



Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

NPDES Permit No. NM0030759

**AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Clean Water Act, as amended,
(33 U.S.C. 1251 et. seq; the "Act"),

Los Alamos National Laboratory (LANL), managed and owned by Permittees

Los Alamos National Security, LLC
Management Contractor for Operations
Los Alamos, New Mexico 87545

and

U.S. Department of Energy
Los Alamos Area Office
Los Alamos, New Mexico 87544

is authorized to discharge storm water associated with industrial activities from specified solid waste management units (SWMUs) and areas of concern (AOCs) (as identified in Appendix A and referred to herein as "Sites") from the facility located at Los Alamos, New Mexico, to receiving waters named:

Tributaries or main channels of Mortandad Canyon, Canada del Buey, Los Alamos Canyon, DP Canyon, Sandia Canyon, Ten Site Canyon, Canyon de Valle, Water Canyon, Ancho Canyon, Bayo Canyon, Chaquehui Canyon, Fence Canyon, Pajarito Canyon, Two mile Canyon, Three mile Canyon, Potrillo Canyon, Pueblo Canyon, and Rendija Canyon, in Water Body Segment No. 20.6.4.98, 20.6.4.126 or 20.6.4.128 of the Rio Grande Basin,

in accordance with this cover page and monitoring requirements, and other conditions set forth in Parts I [Requirements for NPDES Permits], II [Other Conditions], and III [Standard Conditions for NPDES Permits] hereof.

This permit shall become effective on

This permit and the authorization to discharge shall expire at midnight,

Issued on

Prepared by

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PART I - REQUIREMENTS FOR NPDES PERMITS

This Permit authorizes only those storm water discharges associated with solid waste management units (SWMUs) and area of concerns (AOCs) listed in Appendix A of the Permit. The SWMUs and AOCs identified in Appendix A are collectively referred to throughout this Permit as “Sites.” This Permit does not authorize storm water discharges associated with current conventional industrial activities at the Permittees’ LANL facility. Storm water discharges associated with current conventional industrial activities are currently covered under EPA’s NPDES general permit for storm water discharges from industrial activity, also known as the Multi-Sector General Permit (MSGP). Unless otherwise specified, references to “industrial activity” or “industrial storm water” under this Permit refer to the definition of “storm water discharge associated with industrial activity” at 40 C.F.R. § 122.26(b)(14).

The Permit contains non-numeric technology-based effluent limitations, coupled with a comprehensive, coordinated monitoring program and corrective action where necessary, to minimize pollutants in Permittees’ storm water discharges. As used in this Permit, “minimize” means to reduce and/or eliminate discharges of pollutants in storm water to the extent achievable using site-specific control measures (including best management practices) that reflect best industry practice considering their technological availability, economic achievability and practicability.

The Permittees are required to implement site-specific control measures (including best management practices) to address the non-numeric technology-based effluent limits contained in the Permit, followed by confirmation monitoring against New Mexico water-quality criteria-equivalent target action levels (TALs) to determine the effectiveness of the site-specific measures. The Permittees must also develop, maintain and update a Site Discharge Pollution Prevention Plan (SDPPP) consistent with Section F.1 of the Permit describing the control measures used to meet the requirements of the Permit.

A. MAINTENANCE OF CONTROL MEASURES

For all Sites identified in Appendix A of this Permit, the Permittees shall install and maintain structural and nonstructural control measures to meet the non-numeric technology-based effluent limits, as necessary, to minimize Site-related pollutants in storm water discharges. Nothing in this Permit relieves the Permittees of the obligation to implement additional control measures required by other Federal authorities or by a State or local authority. Structural control measures, which involve the discharge of dredge or fill material into any receiving waters (e.g., wetlands), may require a separate permit under section 404 of the Clean Water Act (CWA) before installation.

1. Structural Control Measures

(a) Basic structural control measures include:

- (i) **Erosion and Sedimentation Controls.** The Permittees must minimize discharges of pollutants caused by onsite erosion and

sedimentation. The Permittees must implement structural, vegetative, and/or stabilization control measures as necessary to achieve this requirement.

- (ii) **Management of Run-on and Runoff.** The Permittees must, to the extent practicable, divert, infiltrate, reuse, contain, detain, or otherwise reduce storm water run-on/runoff to minimize Site-related pollutants from discharging to receiving waters.
- (iii) **Unauthorized Discharges.** The Permittees must eliminate non-storm water discharges (e.g., process wastewater, spills or leaks of toxic or hazardous materials, contaminated groundwater, or any contaminated non-storm water) not authorized by an NPDES permit.
- (iv) **Other Controls.** The Permittees must do the following where applicable:
 - (A) Implement controls to ensure no waste, garbage, or floatable debris is discharged to receiving waters, except as authorized by a permit issued under section 404 of the CWA;
 - (B) Minimize the generation of dust, along with off-site vehicle tracking of raw, final, or waste materials or sediments;
 - (C) Minimize the introduction of raw, final, or waste materials to exposed areas;
 - (D) Minimize the effects of any increase in downstream erosion resulting from the construction and operation of structural controls; and
 - (E) Place flow velocity dissipation devices at discharge locations and along the length of any discharge channel if the flows would otherwise create erosive conditions.

(b) The Permittees must maintain control measures in effective operating condition. Failure to do so is a violation of this Permit. These maintenance requirements under this Permit do not apply to:

- (i) Controls installed for a Site that has been removed from the Permit so that discharges from that Site are no longer authorized under this permit, or
- (ii) A control measure that has been replaced by another control measure, or
- (iii) A control measure that has been retired because it is no longer necessary to perform the functions of a control as defined by Part I.A.1.(a)(i) or (ii).

The Permittees must maintain all control measures in effective operating condition. The Permittees must keep documentation onsite that describes procedures and a plan for inspection and preventative maintenance of all control measures and discussions of backup practices in place should a runoff event occur while a control measure is off-line. Nonstructural control measures must also be diligently maintained (e.g., employee training). Nothing in this Permit shall be

construed to prevent the Permittees from taking action(s) to modify control measures as appropriate to address deficiencies.

If during inspections, or any other event or observation, control measures that are not operating effectively are identified, the Permittees must repair or replace them before the next anticipated storm event if possible, or as soon as practicable, following that storm event. In the interim, the Permittees must have backup measures in place.

Requirements of inspection and maintenance of existing control measures described in this part, Part I.A, also applies to additional, enhanced, or advanced control measures.

2. Nonstructural Control Measures

The Permittees must provide training at least once per year to all employees who are responsible for implementing activities identified in the Permit and the SDPPP (e.g., inspectors, maintenance personnel), including all members of the Site Discharge Pollution Prevention Team (referred to Pollution Prevention Team in this Permit). Training must cover both the specific components of the Permit and scope of the SDPPP and the control measures required under this Part. The Permittees shall maintain the record of Permit employee training program.

B. APPLICABLE TARGET ACTION LEVELS

The target action levels established below are based on and equivalent to New Mexico State water quality criteria for the subject pollutants. The applicable target action levels are not themselves effluent limitations, but are benchmarks to determine the effectiveness of control measures implemented to meet the non-numeric technology-based effluent limitations. Monitoring results based on analytical data showing pollutant concentrations above applicable target action levels at any Site indicate that further corrective action may be required.

Total, unless indicated	CAS No.	MQL (µg/l)(*1)	ATAL (µg/l)(*2)	MTAL (µg/l)(*3)
RADIOACTIVITIES				
Ra-226 and Ra-228 (pCi/l)			30	---
Adjusted Gross Alpha (pCi/l)			15	---
METALS				
Aluminum, total recoverable	7429-90-5	2.5	---	3421
Antimony, dissolved (P)	7440-36-0	60	640	---
Arsenic, dissolved (P)	7440-38-2	0.5	9	340
Boron, dissolved	7440-42-8	100	5000	---
Cadmium, dissolved	7440-43-9	1	---	(*5)
Chromium VI, dissolved	18540-29-9	10	---	16
Cobalt, dissolved	7440-48-4	50	1000	---
Copper, dissolved	7440-50-8	0.5	---	(*5)
Lead, dissolved	7439-92-1	0.5	---	(*5)
Mercury, dissolved	7439-97-6	0.005	0.77	1.4

Total, unless indicated	CAS No.	MLQ (µg/l)(*1)	ATAL (µg/l)(*2)	MTAL (µg/l)(*3)
Mercury, total	7439-97-6	0.005	0.77	---
Nickel, dissolved (P)	7440-02-0	0.5	---	(*5)
Selenium, total recoverable	7782-49-2	5	5	20
Silver, dissolved	7440-22-4	0.5	---	(*5)
Thallium, dissolved (P)	7440-28-0	0.5	0.47	---
Vanadium, dissolved	7440-62-2	50	100	---
Zinc, dissolved	7440-66-6	20	---	(*5)
CYANIDE				
Cyanide, total recoverable	57-12-5	10	5.2	22
DIOXIN				
2,3,7,8-TCDD (P)	1746-01-6	0.00001	5.1E-08	---
SEMIVOLATILE COMPOUNDS				
Pentachlorophenol	87-86-5	5	---	19
Benzo(a)pyrene (P)	50-32-8	5	0.18	---
Hexachlorobenzene (P)	118-74-1	5	0.0029	---
PESTICIDES				
Aldrin (P)	309-00-2	0.01	0.0005	3
Gamma-BHC	58-89-9	0.05	---	0.95
Chlordane (P)	57-74-9	0.2	0.0081	2.4
4,4'-DDT and derivatives (P)	50-29-3	0.02	0.001	1.1
Dieldrin (P)	60-57-1	0.02	0.00054	0.24
Alpha-Endosulfan	959-98-8	0.01	---	0.22
Beta-Endosulfan	33213-65-9	0.02	---	0.22
Endrin	72-20-8	0.02	---	0.086
Heptachlor	76-44-8	0.01	---	0.52
Heptachlor Epoxide	1024-57-3	0.01	---	0.52
Toxaphene	8001-35-2	0.3	---	0.73
PCBS				
PCBs (P)	1336-36-3	(*4)	0.00064	---
HIGH EXPLOSIVES				
RDX	121-82-4		200	---
2,4,6-Trinitrotoluene (TNT)	118-96-7		20	---

Footnote:

- (*1) MLQ is the minimum quantification level. EPA approved analytical methods with the same or more sensitive detectable level (DL) than MLQ shall be used. If an individual analytical test result is smaller than the MLQ or the more sensitive DL, a value of zero (0) or "ND" may be used for reporting and action purpose.
- (*2) ATAL stands for Average Target Action Level
- (*3) MTAL stands for Maximum Target Action Level

- (*4) Method 1668 Revision C or the most current revision of the Congener Method shall be used for PCB analysis. See Appendix C for MQL.
- (*5) Hardness-dependent metals target action levels. (See Appendix F)

C. CONFIRMATION MONITORING REQUIREMENTS

The Permittees shall monitor storm water discharges from Sites at specified sampling points known as site monitoring areas (SMAs) against applicable target action levels. The Permittees shall perform confirmation monitoring as detailed below following installation in accordance with Permittees' SDPPP of each site-specific control measure, including any enhanced or additional control measure installed as corrective action. Pollutants of concern to be monitored are specified in Appendix B.

1. Confirmation Sampling

After new, modified, or enhanced control measures are installed, the Permittees shall collect two or more confirmation samples. The Permittees shall immediately restart the samplers after collection of a sample.

2. Sampling Locations

All samples collected for purposes of confirmation monitoring shall be collected in compliance with the monitoring requirements specified below at the SMAs specified in Appendix A to the Permit. Instead of monitoring at each individual Site, the Permittees may, when appropriate based on drainage patterns for the affected Sites, monitor two or more Sites in conjunction at an associated SMA, as long as the SMA and all associated Sites are identified in Appendix A to the Permit. SMA locations are based on reasonable site accessibility for sampling purposes and the Permittees' best judgment to ensure that samples taken at a particular point will be representative of discharges of storm water from Site-affected media (soil, sediment, or bedrock) and to minimize potential impacts from confounding factors (e.g., urban runoff and construction activity). The size of drainage area of each SMA shall be representative and as close as practical to the size of Site or Sites within the SMA.

(a) **Sampling locations.** All sampling locations should be representative of storm water discharges collected from affected Sites. Factors for selection of sampling locations may include, but are not limited to, concentrations of Site-related constituents in shallow soils (i.e., less than 3 feet below ground surface), Site surface water drainage patterns, Site history identifying areas of known or potential releases, Site accessibility, and run-on from non-Site affected areas.

(b) **Sampler location adjustments.** The Permittees may move a sampler to make adjustments that arise from changes in natural conditions, installation of structural controls, unexpected events, or as otherwise necessary to ensure the sampling location is representative of storm water discharges from the Site-affected media as delineated by soil sampling data. Such changes may include minor updates in Site boundaries, changes in storm water drainage patterns, logistical, or security adjustment. Any such movement of a sampler will be published on the

LANL Individual Permit public website within 30 days after the change occurs and documented in the annual SDPPP.

(c) **Sampler additions.** In the event that new information indicates the current sampling location is not representative of discharges from the Site-affected media, the Permittees may add additional sampling locations during the permit term in order to collect more representative samples. Proportional sample volumes shall be composited for analysis if samples collected from more than one location are collected. The Permittees shall provide relevant documentation to support the determination for additional sampling locations to EPA and the New Mexico Environment Department (NMED) Surface Water Quality Bureau (SWQB), and make such documentation available on the LANL Individual Permit public website within 30 days after submittal of supporting documents to EPA and included in the next update to the SDPPP.

3. Sampling Procedures

Any sampling performed for purposes of confirmation monitoring at a particular SMA must be performed following a storm event, after installation of applicable control measures, that results in an actual discharge from the Site or Sites and that produces sufficient volume to perform the required analyses (referred to herein as a “measurable storm event”). For each sampling event, the Permittees must identify the date and duration (in hours) of the storm event(s) sampled, rainfall measurements or estimates (in inches) of the storm event that generated the sampled runoff, and the duration between the storm event samples and the end of the previous measurable storm event. The Permittees may take meteorological information from the nearest meteorological tower or automated rain gage. Snow melt samples shall not be used for purposes of confirmation monitoring.

Grab samples shall be taken when discharge occurs. Samples must be collected beginning within the first thirty (30) minutes of (or as soon after as practical, but beginning no later than one (1) hour after) a measurable storm event.

4. Collection of Partial Samples

In the event the collected volume is insufficient to perform all required analyses listed in Appendix B, the partial sample shall be analyzed in accordance with a priority list of Site-specific analytes determined by the Permittees based upon a review of site history, soil data, and other acceptable knowledge as defined under Part I.D.1(a)(ii). The priority list for each Site is documented in Appendix B. The results of the analyses of the partial sample shall be reported by e-mail to EPA, with a copy to NMED, documented in the next update to the SDPPP and published on the LANL Individual Permit public website within 30 days of receipt of the sample analytical results. The results of a partial sample shall be evaluated under Parts I.C.5 and I.D.

In the event that a partial sample is collected, the Permittees shall immediately reactivate the sampler to attempt to complete the full Site-specific analyte suite listed in Appendix B.

5. Confirmation Results below TALs

(a) Removal of Appendix B Monitoring Requirements for a Site or SMA

A minimum of two confirmation samples must be collected and analyzed before one or more pollutants of concern may be removed from monitoring requirements for an individual SMA, except as provided in Part I.H.1. The two samples required for initial sampling under Part I.C.1 are sufficient to meet this requirement, provided analytical results for the pollutant(s) of concern at the same SMA if all analytical results for a pollutant of concern at a particular SMA are at or below the maximum target action level (MTAL) and the average of all applicable sampling results is at or below the average target action level (ATAL).

6. Additional Sampling Requirements

(a) If soil disturbance within the Site-affected media occurs, storm water samples collected by the Permittees following these activities shall be analyzed for all pollutants listed in Appendix B for that SMA. Installation and routine maintenance of monitoring devices are not subject to the requirements of this Part.

(b) Notwithstanding the provisions of Parts I.C.5 and D.1, and except as provided in Part I.H.1, if a Site for which monitoring has ceased later exhibits evidence of a discharge of contaminated runoff or conditions that could lead to a discharge of contaminated runoff, such as control measure failure, erosion problems, re-exposure of “no exposure” Sites, or if monitoring data (from the facility, state or local agency) show an exceedance of applicable TALs, the Permittees shall initiate appropriate actions to correct the problems within thirty (30) days of being made aware of such information and shall report the problem and the corrective actions taken to EPA, with a copy to NMED.

D. CORRECTIVE ACTION

If any validated analytical result for a particular pollutant of concern from a confirmation sample at an individual SMA is greater than the MTAL or the geomean of all applicable sampling results is greater than the ATAL, the Permittees shall conduct visual inspections for all Sites within the SMA. If the Permittees are not able to document that the Site is not reasonably expected to be the source of the pollutant under Parts I.D.1, the Permittees shall initiate corrective action measures as soon as practicable, as required in Part I.D.2 below.

1. Site Contributing Evaluation

If analytical results are greater than the TAL the Permittees will take action to determine if the pollutants of concern are, or are not, reasonably expected to be Site-related.

(a) If analytical results for one or more pollutants of concern at an SMA are greater than the applicable TAL the Permittees may choose to submit a site-specific demonstration (SSD) to EPA, with a copy to NMED, or its designee, that the Site or Sites are not reasonably expected to be the source for one or more of the remaining pollutant(s) of concern.

This demonstration may include the collection of storm water run-on data for all constituents that exceeded the TALs, from a sampler located above the Site. In addition, the

Permittees may choose to collect additional runoff data below a Site or Sites. The runoff sampler may or may not be the SMA sampler location, but the runoff sampler location should be representative of runoff from Site-affected media for the Site(s) being evaluated by the SSD. An example where a runoff sampler is not the SMA sampler is where two or more Sites exist within an SMA and the Permittees choose to monitor runoff from a single Site in the SMA.

The Permittees may choose one or more of the following methods in the SSD to demonstrate that a Site or Sites are not reasonably expected to be the source for one or more of the remaining pollutant(s) of concern:

- (i) **Run-on (including precipitation)/runoff evaluation.** Collect a minimum of three storm water samples from each of the run-on (including precipitation) and runoff locations, and compare the geomean of run-on and runoff data.
- (ii) **Run-on (including precipitation) and site-specific information.** If the Permittees collect a minimum of one sample from the run-on sampler, but are unable to collect the minimum number of run-on samples required for the run-on/run-off evaluation, the Permittees shall use this data, combined with an evaluation of Site-specific information, to determine if the Site or Sites are reasonably expected to be the source of the pollutant that exceeds the applicable TALs. Sources of site-specific information include, but are not limited to, site history, validated surface soil data (i.e., top 3 ft), applicable natural background or baseline concentrations of storm water pollutants, information on land use above and within the SMA, urban background storm water values and scientific literature.
- (iii) If the following condition is met, the Permittees has demonstrated that the Site or Sites are not reasonably expected to be the sole source for one or more of the remaining pollutant(s) of concern and the Permittees have also demonstrated that discharges from the Site or Sites do not contribute exceedance of TALs. Further confirmation sampling for those pollutants of concern are not required.

$$\text{Geomean (run-off)} - \text{Geomean (run-on/precipitation)} \leq \text{TAL}$$

(b) If EPA approves an SSD demonstrating that no applicable TAL exceedances are reasonably expected to be Site-related, for all SMAs identified as containing the Site in Appendix A, the Permittees shall inspect and maintain all existing controls in accordance with Part I.A. (The Site is placed under the Inspection and Maintenance mode.)

(c) If EPA approves an SSD demonstrating that one or more pollutants of concern exceeding the applicable TALs are not reasonably expected to be Site-related no further confirmation sampling is required for that pollutant or pollutants for the Site or group of Sites within the associated SMA for the remaining period of the Permit.

(d) If EPA does not approve an SSD, approves an SSD with modifications, or approves an SSD in which one or more pollutants of concern exceeding the applicable TALs are not included, the Permittees shall perform a corrective action evaluation to determine the appropriate method for completion of corrective action measures for these pollutants of concern for the Site or Sites within the SMA pursuant to Part I.D.2.

2. Evaluation of Corrective Action Measures

If no demonstration has been made that a Site or Sites are not reasonably expected to be the source of the TAL exceedance for one or more pollutants of concern pursuant to Part I.D.1, the Permittees shall perform a corrective action evaluation to determine the appropriate method for completion of corrective action. At a minimum, this corrective action evaluation shall consider the following: comparison of the TAL exceedance with natural background and baseline values listed in Appendix F, run-on pollutant concentrations not impacted by Site-affected media; volume of storm water currently retained and the potential for additional retention of storm water; potential and physical limitation for installation of Site-appropriate storm water controls (with consideration of technological availability); evaluation of the efficacy, limitations, and predicted water quality improvement performance of any proposed storm water controls based on published literature; or distribution of contaminants in soil and the predicted efficacy of any proposed soil removal on removal of pollutants from storm water.

(a) Installation of Enhanced Control Measures

Enhanced (i.e., additional, expanded or better-tailored) control measures may be used to complete corrective action. Where feasible, these enhanced controls shall incorporate low-impact design and green infrastructure design features.

The enhanced control process may include more than one iterations of control installation followed by confirmation monitoring after each control installation. If this type of corrective action is selected, two or more post-enhanced control installation confirmation samples are needed to demonstrate completion of corrective action for an analyte list that reflects the pollutants with TAL exceedances. Enhanced control monitoring is not required for any non-Site-related pollutants pursuant to Part I.D.1.

- (i) If no applicable TAL is exceeded for one or more pollutants in the first confirmation sample collected after the installation of the enhanced control, the Permittees shall collect a second confirmation sample. If no applicable TAL is exceeded for one or more pollutants in this second confirmation sample, no further monitoring of that pollutant is required for the remaining period of the Permit. The Permittees shall inspect and maintain all existing controls in accordance with Part I.A.
- (ii) If the applicable TAL(s) is exceeded for one or more pollutants in any confirmation sample(s) that is collected after the installation of the enhanced control, the Permittees shall update the corrective action evaluation performed under Part I.D.2, considering the storm water

sampling results. The updated corrective action evaluation shall recommend one or more of the following:

- (A) Install an additional structural control and/or modify the design of the existing structural control in accordance with Part I.A,
 - (B) Initiate further measures to complete corrective action under Parts I.D.2(b) or (c), or
 - (C) Submit a request for alternative compliance under Part I.D.4 as soon as practicable.
- (iii) If the Permittees choose to install additional enhanced controls and/or modify an existing enhanced control one or more post-installation confirmation sample shall be collected.
- (A) If no Applicable TAL is exceeded for one or more pollutants in the first confirmation sample, the Permittees shall collect a second confirmation sample. If no Applicable TAL is exceeded for one or more pollutants in this second confirmation sample, no further monitoring of that pollutant is required for the remaining period of the Permit. The Permittees shall inspect and maintain all existing controls in accordance with Part I.A.
 - (B) If the applicable TALs is exceeded for one or more pollutants in any confirmation sample, the Permittees shall initiate further measures to complete corrective action under Parts I.D.2(b) or (c) or Alternative Compliance under Part I.D.4 as soon as practicable.
- (iv) In the event that corrective action was triggered by a partial sample and enhanced controls were completed before collection of the entire Appendix B analytical suite, monitoring shall be reinitiated by the priority list per Part I.C.4, if confirmation sample volume is insufficient for the entire analytical suite.
- (v) Permittees shall certify completion of installation of control measures under this subpart to EPA, with a copy to NMED, within 30 days of completion of all such measures at the Site. Such certification shall be signed in accordance with 40 CFR 122.22(b) and shall include a description and photographs of all completed measures and the results of the corrective measures evaluation performed in Part I.D.2. Except as provided in Part I.H.2, the Permittees are required to continue to inspect the Site in accordance with Part I.F of the Permit and to maintain all control measures in effective operating condition as required by Part I.A.
- (b) Total Elimination of Exposure of Site-Related Pollutants to Storm Water**

To complete corrective action at a Site or Sites within an individual SMA, the Permittees may decide to achieve corrective action through the total elimination of exposure of Site-related pollutants to storm water. Total elimination of exposure of Site-related pollutants to storm water may be achieved in one of two ways:

- (i) **Constructing a cap or other engineered cover.** If the Permittees choose this method to achieve total elimination of exposure of Site-related pollutants to storm water, the Permittees shall construct a cap or other engineered cover. The Permittees will be in compliance with this Permit once they have certified and demonstrated to EPA, through the submission of certified as-built drawings, that such measures have been properly installed to perform their function to totally eliminate exposure of Site-related pollutants to storm water. One confirmation sampling is required if capped area is smaller than the SMA drainage area. Otherwise, no further confirmation sampling is required, unless required by Part I.C.6(b).
- (ii) **Soil removal.** If the Permittees chose this method to achieve total elimination of exposure of Site-related pollutant(s) to storm water, the Permittees shall remove soil and certify to EPA, with a copy to NMED, that soil removal meets the requirements of this Part through collection and evaluation of confirmation soil sampling results. Following certification of completion of soil removal, the Permittees shall perform storm water confirmation sampling.
 - (A) If no Applicable TAL is exceeded for all pollutants in the first confirmation sample, the Permittees shall collect a second confirmation sample. If no Applicable TAL is exceeded for all pollutants in this second confirmation sample, no further monitoring of that pollutant is required for the remaining period of the Permit and the Permittees may seek to delete the Site or Sites from the Permit pursuant to Part I.H.2(e).
 - (B) If the applicable TALs for one or more Site-related pollutants is exceeded in any post soil removal confirmation sample, the Permittees shall initiate further measures to complete corrective action under Parts I.D.2(a) or (c) or Alternative Compliance under Part I.D.3 as soon as practicable.
 - (C) If the Permittees certify to EPA, with a copy to NMED, that three (3) feet or more depth of soils are removed and replaced with clean soils and EPA determines new soil data has demonstrated no significant amount of materials remain on the Site, the Permittees have demonstrated completion of corrective action. (Note: If evidences show that surface runoffs from that Site will penetrate deeper than three feet, the Permittees may not use this approach.)

The Permittees shall certify elimination of exposure under this Part to EPA, with a copy to NMED, within 30 days of completion of all such measures at the Site. Such certification shall be signed in accordance with 40 CFR 122.22(b) and shall include a description and photographs of all completed measures and the results of the corrective measures evaluation performed in Part I.D.2. Except as provided in Part I.H.2, the Permittees are required to continue to inspect the Site in accordance with Part I.F of the Permit and to maintain all control measures in effective operating condition as required by Part I.A.

(c) **Retention of a 3-Year, 24-Hour Storm**

The Permittees may decide to achieve corrective action under this Part through installation of control measures that retain a volume of storm water runoff from a Site or SMA that is equivalent to a 3-yr, 24-hr storm event based on the most representative rain gauge historic records from the nearest meteorological tower to any particular Site and statistic data. The Permittees will be in compliance with this Permit at that Site or SMA once they have certified and demonstrated to EPA, with a copy to NMED, through the submission of certified as-built drawings, that such measures have been properly installed to perform their function to totally retain the appropriate design volume of storm water. No further confirmation sampling is required post-certification, unless required by Part I.C.6(b).

The Permittees may choose to install a run-on control measure coping with runoff and sediment control measures (i.e., low impact development, green infrastructure, sediment catch basin or barrier, etc.) and such installations will minimize discharges from any storm less than the 3-year, 24-hour storm event.

The Permittees are required to continue to inspect the Site in accordance with Part I.F of the Permit and to maintain all control measures in effective operating condition as required by Part I.A.

3. Completion of Corrective Action

The Permittees must certify to EPA, pursuant to 40 CFR 122.22(b), completion of corrective action wherever applicable. Except as provided in Part I.D.4, "Completion of Corrective Action," under this Permit shall mean:

- (a) No applicable TAL exceedances are reasonably expected to be Site-related as demonstrated by the EPA approved SSD under Part I.D.1; or
- (b) The installation of enhanced control measures with confirmation monitoring analytical results less than the applicable TALs under Part I.D.2(a); or
- (c) The installation of control measures that totally eliminate exposure of Site-related pollutants to storm water under Part I.D.2(b), with confirmation monitoring analytical results less than the applicable TALs, if confirmation monitoring is required; or
- (d) The installation of control measures that retains a volume of storm water runoff or minimize discharges from a Site or SMA that is equivalent to a 3-yr, 24-hr storm event under Part I.D.2(c).

4. Alternative Compliance

(a) Where the Permittees believe based upon a technical evaluation of existing control measures that they will be unable to certify Completion of Corrective action under Parts I.D.3(a) through (d) above (individually or collectively) due, for instance, to site conditions

that make it impracticable to install further control measures, or pollutants of concern exceed approved background or baseline values and are contributed by sources beyond the Permittees control, the Permittees may seek to place a site into Alternative Compliance, whereby Completion of Corrective Action will be accomplished on a case-by-case basis, and as necessary, pursuant to a individually tailored control measure by EPA.

(b) To seek to place a Site or Sites into Alternative Compliance, the Permittees must file a written request with EPA and provide written notice to the public and opportunity for public comment. Such a request must include the following:

- (i) A comprehensive description of the control measures installed at the Site or Sites;
- (ii) A list of additional on-the-ground actions or a watershed protection approach (see Part I.H.3) which have resulted in a reduction of Site-related pollutant discharges to reach downstream canyons; and
- (iii) A detailed demonstration, including any underlying studies and technical information, of how the Permittees reached the conclusion that they are unable to certify Completion of Corrective action under Parts I.D.3(a) through (d) above (individually or collectively).

Upon submitting such a request to EPA, the Permittees shall make the request and all supporting information available to NMED and the public for review and comment for a period of forty-five (45) days and shall develop and provide to the commenters a written response document addressing all relevant and significant concerns raised during the comment period. The Permittees' request under this subpart, along with the complete record of public comment and the Permittees' response to comments, shall be submitted to EPA Region 6 for a final determination on the request. The Permittees' response to comments may include a revision to the alternative compliance request and/or the proposed individually tailored work plan.

(c) The Permittees shall not be out of compliance with the applicable requirements for achieving completion of corrective action with respect to the Site or Sites covered by a request. The Permittees shall continue to conduct inspection and maintenance of existing control measures on those Sites.

(d) If EPA, after considering all the information submitted by the Permittees, including all comments received on the request and the Permittees response to those comments, denies the request, EPA may require the Permittees to install Site-specific control measures to complete the corrective action, in writing.

5. Schedules for Corrective Actions

If one or more pollutants of concern exceeding the applicable TALs cannot be excluded as the source of the TAL exceedance pursuant to Part I.D.1, the Permittees shall take proper corrective actions pursuant to the schedules listed below:

- a) Initiate a corrective action evaluation to determine the appropriate method for completion of corrective action no later than 30 days from the date when the Permittees have knowledge of TAL exceedance.
- b) Complete the corrective action evaluation to determine the appropriate method for completion of corrective action no later than 180 days from the date when the Permittees have knowledge of TAL exceedance.
- c) Commence engineering design, purchase order, or installation of BMPs processes no later than 270 days from the date when the Permittees have knowledge of TAL exceedance.
- d) Complete installation of additional control measures no later than 36 months from the date when the Permittees have knowledge of TAL exceedance.

E. SITE DISCHARGE POLLUTION PREVENTION PLAN (SDPPP)

The Permittees shall update the facility's SDPPP annually, submit it to EPA and copy NMED by May 1 of each calendar year of the Permit and post the SDPPP on the LANL Individual Permit public website within 30 days after the submittal. The annual update shall fully incorporate all changes made during the previous year and reflect any changes projected for the following year. The facility's SDPPP must remain compliant with relevant State, Tribal, and local regulations, if applicable.

1. Contents of SDPPP

The facility's SDPPP must describe all control measures installed to meet the requirements of this Permit. In addition, the facility's SDPPP must contain all of the elements described below. The SDPPP must also address the inspection requirements set forth in Part I.F below.

- (a) **Site Discharge Pollution Prevention Team.** The Permittees must identify the staff members (by name or title) that comprise the facility's Site Discharge Pollution Prevention Team (Pollution Prevention Team). The Permittees' Pollution Prevention Team is responsible for assisting the facility manager in developing and revising the facility's SDPPP as well as maintaining control measures and taking corrective actions for deficiencies. Specific responsibilities of each staff individual on the Team must be identified and listed in the SDPPP. Each member of the Pollution Prevention Team must have ready access to either an electronic or paper copy of applicable portions of this Permit and the facility's SDPPP.
- (b) **Site Description.** The facility's SDPPP must include historical activities at each Site, precipitation information, general location map, and Site maps.
- (c) **Receiving Waters and Wetlands.** The SDPPP must include the name(s) of all receiving waters that receive discharges from Sites covered by this permit. The SDPPP must also include the size and description of wetlands or other special aquatic sites.
- (d) **Summary of Potential Pollutant Sources.** The SDPPP must identify each Site at the facility where industrial materials or activities were previously exposed to storm water and from which allowable non-storm water discharges were released. The SDPPP must also

identify the pollutants of concern associated with those activities.

(e) **Description of Control Measures.** The Permittees must update the SDPPP as needed to document all structural control measures installed at a Site as well as the dates installation completed. The SDPPP must include sufficient detail to identify and describe the Site-specific control measures.

(f) **Schedules for Control Measure Installation.** The Permittees shall update the SDPPP as necessary to include schedules for additional control measure installation and implementation resulting from Corrective Action under Part I.D of the Permit.

(g) **Monitoring and Inspection Procedures.** The Permittees must document in the SDPPP schedules and planned procedures for sample collection and site inspection. For each sample to be collected, the SDPPP must identify:

- (i) Locations where samples are to be collected, including coordinates for sampling locations, and any determination that two or more Sites are substantially identical;
- (ii) Person(s) or positions of person(s) responsible for sample collection;
- (iii) Parameters to be sampled and frequency of sampling for each parameter;
- (iv) Procedures for gathering storm event data.

The Permittees must document in the SDPPP all tentative schedules and procedures for erosion and post-storm inspections as described in Parts I.F.1 and F.2 of the Permit below.

(h) **SMA Maps.** The Permittees must include a map with the following information in their SDPPP regarding each SMA:

- (i) Location of each Site within the SMA drainage area;
- (ii) Coordinates of the SMA sampler. If more than one Site is monitored by a SMA, information to demonstrate representative runoff from the individual Sites within the SMA cannot be achieved because site conditions result in mixing of storm water runoff before representative sampling can occur, or the spitting of the SMA into individual Sites would result in substantially small SMA areas as to prevent the collection of storm water, or those Sites are expected to discharge substantially identical effluents; and
- (iii) Estimates of the size (in acres) of the SMA and of Site(s) within the SMA.
- (iv) Any adjustments/changes to sampler locations under Parts I.C.2 and the associated documentation for the sampler move.
- (v) Coordinates and identification of any run-on and/or runoff sampler locations.

- (i) **Signature Requirements.** The SDPPP shall be signed, certified and dated in accordance with 40 CFR 122.22(b) no later than one hundred-eighty (180) days from the effective date of this Permit.

2. Documentation

The Permittees are required to maintain inspection, monitoring, and certification documentation with the SDPPP that together keep the records complete and help to explain ongoing SDPPP implementation activities. These records are maintained alongside the SDPPP document, thereby providing a consolidated record of documented storm water requirements and implementation procedures.

The Permittees must, at a minimum, keep the following records and documentation alongside the SDPPP:

- (a) Dates of training sessions, names of employees trained, and subject matter of training under Part I.A.2.;
- (b) Sampling reports including sampling dates, analytical results, outfall locations, name and qualifications of technician;
- (c) Inspection reports, including visual inspections required by Part I.D above, and any other information required to be included in an Inspection Report under Part I.F.3.below;
- (d) An accounting and an explanation of the length of time it takes to modify control measures or implement additional control measures following the discovery of a deficiency or the need for modification;
- (e) 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, the date(s) that control measure(s) returned to full function, and the justification for any extended maintenance/repair schedules.

3. Required Modifications

The Permittees must keep documents and records with the SDPPP as necessary to reflect:

- (a) Construction or a change in design, operation, or maintenance at the facility having a significant impact on the discharge, or potential for discharge, of pollutants from the facility;
- (b) Findings of deficiencies in control measures during inspection or based on analytical monitoring results;
- (c) Any change of monitoring requirement or compliance status;
- (d) Any change of SMA location in accordance with Parts I.C.2(a)–(c); and
- (e) Summary of changes from the last year's SDPPP.

If any of the circumstances described above occur at any Site, the Permittees must address these changes or deficiencies to ensure compliance with this Permit's conditions and applicable monitoring requirements. All changes must be incorporated into the SDPPP and a summary of these changes must be included in the Annual Report.

4. SDPPP Availability

The Permittees must retain a paper copy of the current SDPPP required by this Permit at the facility, and it must be immediately available to EPA, a State, Tribal or local agency approving storm water management plans, the Pollution Prevention Team members, and representatives of the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) at the time of an on-site inspection or upon request. A copy of the SDPPP will also be made available on the Individual Permit public website.

F. INSPECTIONS

The Permittees must conduct the following inspections for every Site. The facility's Pollution Prevention Team may conduct a combined inspection for a Site, if appropriate.

1. Erosion Inspection and Reevaluation

The facility's Pollution Prevention Team shall inspect and evaluate each Site annually for changes of conditions affecting erosion. The facility's Pollution Prevention Team must also reinspect and reevaluate all Sites after notice of a significant event, such as a fire, which could significantly impact the control measures and environmental conditions in the affected area. Such inspection and reevaluation should be conducted before the next anticipated storm event or as early as practicable.

2. Post-Storm Inspection

The facility's Pollution Prevention Team must inspect control measures and storm water management devices at any Site affected by a "storm rain event" defined below, within fifteen (15) calendar days after such storm rain event. The occurrence of a storm rain event as defined below shall be determined based on data from the nearest meteorological tower to any particular Site. A "storm rain event" under this paragraph means a 0.25 in. or more intensive rain event within 30 min.

If several storms exceeding the above intensity threshold occur over a period not to exceed fifteen (15) days from the first event, a single inspection following these storms is sufficient for compliance with this requirement, provided that the inspection occurs no more than fifteen (15) days from the date of the first storm. If adverse weather conditions prevent a site inspection within the required time period, the Permittees shall inspect the Site as soon as practicable. Adverse weather events shall be documented and maintained with the SDPPP. Adverse weather conditions include dangerous weather-related events (e.g., flooding, wildfires, hail, or lightning) that make site inspection dangerous for worker safety.

3. Inspection Report

All inspection reports shall include, at a minimum, the following items:

- (a) The personnel who conduct the inspections;
- (b) Date(s) on which inspection was performed;
- (c) A written summary of major observations, including observation of deficiency;
- (d) A summary of evidence of potential contaminants, failure of a best management practice, or alteration of management structure or runoff pathway, etc.;
- (e) Actions that should be taken to correct noted deficiencies;
- (f) Photo documentation of findings at the Site, if necessary; and
- (g) The signature of the delegated official of the Permittees and certification of findings, including observation of no deficiency.

G. REPORTING

1. Annual Compliance Status Reports

The Permittees shall submit an Annual Compliance Status Report. The reporting period is from January 1 to December 31. This report, due on March 1 of the following year, shall include the following:

- (a) For each SMA (or Site), a summary of the Site-specific compliance status during the report period;
- (b) Discharge Monitoring Report (DMR) using the same sample form provided in Appendix D, which show the results available during the reporting period and that include the following information required below in (i) through (v) below;
 - (i) SMA and associated Outfall and Site(s) numbers/identifications;
 - (ii) Monitoring results available during the reporting period;
 - (iii) Identification of pollutants that exceed the applicable MTAL or ATAL;
 - (iv) Description of control measures installed, including the completion date;
 - (v) Description of corrective actions required under Part I.D of this Permit to be taken, or having been taken, including completion date or targeted completion date, and Progress update;
- (c) Identification of Sites which meet No Exposure status;
- (d) Highlights of any change of compliance status from the previous Annual Compliance Status Report;

(e) Lists of requests, including any requests for change of monitoring location or Site deletion and any requests to place a Site or Sites into Part I.D.4 Alternative compliance; and

(f) A summary of inspections performed in accordance with Parts I.F.1 and 2, as well as for any visual inspections performed under Part I.D.

EPA may require the Permittees to submit additional information. This report shall be signed, certified, and dated in accordance with 40 CFR 122.22(b). In addition to electronic and hard copy reports to the EPA Region 6 Enforcement Division, copies of this report in electronic format (e.g., compact discs or other acceptable media) shall be submitted to EPA 6WQ-PP and the NMED-SWQB no later than March 1 of each year. A copy of each report shall be kept with the facility's SDPPP and a copy of the most current Annual Compliance Status Report shall be maintained on the LANL Individual Permit public website.

H. OTHER CONDITIONS

1. Soil Disturbance Associated with the Installation of Control Measures

If the installation of control measures at a Site involves soil disturbance of Site-affected soils, the Permittees shall take all necessary steps to minimize migration of sediments and runoff from disturbed sites. Steps taken to minimize discharges of contaminated runoff during remediation activity shall be included in the SDPPP update. The Permittees shall conduct site inspections once a week to ensure sediment and runoff control measures are maintained in good order. Corrective actions shall be taken immediately if deficiencies of sediment and runoff control measures are noticed either by inspectors or contractors. After completion of such mitigation measures, the Permittees shall reactivate the sampler and analyze the storm water sample in accordance with Part I.C.6.

Storm water discharges associated with construction activity disturbing 1 acre or more are not covered under this permit. Storm water discharges associated with construction activity disturbing one acre or more must be covered under EPA's Construction General Permit (CGP) or through a separate individual NPDES permit.

2. Deletion of Site

The Permittees may submit a written request to remove a Site from coverage under the Permit if the Permittees can demonstrate that the Site no longer has "storm water discharges associated with industrial activity" under 40 CFR 122.26(b)(14) as follows:

(a) No industrial activities as specified under 40 CRF 122.26(b)(14) ever took place at the Site;

(b) Site-related pollutants have never been exposed, or will no longer be exposed, to storm water. A request to EPA to remove a Site meeting the conditions of this Part shall include documentation that demonstrates historic activities that led the Site to be a SWMU or

AOC did not result in significant materials exposed to storm water (e.g. Site-related pollutants are a minimum of 3-ft below the ground surface, below existing building), or that any later installed control measures will prevent pollutants of concern from being exposed to storm water; or

(c) Sites have no significant materials remaining that are exposed to storm water after installation of permanent control measures. For all SMAs that contain the Site a minimum of two confirmation storm water samples were collected, no pollutants exceeded the applicable TALs, and therefore, the Permittees demonstrated that the Site is no longer considered an industrial activity for areas where industrial activity has taken place in the past and pursuant to 40 CFR 122.26(b)(14); or

(d) The Permittees certified corrective action complete under Part I.D.2(b)(ii) by removing soil that contained a release of Site-related pollutants that were exposed to storm water and demonstrating that no significant materials from previous industrial activity remain in the Site. A request to EPA to remove a Site meeting the conditions of this Part shall include the certification of correction action complete under Part I.D.2(b)(ii) and storm water confirmation sampling results; or

(e) The EPA has approved an SSD that demonstrates that no applicable TAL exceedances are reasonably expected to be Site-related, for all SMAs identified to contain the Site in Appendix A. A request to EPA to remove a Site meeting the conditions of this Part shall include the EPA approved SSD(s) pursuant to Part I.D.1(b). The Permittees are required to certify that all on-site control measures will be properly maintained.

EPA may approve such a request in writing by issuing a minor permit modification pursuant to 40 CFR 122.63(e)(2). Documents to support such requests and decisions must be kept with facility's SDPPP and published on the LANL Individual Permit public website. Once a Site is removed from the Permit, a discharge of contaminated runoff is no longer authorized by this Permit.

3. Watershed Protection Approach

EPA encourages the Permittees to voluntarily install watershed-based control measures, such as sediment barriers, to mitigate sediment or storm water runoff reaching the main channels of the canyons and/or the Rio Grande. The Permittees should include information and monitoring data regarding the installation of any such watershed-based control measures in the Annual Report or the SDPPP. If the Permittees submit to EPA a Watershed Protection Plan which can demonstrate significant reduction of pollutants from being discharged into major canyons and therefore will result in improvement of receiving water quality, EPA may consider such a Watershed Protection Plan as alternative compliance for associated Sites within the scope of the Plan.

4. No Confirmation Sample Collected during the Permit Period

This Part applies to the following three circumstances in which: (1) no confirmation sample has been collected for a Site or Sites within an SMA, or (2) no confirmation

sample has been collected following installation of an enhanced control under Part I.D.2(a), or (3) no confirmation sample has been collected following soil removal actions completed under Part I.D.2(b). For any of these three circumstances the Permittees shall inspect and maintain all existing controls in accordance with Part I.A. The Permittees may make a determination that existing control measures and topography are capable of retaining a volume of storm water runoff from a Site or SMA that is equivalent to a 3-yr, 24-hr storm or greater. This determination may be made based upon a site survey and/or field evidence that the SMA did not discharge storm water during a 3-yr, 24-hr storm or greater event and all sampling equipment was fully functional during the storm event.

5. Record Keeping

The Permittees shall retain records of all monitoring information and reports, Site inspections and reports, decision-making procedures and supporting documents and records, and annual SDPPP updates with supplemental information for at least three (3) years after the issuance of the next permit renewal.

6. Permit Modification

Any changes to monitoring and/or control measure requirements made to the Permit shall be addressed in the Annual Report and in the annual SDPPP update.

7. Permit Compliance

Any noncompliance with any of the requirements of this Permit, except for exceptions provided in the permit, constitutes a violation of the CWA. Failure to take any required corrective actions constitute an independent violation of this Permit and the CWA. Where corrective action is triggered by an event that does not itself constitute Permit noncompliance, such as an exceedance of applicable TALs, there is no violation of the Permit, provided the Permittees take the required corrective action within the relevant deadlines.

8. Public Involvement

(a) Individual Permit Public Website: The Permittees shall maintain a public website where information on the Permit, including the SDPPP, Annual Reports, Inspection Reports, DMRs, transmittal correspondence including alternative compliance requests between Permittees and EPA, and other relevant data and documents, will be made available. A copy (either paper or electronic) of these documents will also be made available by the Permittees as soon as practicable to any member of the public who makes such a request in writing. Confidential Business Information (CBI) may not be withheld from regulatory agencies but may be withheld from the public. All portions of the SDPPP not identified as CBI, pursuant to 40 CFR Part 2, must be provided to the public upon request.

(b) E-mail notification: The Permittees will provide the opportunity for members of the public to register for and receive e-mail notifications on compliance with the Permit on the public web site. E-mail notifications will provide notice of completion of installation of baseline

control measures, updates on Permit compliance, any requests for time extensions, spill information, and notification of any modification to the Permit or SDPPP including changing SMA locations, removing, deleting, or adding Sites, and completion of corrective actions. Such notifications will have a direct link to the specific document to which it relates. Notice will also be provided for any request to complete correction action under Alternative Compliance, Part I.D.4 of the Permit.

(c) **Public Meetings:** The Permittees shall publish a public notice and send an e-mail notification to members of the public who have registered as provided in Part I.H.8(b) about public meetings that will be held approximately every six (6) months. The Permittees shall update the public on implementation of and compliance with the Permit and provide an opportunity for both written and oral public comment. The meetings may be combined with other public meetings, but the Permittees shall provide a discrete, separate time for comment and discussion of this Permit. The Permittees shall e-mail a draft agenda at least one (1) week before the meeting, publish the draft agenda on the LANL Individual Permit public website, and consider suggestions from the public for changes or additions to the agenda. The Permittees will publish the final agenda on the LANL Individual Permit public website no later than three (3) days before the meeting.

I. WATER QUALITY-BASED EFFLUENT LIMITS

The Permittees must control discharges from all Sites (individually or collectively) as necessary to ensure such discharges will not cause or contribute to a violation of applicable water quality standards. EPA believes that compliance with the non-numeric technology-based effluent limitations and other terms and conditions of this Permit will control discharges as necessary to meet applicable water quality standards.