and meets the NNSS WAC prior to shipment.

See EPC-WMP-QAP-200, *Los Alamos National Laboratory Waste Certification Quality Assurance Plan (QAP)*, for specific requirements.

5.5.2 Container Requirements

Waste packages or containers must be in “good condition,” meaning not deteriorating defined as cracked, corroded, severely rusting or with apparent defects that could result in leaking or spilling (i.e., dents, holes or bulges). Waste stored in deteriorating containers must be transferred to a container in good condition.

Containers must also be clearly marked or labeled, meaning that markings are legible and conspicuous enough to be easily readable for audits or inspections by state or federal regulators. Once waste is placed into a DOT shippable container or package, that container/package should be entered into WCATS within three working days.

5.6 Waste Accumulation and Storage

The safe accumulation and storage of waste is essential to the Laboratory’s mission. After ensuring that a waste is safely packaged, it must be placed in a location that meets the following criteria:

- Is appropriate for the waste type per FSD-P409-0600, *Waste Accumulation and Storage*;
- Is registered with EPC-WMP (unless noted as exempt in FSD-P409-0600, *Waste Accumulation and Storage*);
- Has an appropriate sign posted describing the type of waste being stored;
- Is able to be inspected;
- Is under the control of process personnel and WMC (or NPI for TRU or MTRU);
- Will control any waste that spills or leaks; and
- Is protected from traffic or inadvertent damage.

Table 2 shows the types of waste storage areas used at LANL. See FSD-P409-0600, *Waste Accumulation and Storage*, for specific requirements pertaining to waste accumulation, storage, and staging areas.

5.6.1 Inspecting Waste in Accumulation and Storage Areas

Waste in storage should be inspected routinely to verify that the containers are:

- Are in “good condition;”
- All required labels and markings are present and readable; and
- There are no leaks or spills (see Table 2).

Some waste storage areas are required to be inspected at certain frequencies by law. As a Best Management Practice, the Laboratory recommends waste generators, WMCs, or NPI personnel to inspect all waste storage areas at least monthly. See FSD-P409-0600, *Waste Accumulation and Storage*, for specific inspection requirements.

Table 2. LANL Waste Storage Area Descriptions		
Waste Area Type	Description	Inspection Frequency
Satellite Accumulation Area (SAA)	An accumulation area for hazardous or mixed waste, under the control of the generator, and located to serve an active process that generates waste. Volumes may not exceed 55 gallons or, for acutely hazardous wastes, 1 quart of liquid or 1 kilogram (2.2 pounds) of solid.	Monthly*
Central Accumulation Area (CAA)	An accumulation area where hazardous or mixed waste may be stored for up to 90 days without a permit.	Weekly
Universal Waste Area (UWA)	An accumulation area specific to universal wastes, which include certain types of batteries, pesticides, thermostats, lamps, mercury-containing equipment and aerosol cans. Waste must be removed within 1 year.	Monthly*
New Mexico Special Waste Storage Area	A storage area for solid wastes with unique handling, transportation, or disposal requirements to ensure the protection of the environment and the health, welfare, and safety of the public. This includes asbestos waste, sludge, petroleum-contaminated soil, and treated formerly characteristic waste. Waste must be removed within 90 days.	Monthly*
Polychlorinated Biphenyl (PCB) Storage Area	A location established for the storage of items contaminated with PCBs. If the area is designated as Temporary, then waste must be removed within 30 days. Otherwise, waste must be removed within 90 days.	Monthly

Table 2. LANL Waste Storage Area Descriptions

Radioactive Waste Staging Area	A location established for staging low-level or TRU radioactive waste. Waste can be added to containers in a staging area. Waste must be removed within 90 days once the container is full, closed, and sealed. Waste must be moved to a registered Radioactive Waste Storage Area or transported to a DOE authorized offsite disposal facility.	Daily** Monthly
Radioactive Waste Storage Area	A location established for storing low-level or TRU radioactive waste. Each waste container is certified as being closed and ready for offsite shipment. Waste cannot be added to containers in a storage area. Waste must be removed within 1 year.	Monthly
Used Oil Area (UOA)	An area established for storage of used oil intended for recycling.	Monthly*
Permitted Waste Storage Areas	An area for the storage of hazardous or mixed waste that is included in LANL's Hazardous Waste Facility Permit. Storage of waste in these units must meet the requirements of LANL's Hazardous Waste Facility Permit. Waste must be removed within 1 year.	Daily** Weekly
Solid Waste Storage Areas	An area for the storage of construction and demolition (C&D) waste. Waste must be removed within 1 year.	Monthly*
*This is a Best Management Practice assessment not a regulation required inspection. **Daily inspections are required when adding, removing, treating, or moving waste.		

5.6.2 Important Dates

Storing waste for an excessive amount of time frequently leads to container degradation, spills/leaks, and lost waste characterization information. To prevent these and other negative outcomes, regulatory agencies have placed time limits on waste storage. LANL meets these requirements by ensuring that shippable waste containers and packages are entered into WCATS within three working days of starting to place waste into the containers/packages. This allows Laboratory personnel to correctly track time limits and ensure compliant transport, treatment, and disposal of the waste in question. Table 3 lists these dates, along with their implications.

Guiding Principle

A comprehensive and accurate inventory of waste containers packaged for shipment will be maintained real-time in the Laboratory's Waste Compliance and Tracking System (WCATS).

Table 3. Dates Related to LANL Waste Management

Date	Description	Implications	Critical Actions
Origin Date	Date the waste container or item is created in WCATS.	Container is officially in the WCATS inventory.	If created prior to waste generation, WMC must track containers to ensure waste is added.
Accumulation Start Date (ASD)	Regulatory date associated with waste placed in CAA, permitted Treatment, Storage, and/or Disposal Facility (TSDF), or UWAs.	CAA, TSDF, UWA time limits are related to the ASD. If wastes with different ASDs are consolidated into one container, the earliest ASD applies to the new container.	Move waste from CAA to a TSDF within 90 days of ASD. Move waste from UWA within 1 year of ASD. Move waste from TSDF within 1 year of ASD. Request NMED approval to exceed 1 year in TSDF if necessary.

Table 3. Dates Related to LANL Waste Management			
		A new ASD is required when a container is moved from a CAA to a TSDF. The date the waste container is accepted by the TSDF is the new ASD.	If mixed low-level (MLLW) or MTRU, add container to Site Treatment Plan if container will exceed 1 year in TSDF.
Closed Date (CD)	Regulatory date associated with waste placed in NM Special or radioactive waste storage areas. For NM Special waste, the date the waste container is deemed full and placed into storage. For radioactive waste, the date the waste container is full, closed, and a tamper indication device is attached.	Radioactive waste area and NM Special waste area time limits are associated to the CD.	Move waste from NM Special Waste Area within 90 days of CD. Move waste from Rad Staging Area within 90 days of CD. Move waste from Rad Storage Area within 1 year of CD.
Out of Service Date (OSD)	Regulatory date associated with waste is placed in PCB waste storage areas.	PCB waste area time limits are associated to the OSD.	Move waste from Temporary PCB Waste Area within 30 days of OSD. Move waste from General PCB Waste Area within 90 days of OSD.

5.6.3 *Inventorying Waste Containers*

The Laboratory's Hazardous Waste Facility Permit requires that waste descriptions, storage descriptions, and storage dates be maintained in the Facility Operating Record. Other regulations require similar information be kept for other waste types. In addition, many wastes are subject to specific time limits for storage. The Laboratory cannot demonstrate compliance with these requirements unless it maintains an accurate, real-time waste inventory of all the waste containers onsite.

See FSD-P409-0600, *Waste Accumulation and Storage*, for specific requirements and processes for maintaining an accurate inventory at each type of registered waste storage area. Waste shipping and treatment activities also affect inventories at various locations. Requirements and processes for those activities are in TP-P409-0700, *On-Site Waste Management Field Tasks*, TP-P409-0701, *Preparing and Shipping Waste/Material Off-Site*, and FSD-P409-0800, *Waste Treatment Decision Making*.

5.6.4 *Permitted Storage of Hazardous Waste*

Some LANL facilities that store hazardous waste, mixed low-level waste (MLLW), and MTRU are included in and subject to the requirements of the Laboratory's Hazardous Waste Facility Permit. This permit has specific requirements for container storage, including for aisle spacing, permitted unit boundary designations, timely maintenance, training, and inspections. All work in these

permitted facilities (including maintenance, facility renovation, process changes, and new buildings) must be reviewed to ensure that it complies with Permit requirements. Some work or changes may require Permit modifications to be submitted to and approved by the New Mexico Environment Department before the work can be performed or the change implemented. All managers and workers in permitted units must be aware of, comply with, and enforce Permit requirements.

See the LANL Hazardous Waste Facility Permit to identify affected facilities and to see specific waste storage requirements. Note that the requirements identified in this policy document P409, and its implementing procedures continue to apply in addition to those found in the Permit.

5.6.5 Radioactive Waste Management Basis

Per DOE O 435.1 Chg 2, *Radioactive Waste Management*, LANL is required to provide documentation that controls have been developed, are in place, and are properly implemented for the management of radioactive waste so as to provide near-and-long-term protection of the public, workers, and the environment. This is accomplished through the Laboratory's Radioactive Waste Management Basis (RWMB) program. The RWMB program applies to mixed waste (MTRU and MLLW) in addition to waste that is only radioactive (TRU and LLW).

All facilities that generate, manage and store radioactive wastes must have an approved RWMB. Facilities are required to identify their operations and the radioactive waste they will generate (historical, current and future waste generation), report changes in their facility or waste status (i.e., adding storage areas, increasing waste volumes, etc.) and request a storage extension if it is foreseen that low level radioactive waste cannot be shipped for final disposition within 1 year of the closed date for the waste container. To meet this requirement and to document RWMB requests, Facility Operations Directors, Responsible Line Managers, or their designees complete Form 2107, Radioactive Waste Management Basis Report Form, for review and approval by DOE. The Environmental Protection and Compliance Division is responsible for ensuring compliance of the RWMB program.

See FSD-P409-0601, Radioactive Waste Management Basis Submittal Process, for specific requirements.

5.6.6 Site Treatment Plan

Some MLLW and MTRU cannot be moved to a final disposal within one year of being placed into permitted waste storage. This may be due to a number of issues, such as needing a specialized container before being able to transport the waste offsite, having constituents in the waste that are prohibited from transport, inability to treat the waste to meet appropriate Land Disposal Restrictions, or delays in processing the waste to meet disposal facility acceptance criteria. The Federal Facilities Compliance Act requires federal facilities to develop a plan for the removal of mixed waste that must be stored longer than one-year. The Laboratory implements this requirement through a Federal Facility Compliance Order and the LANL Site Treatment Plan (STP). The STP summarizes the status of the stored mixed waste inventory (MTRU and MLLW), describes the progress being made to dispose of the STP inventory, identifies treatment and disposal options for addressing the STP inventory, and provides overall schedules for management and disposition of the mixed waste.

WMCs, NPI, and LANL TSF personnel are required to track their mixed waste inventory and ensure that containers that cannot be shipped offsite within one year have appropriate justifications for why the containers require extended storage. Specific actions to be taken to facilitate off-site treatment and disposal of STP containers and waste streams are addressed

through the Laboratory's Difficult Waste Strategy. When necessary, individual containers are automatically added to the STP via WCATS.

All waste treatment **MUST** be pre-approved by EPC-WMP before it is authorized to start.

5.6.7 Authorized Users

At LANL, when an owner of a registered waste accumulation or storage area grants permission to other process personnel to use his or her registered waste area, the personnel who have been granted access are called *Authorized Users*. The waste area owner and the authorized users have joint responsibility for compliant use of the waste area.

5.7 Waste Transportation

All waste shipped between locations in the Laboratory or offsite from the Laboratory, whether by subcontract or internal personnel, must be documented on a Waste Disposition Request (WDR) or Transuranic Waste Storage Record (TWSR), with the sole exceptions being:

- Municipal waste dumpsters and end dumps routinely picked up by LANL and taken to the Los Alamos County Eco Station; and
- Liquid wastes with approved Waste Stream Profiles that are piped to an onsite liquid waste treatment facility.

For waste other than TRU or MTRU, once waste has been adequately characterized, packaged, and labeled, the WMC will submit a WDR in WCATS to request waste transport to either an onsite or offsite facility. For TRU and MTRU waste, TRU waste shipping personnel will submit a TWSR in WCATS to request waste transport to either an onsite TSF or to WIPP. All waste transported onsite or offsite must meet U.S. Department of Transportation requirements for the material being transported or have an appropriate exemption. Completing the WDR or TWSR ensures that waste containers are tracked in WCATS from initial storage through ultimate disposal. WM-WMS and NPI maintain an inventory of ready-to-use containers, vehicles, personnel, and other resources necessary to provide rapid container deployment to waste generators and efficient removal of filled waste containers.

See the following documents for waste handling and shipping requirements and processes:

- TP-P409-0700, *On-site Waste Management Field Tasks*
- TP-P409-0701, *Preparing and Shipping Waste/Material Off-Site*
- AP-P409-0702, *Weighing and Final Closure of Waste Packages for Transportation*
- AP-P409-0704, *Process for Review of Radionuclide Values for LANL Waste Prior to Shipment*

5.8 Waste Treatment Prior to Disposal

Hazardous waste and MLLW must be treated to meet applicable Land Disposal Restrictions before they can be disposed of in a hazardous waste landfill. Treatment, when applied to hazardous waste or the hazardous components of mixed waste, is any method, technique, or process that is designed to change the physical, chemical, or biological character or composition of the waste so as to:

- Neutralize it;
- Recover energy from it;
- Recover valuable metals or materials from it;
- Render it nonhazardous or less hazardous;
- Make it safer to transport, store, or dispose of;
- Reduce its volume; or
- Make it more amenable for recovery, storage, or disposal.

All waste treatment **MUST** be pre-approved by EPC-WMP before it is authorized to start.

At LANL, all waste treatment must be pre-approved by EPC-WMP personnel and treatment facility personnel must review characterization data to verify that waste meets the appropriate acceptance criteria before treatment is authorized. Some hazardous waste treatment must be approved by NMED, and included in the Laboratory's Hazardous Waste Facility Permit. EPC-WMP review and approval will identify which treatment activities require NMED approval and which do not.

Table 4 shows some of the hazardous waste treatments that are allowable at LANL. Note that dilution of a hazardous waste as a substitute for adequate treatment is illegal and never allowed at LANL. See FSD-P409-0800, *Waste Treatment Decision Making*, to request authorization to perform waste treatment.

Table 4. Examples of Allowable Hazardous Waste Treatment at LANL		
Activity	Requirements	Locations
Elementary Neutralization	Only applicable to corrosive wastes (D002). Requires PRID and EPC-WMP authorization.	Only in a tank, container, or transport vehicle.
Absorption	Adding absorbent to a hazardous waste, Absorbent must be compatible with the waste and container. Requires PRID and EPC-WMP authorization. Biodegradable absorbents are prohibited. Note: Adding absorbents constitutes treatment and requires a permit. However, this practice can be exempt and undertaken without a permit only if the absorbent material is added to the container of waste at the point of generation and at the same time the waste is first placed into a container. Adding absorbent while re-containerizing the waste is treatment.	Only in containers. When absorption requires a permit, it may only be performed in locations described in LANL's Hazardous Waste Facility Permit.
Stabilization in Tanks	Requires a PRID. Must comply with LANL's Hazardous Waste Facility Permit. Process changes require a Permit modification.	In locations as described in LANL's Hazardous Waste Facility Permit.
Burning or Detonation	Must comply with LANL's Hazardous Waste Facility Permit or interim status requirements. Process changes require a Permit modification. Is not eligible for generator waste treatment in a CAA.	In locations listed in LANL's Hazardous Waste Facility Permit.
Stabilization in Containers	Must comply with LANL's Hazardous Waste Facility Permit. Process changes require a Permit modification.	In locations listed in LANL's Hazardous Waste Facility Permit.

5.8.1 Permitted Hazardous Waste Treatment

Some LANL facilities that treat hazardous waste, MLLW, and MTRU are included in and subject to the Laboratory's Hazardous Waste Facility Permit. This permit has specific requirements for waste treatment, including recordkeeping, treatment process, and verification sampling. All treatment processes in these permitted facilities must be reviewed to ensure that they comply with Permit requirements. Changes to treatment processes and materials require permit modifications to be submitted to and approved by the New Mexico Environment Department before the change is implemented.

All managers and workers in areas subject to the LANL Hazardous Waste Facility Permit must be aware of, comply with, and enforce Permit requirements. See the LANL Hazardous Waste Facility Permit to identify affected facilities and to see specific waste-treatment permit requirements. The requirements identified in this document and its implementing procedures continue to apply in addition to those found in the Permit.

5.8.2 Other Waste Treatment

Although treatment of hazardous waste, MLLW, or MTRU are included in and subject to the Laboratory's Hazardous Waste Facility Permit, treatment of nonhazardous or non-mixed waste may be allowable at the Laboratory. For example, size reduction for radioactive wastes or uncontaminated construction debris can be performed if the work is authorized and performed safely. As an additional example, wastewater treatments at the TA-50 Radioactive Liquid Waste Treatment Facility, TA-03 Sanitary Effluent Recycling Facility and the TA-46 Sanitary Wastewater plant are subject to the NPDES and NMED regulations and permit/authorization requirements for wastewater.

Follow the directions shown in FSD-P409-0800, *Waste Treatment Decision Making*, to request authorization to perform nonhazardous waste treatment and to verify that the treatment process is not subject to the Laboratory's Hazardous Waste Facility Permit.

5.9 Waste Disposal

LANL is not permitted or allowed to dispose of waste onsite and almost all of LANL's waste eventually ends up in an offsite landfill. By sending certified and compliant waste to offsite TSDFs for permanent isolation and disposal, the Laboratory minimizes risk of the release and spread of contamination and exposure to workers, the public, and the environment. Disposal facilities are designed and permitted to isolate waste to prevent chemical and/or radioactive contamination from harming the public or the environment. Each disposal facility is only authorized to accept a limited range of waste that meets specific physical, chemical, radiological and security requirements. These requirements are referred to as Waste Acceptance Criteria (WAC).

Wastes that do not meet any facility's WAC must stay at LANL and can be expensive to manage. All the activities described in this document and its implementing procedures are designed to ensure that work is effectively planned and executed so that the resulting wastes meet an offsite facility's WAC and can be shipped for treatment or disposal.

See RD-P409-0900, *LANL Subcontractor Waste Disposal Requirements*, for more detailed requirements.

5.9.1 Radioactive Waste Disposition

TRU and MTRU waste must be sent to WIPP for disposal. For Low-Level and Mixed Low-Level radioactive waste, DOE Order 435.1 Chg. 2, *Radioactive Waste Management* requires the waste to be disposed of at NNSS. For LLW/MLLW not destined to be disposed of at NNSS, waste

generators must submit an exemption request per FSD-P409-0905, *DOE O 435.1 Exemption Request* or verify an approved exemption is in place.

See the following documents for specific requirements related to radioactive waste disposal:

- FSD-P409-0201, *Radioactive Waste Management*
- RD-P409-0202, *LANL NNSS Waste Certification Program LLW/MLLW Procurement Requirements*
- FSD-P409-0901, *Authorized Release Limits Proposal Process*
- FSD-P409-0905, *DOE O 435.1 Exemption Request*
- TA55-RD-539, *TA-55 FOD Waste Management Requirements*.

5.9.2 Land Application of Environmental Media

Environmental media (such as soil, groundwater, drill cuttings, sediment, etc.) is not technically a waste, but environmental media that has substantial contamination becomes a waste during cleanup activities. When the environmental media is below established cleanup standards and risk levels, the media is often left on-site or re-applied at an approved location as long as doing so also meets other applicable regulatory requirements (such as NM Waste Quality Control Commission requirements and standards). The processes for characterizing and evaluating environmental media for land application on LANL property are described in the following procedures:

- FSD-P409-0902, *Land Application of Drill Cuttings*;
- EPC-CP-QP-1005, *Land Application of Groundwater*; and
- FSD-P409-0904, *On-site Reuse of Environmental Media from Excavation, Construction, and Demolition Activities as Administratively Controlled Fill*.

Each of these procedures requires an Excavation Permit, which allows a broader environmental review of regulatory requirements.

5.10 Waste Documentation

LANL is committed to maintaining an accurate and complete operating record of its waste management activities. We do this by uploading waste characterization, location information and other documentation into WCATS. Other records are maintained in EDRMS, the Environmental Information Management System (EIM), and in electronic and physical public reading rooms.

Table 5 lists common documents that are included in the operating record. Many of the documents or data items are required by external stakeholders (e.g., EPA, NMED, Department of Transportation, DOE) while others are established as LANL Policy.

See AP-P409-1000, *Facility Operating Record Requirements for Waste Documentation*, for a complete list of waste management documents, retrieval locations, and requirements for maintenance.

Table 5. Waste Documentation Examples	
Document	Description
Waste Stream Profile	<ul style="list-style-type: none"> ▪ Summarizes waste characterization information. ▪ Documents hazardous waste determination and assigned waste category.

Table 5. Waste Documentation Examples	
Waste Disposal Request	<ul style="list-style-type: none"> ▪ Requests waste shipment.
TRU Waste AK Document	<ul style="list-style-type: none"> ▪ Summarizes waste characterization information for TRU and MTRU wastes.
TRU Waste Shipping Record	<ul style="list-style-type: none"> ▪ Requests TRU waste shipment.
Analytical Data	<ul style="list-style-type: none"> ▪ Chemical and radiological analysis reports from on- or off-site analytical laboratories.
Characterization Documents	<ul style="list-style-type: none"> ▪ Procedures, project plans, lab notebooks, experiment design documents, technical papers, building histories, Waste Characterization Strategy Forms, AK Reviews, NNSS Waste Certification packages, etc.
Shipping Papers	<ul style="list-style-type: none"> ▪ Manifests, Bills of Lading, and LA Eco Station Day Passes
Inspection Records	<ul style="list-style-type: none"> ▪ Completed records associated with required inspections of waste storage areas.
Noncompliance Reports and Corrective Actions	<ul style="list-style-type: none"> ▪ Records associated with inspections, assessments, and similar evaluations that indicate noncompliance with requirements or opportunities for improvement.
Permit Documentation	<ul style="list-style-type: none"> ▪ Biennial reports, Demolition Notifications, Waste Minimization Reports, etc.
Training Records	<ul style="list-style-type: none"> ▪ Training materials and records of completed personnel training.
Pollution Prevention/Waste Minimization Analysis Reports	<ul style="list-style-type: none"> ▪ Reports of P2 investigations.
Recycling Reports	<ul style="list-style-type: none"> ▪ Summarizes volumes, types, and destinations of materials being recycled.
Site Treatment Plan	<ul style="list-style-type: none"> ▪ Listing of MTRU and MLLW containers that exceed regulatory storage limit dates. ▪ Includes justification of why container is on the STP.
DOE O 435.1 Exemption Request	<ul style="list-style-type: none"> ▪ Documents rationale for and DOE approval to ship LLW to a commercial LLW disposal facility.
Waste Analysis Plans and Sampling & Analysis Plans	<ul style="list-style-type: none"> ▪ Describe various sampling and analysis activities.
WCATS TRU Waste Questionnaire	<ul style="list-style-type: none"> ▪ Summarizes AK for TRU waste to ensure compliance with WIPP WAC.

5.11 Waste from Emergency Response Implementation

Waste from emergencies, spills, leaks, or other abnormal events is still subject to LANL's waste management program. Local staff, the Los Alamos Fire Department, and/or LANL emergency response personnel will be called-out and will respond to emergency or abnormal events such as:

- Release, spill, or discharge of a hazardous or radioactive substance;
- Identification of an unknown or unstable material that may pose an imminent threat; or
- Uncontrolled fire, explosion, or detonation.

In such cases, Laboratory personnel will invoke a formal process that includes evaluation of the situation, addressing immediate hazards, and putting the situation into a safe configuration. The response may include implementing the LANL RCRA Permit Contingency Plan, notifying authorities, requesting an emergency waste treatment permit from NMED, and/or reporting the event to authorities.

If you find an abandoned material or waste that has no apparent owner:

- Treat the situation as a potential emergency.
- Do not move or touch the waste or the container.
- Isolate the area.
- Immediately report emergencies and non-emergency incidents as soon as it is safe to do so, following the procedures within P1201-4, *Los Alamos National Laboratory Incident Reporting and Protective Actions*.

Once the emergency or abnormal event is over, the Incident Response Commander will return the responsibility of the waste over to the WMC(s) assigned to the facility where the event occurred.

6.0 TRAINING

Except for office waste, personnel who generate waste at the Laboratory must be trained and qualified. This ensures that the Laboratory meets its regulatory and contractual requirements. Worker's whose training expires, are prohibited from generating waste, treating waste, or working in a waste management accumulation, staging, or storage area until their training is completed. Performance of waste related activities without proper training is a regulatory compliance violation.

Managers are responsible for assigning their personnel to the training curricula identified in Table 6, below.

Note: Site-specific training may be required, and directed by responsible line managers.

Table 6. Training Requirements

Role	UTrain Curricula*
Waste Generators	<ul style="list-style-type: none"> ▪ <u>Curriculum 2810</u>, Waste Generator Training ▪ <u>Curriculum 10392</u>, WCATS Generator Role Training
CAA Workers or Owners**	<ul style="list-style-type: none"> ▪ <u>Curriculum 293</u>, Central Accumulation Area Worker Training
TSF Workers or Owners**	<ul style="list-style-type: none"> ▪ <u>Curriculum 256</u>, RCRA Hazardous/Mixed Waste Worker Training ▪ <u>Curriculum 4027</u>, <i>HAZWOPER TSDF Worker</i>
Authorized Users	<ul style="list-style-type: none"> ▪ <u>Curriculum 13865</u>, Authorized User
* Each curriculum includes refresher training as required.	
**This RCRA-related training must be completed within 6 months of employment or a new assignment. During this period, workers must work under the supervision of a trained worker.	

7.0 IMPLEMENTATION

The requirements in this document are effective on the effective date.

7.1 Exceptions or Variances

This document implements State and Federal legal requirements and compliance with those requirements is mandatory. Organizations may request temporary exceptions or variances from the requirements of this policy and/or associated implementing procedures from the Issuing Authority (ALDESHQ) by proposing temporary actions that meet applicable regulatory requirements. Concurrence by EPC-WMP subject matter experts and the applicable Waste Certifying Official is mandatory before any exception or variance is granted.

See [AP-P409-7000](#), *Requesting and Approving Variances or Exceptions to P409 Related Implementing Documents*, for additional information.

7.2 Documents, Records, and Internal Deliverables

The Policy Office is the Laboratory Office of Record for this Institutional Document and maintains the administrative record.

EPC Division is the Laboratory Office of Record for waste management records. The formal facility operating record for the Laboratory's Hazardous Waste Facility Permit is maintained in WCATS, EDRMS, the EIM, and in the electronic and physical public reading rooms.

8.0 REFERENCES

Prime Contract:

- [10 CFR](#), *Energy*
- [40 CFR](#), *Environmental Protection*
- [40 CFR Part 122](#), *EPA Administered Permit Programs: The National Pollutant Discharge Elimination System*
- [40 CFR Part 279](#), *Standards for the Management of Used Oil*
- [40 CFR Parts 260 to 273](#), *Hazardous Waste Management System*
- [40 CFR Parts 700 to 799](#), *Toxic Substances Control Act regulations*
- [48 CFR](#), *Integration of Environment, Safety, and Health into Work Planning and Execution*
- [49 CFR](#), *Transportation*
- [DEAR 970.5223-1](#), *Integration of Environment, Safety, and Health into Work Planning and Execution*
- [DOE M 435.1-1 Chg. 3](#), *Radioactive Waste Management Manual*
- [DOE O 414.1D, Adm. Chg. 2](#), *Quality Assurance*
- [DOE O 435.1 Chg. 2](#), *Radioactive Waste Management*
- [DOE O 436.1A](#), *Departmental Sustainability*
- [DOE O 458.1 Chg. 4](#), *Radiation Protection of the Public and the Environment*
- [DOE O 460.2B](#), *Departmental Materials Transportation and Packaging Management*
- [DOE O 474.2A](#), *Nuclear Material Control and Accountability*
- [LANL Hazardous Waste Facility Permit](#)
- LANL Institutional RCRA Permit, EPA and NMED RCRA Operating Permit
- [NA SD 430.1](#), *Real Property Asset Management*

8.1 Implementing Documents

The following documents implement this Institutional Document.

- [AP-P409-0101](#), *Difficult Waste Streams*
- [AP-P409-0303](#), *Waste Sample and Analysis Plan Procedure*
- [AP-P409-0304](#), *Listed Source Review Procedure for Managing Environmental Media*

- [AP-P409-0306](#), *Identifying and Assessing Newly Created or Discovered Potential Release Sites*
- [AP-P409-0307](#), *Waste Verification*
- [AP-P409-0702](#), *Weighing and Final Closure of Waste Packages for Transportation*
- [AP-P409-0704](#), *Process for Review of Radionuclide Values for LANL Waste Prior to Shipment*
- [AP-P409-1000](#), *Facility Operating Record Requirements for Waste Documentation*
- [AP-P409-7000](#), *Requesting and Approving Exceptions or Variances to P409 Related Implementing Documents*
- [EPC-CP-QP-010](#), *Land Application of Groundwater*
- [EPC-WMP-QAP-200](#), *Los Alamos National Laboratory Waste Certification Quality Assurance Plan (QAP)*
- [FSD-P409-0100](#), *Waste Planning*
- [FSD-P409-0102](#), *Work Conducted Within or Near a Consent Order Site*
- [FSD-P409-0200](#), *Waste Generation*
- [FSD-P409-0201](#), *Radioactive Waste Management*
- [FSD-P409-0300](#), *Waste Characterization and Compatibility*
- [FSD-P409-0301](#), *Waste Characterization Strategy Form Preparation*
- [FSD-P409-0302](#), *Site Characterization for Construction, Renovation, and Demolition*
- [FSD-P409-0400](#), *Waste Determination and Categorization*
- [FSD-P409-0600](#), *Waste Accumulation and Storage*
- [FSD-P409-0601](#), *Radioactive Waste Management Basis Submittal Process*
- [FSD-P409-0800](#), *Waste Treatment Decision Making*
- [FSD-P409-0901](#), *Authorized Release Limits Proposal Process*
- [FSD-P409-0902](#), *Land Application of Drill Cuttings*
- [FSD-P409-0904](#), *On-site Reuse of Environmental Media from Excavation, Construction, and Demolition Activities as Administratively-Controlled Fill*
- [FSD-P409-0905](#), *DOE Order 435.1 Exemption Request*
- [PA-AP-01146](#), *Acceptable Knowledge Documentation Procedure*
- [PA-AP-01216](#), *Acceptable Knowledge Technologist Procedure*
- [PA-DOP-01456](#), *Packing TRU Waste into Approved Containers*
- [PA-DOP-01665](#), *Characterization and Absorption of Liquids*
- [PD-P409-0001](#), *Waste Management Compliance Assurance Program*
- [RD-P409-0202](#), *LANL NNSS Waste Certification Program LW/MLLW Procurement Requirements*
- [RD-P409-0900](#), *LANL Subcontractor Waste Disposal Requirements*
- [TA55-RD-539](#), *TA-55 FOD Waste Management Requirements*
- [TP-P409-0700](#), *On-Site Waste Management Field Tasks*

- [TP-P409-0701](#), *Preparing and Shipping Waste/Material Off-Site*

8.2 Guidance Documents

- [IG-P409-0002](#), *Waste Management Glossary*
- [IG-P409-0211](#), *Management of Office Waste*
- [IG-P409-0212](#), *Non-Empty Gas Cylinders or Cryogenic Dewars Management*
- [IG-P409-0213](#), *High Explosives Waste and Wastewater Management*
- [IG-P409-0214](#), *Hazardous Solvent Contaminated Wipes/Rags*
- [IG-P409-0215](#), *Construction and Demolition Debris Management*
- [IG-P409-0216](#), *Polychlorinated Biphenyl (PCB) Waste Management*
- [IG-P409-0217](#), *Nonhazardous Waste Management*
- [IG-P409-0218](#), *Management of Radioactive Sealed Sources as Waste*
- [IG-P409-0219](#), *Unbound Engineered Nanoparticle (UNP) Waste Management*
- [IG-P409-0220](#), *Antifreeze for Recycle*
- [IG-P409-0221](#), *Alkaline and Carbon Zinc Batteries*
- [IG-P409-0222](#), *Lead Acid/Gel Cell Batteries Managed by Salvage as Recyclable Material*
- [IG-P409-0223](#), *Circuit Boards for Recycle*
- [IG-P409-0224](#), *Excavated Material Management*
- [IG-P409-0225](#), *Paint Waste Management*
- [IG-P409-0226](#), *Refrigerant-Containing Equipment Management*
- [IG-P409-0227](#), *Scrap Metal for Recycle*
- [IG-P409-0228](#), *Management of Waste Sharps*
- [IG-P409-0229](#), *Empty Containers*
- [IG-P409-0230](#), *Management of New Mexico Special Waste*
- [IG-P409-0231](#), *Roofing Waste Management*
- [IG-P409-0232](#), *Beryllium Waste Management*
- [IG-P409-0233](#), *Management of Universal Waste*
- [IG-P409-0234](#), *Management of Used Oil for Recycle*
- [IG-P409-0235](#), *Hazardous Waste Determinations for Waste Generators*

8.3 Other References

- [CCP-PO-012](#), CCP/Triad National Security LLC at Los Alamos National Laboratory (LANL) Interface Document
- [DOE/WIPP-02-3122](#), *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Project*
- Energy Facility Contractors Group, Termination of Safeguards Controls Best Business Practices
- [EPC-ES-GUIDE-016](#), *Pollution Prevention is Source Reduction*

- [EPC-WMP-QP-250](#), *Waste Management Program Assessments*
- [20 NMAC Chapter 4](#), *Hazardous Waste*
- [20 NMAC Chapter 6](#), *Water Quality*
- [20 NMAC Chapter 9](#), *Solid Waste*
- [P300](#), *Integrated Work Management*
- [P315](#), *Conduct of Operations Manual*
- [P322-3](#), *Performance Improvement from Abnormal Events*
- [P322-4](#), *Issues Management*
- [P328-5](#), *Assessments*
- [P409-1](#), *LANL Waste Acceptance Criteria*
- [P781-1](#), *Conduct of Training*
- [P850](#), *Subcontract Technical Representative Procedure*
- [P1201-4](#), *Los Alamos National Laboratory Incident Reporting and Protective Actions*
- [PD1020](#), *Document Control and Records Management*
- [PD1020-2](#), *Laboratory Document Control*
- [Registered Waste Areas database](#)
- [SBP-112-3](#), *Unreviewed Safety Question (USQ) Process*
- [SD400](#), *Environmental Management System*
- [WCATS](#), *Waste Compliance and Tracking System*

8.4 Acronyms

See [LANL Acronym Master List](#).

8.5 Definitions

See [LANL Definition of Terms](#).

8.6 Forms

[Form 2107](#), *Radioactive Waste Management Basis Report Form*

Other forms related to this document are identified in their respective implementing procedures.

9.0 HISTORY

Note: History entries prior to 11/01/2018, the start date of Triad management, have been removed from this policy. For earlier history entries, send a request to policy@lanl.gov.

Revision History		
11/01/18	P409, Rev. 7 Admin. Change 3	Updated organizational names throughout document. Updated Sections 11.0, References, and 14.0, Contact.
04/11/19	P409, Rev. 7 Admin. Change 4	Updated hyperlinks and cross-references regarding P409 Waste Management Tools.

Revision History		
		<p>Section 3.2.2: Deleted first paragraph, which referenced ADESH-AP-TOOL-306, a discontinued P409 Waste Management Tool.</p> <p>Section 11.0: Deleted discontinued P409 Waste Management Tools.</p>
02/18/20	P409, Rev. 7 Admin. Chg. 5	Section 11.0: Fixed hyperlinks to P409 Tools.
04/30/21	P409, Rev. 8	<p>Published as PROVISIONAL until 04/30/2021.</p> <p>Revision 8 entailed an extensive review and revision with all sections modified. The effort was implemented to create a single Waste Operations Program and to address critical issues related to NMCA, nuclear safety, criticality safety, waste, and classification enhancements. The revision served to clarify cradle-to-grave process and point to implementing procedures that have been generated as part of this effort. This document established new policies to clarify the waste generator role and collaborative waste generation.</p>
10/01/21	P409, Rev. 8 Admin. Chg. 1	<p>Section 3.3: Corrected procedure number, FSD-P409-0303, <i>Waste Sample and Analysis Plan Procedure</i> to AP-P409-0303, <i>Waste Sample and Analysis Plan Procedure</i>.</p> <p>Section 3.10: Corrected procedure number, FSD-P409-1000, <i>Facility Operating Record Requirements for Waste Documentation</i> to AP-P409-1000, <i>Facility Operating Record Requirements for Waste Documentation</i>.</p> <p>Section 7.0: Corrected procedure number, FSD-P490-7000, <i>Requesting and Approving Variances or Exceptions to P409 Related Implementing Documents</i>, should have been AP-P409-7000, <i>Requesting and Approving Exceptions or Variances to P409 Related Implementing Documents</i>.</p> <p>Corrected title of FSD-P409-0800 referenced throughout document.</p> <p>Updated hyperlinks.</p>
11/30/21	P409, Rev. 8 Admin. Chg. 2	<p>Moved many of the prime contract requirements from Section 11.2 to Section 11.0.</p> <p>Throughout document-updated Contact Section, references, hyperlinks.</p>
01/07/22	P409, Rev. 8 Admin. Chg. 3	<p>Updated DOE M 435.1-1 to Chg 3.</p> <p>Updated DOE O 435.1 to Chg 2.</p>
08/22/22	P409, Rev. 8 Admin. Chg. 4	Updated Section 3.7: Added references to AP-P409-0702, <i>Weighing and Final Closure of Waste Packages for Transportation</i> and AP-P409-0704, <i>Process for</i>

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		<p><i>Review of Radionuclide Values for LANL Waste Prior to Shipment</i></p> <p>Updated Section 11: Added references to AP-P409-0702, <i>Weighing and Final Closure of Waste Packages for Transportation</i> and AP-P409-0704, <i>Process for Review of Radionuclide Values for LANL Waste Prior to Shipment</i></p> <p>Updated hyperlinks.</p>
11/28/22	P409, Rev. 8 Admin. Chg. 5	<p>Section 3.11: Updated to align with P1201-4, <i>Los Alamos National Laboratory Incident Reporting and Protective Actions</i>.</p> <p>Updated ALDESHQSS to ALDESHQ throughout document.</p> <p>Section 10.0: Removed history entries prior to 11/01/18.</p>
08/16/23	P409, Rev. 8 Admin. Chg. 6	<p>Section 1.0-5.0: Removed hyperlinks</p> <p>Section 11: Updated references.</p>
08/31/23	P409, Rev. 8 Admin. Chg. 7	<p>Section 1.2, 2nd Paragraph, remove the words, “, which is part of EWP,” to clarify the sentence for reader.</p>
10/19/23	P409, Rev. 8 Admin. Chg. 8	<p>Section 11.0: Changed DOE Order 436.1, <i>Departmental Sustainability</i>, to DOE Order 436.1A, <i>Departmental Sustainability</i>.</p>
10/03/24	P409, Rev. 9	<p>Transferred text to new template.</p> <p>Corrected typographical errors.</p> <p>Section 4.9: Changed title to NNSS Waste Certifying Official. Removed “or commercial LLW or MLLW facilities” from three bullets and removed the bullet that states “evaluate and approve commercial LLW or MLLW TSDFs.”</p> <p>Section 5.4: Changed “It is the Laboratory’s policy to complete a WSP <u>before</u> the waste is generated” to “It is recommended to complete a WSP <u>before</u> the waste is generated.”</p> <p>Section 5.6.1: First Sentence, changed “waste in storage must be inspected,” to “waste in storage should be inspected.”</p> <p>Section 5.6.1: Changed “the Laboratory requires waste generators” to “the Laboratory recommends waste generators.”</p> <p>Section 6.0: Added Curriculum 4027, <i>HAZWOPER TSDF Worker</i> to the TSF Workers or Owners row.</p>