

Permit



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Date: October 21, 2002
Refer to: RRES-WQH: 02-347

Mr. Everett Spencer
Environmental Specialist
Water Enforcement Branch (6W-EN)
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

SUBJECT: REQUEST FOR APPROVAL OF THE LABORATORY'S NPDES STORM WATER COMPLIANCE MONITORING PROGRAM FOR CONVENTIONAL INDUSTRIAL ACTIVITIES

Dear Mr. Spencer:

The Laboratory's Surface Water Assessment Team (SWAT) has recently completed a Data Quality Objective (DQO) Process for NPDES Storm Water Compliance Monitoring for Conventional Industrial Activities under the Laboratory's Multi Sector General Permit (MSGP). The process was conducted as a means to reach concurrence with the U.S. Environmental Protection Agency (EPA) and New Mexico Environment Department (NMED) on the Laboratory's monitoring approach required by the MSGP.

The SWAT consists of representatives from the Laboratory, DOE, NMED Surface Water Bureau, NMED Hazardous Waste Bureau, and the NMED DOE Oversight Bureau. The Team met approximately once per week for several months to work through the steps of the DQO Process. Notes of each meeting that summarized the approaches and decisions were distributed to participants and EPA for review to assure consensus on results of each meeting. Attached for your review is the DQO Process Outputs for NPDES Storm Water Compliance Monitoring for Conventional Industrial Activities.

The Laboratory has concurred with the enclosed DQO Process Outputs for NPDES Storm Water Compliance Monitoring for Conventional Industrial Activities and we are requesting your approval of this monitoring program. The Laboratory's Water Quality Group (RRES-WQH) and DOE staff would like to schedule a meeting with EPA and NMED staff in Dallas to discuss our findings from the DQO Process and resulting monitoring program. I will be contacting you to schedule such a meeting.



Please contact Steve Veenis at (505) 667-0013 or Mike Saladen at (505) 665-6085, if you have questions or need additional information regarding the Laboratory's Storm Water Permit Program.

Sincerely,

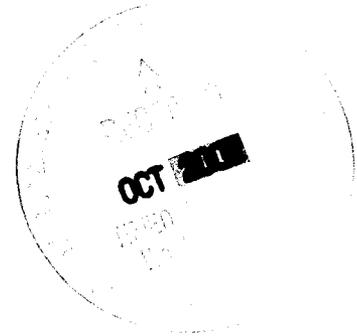


Steve Veenis
Regulatory Compliance and Line Services Team
Water Quality & Hydrology Group

SV/tml

Enclosures: a/s

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1.0 Introduction

In January of 2002, the Laboratory began a Data Quality Objective (DQO) process to plan data collection that would meet the NPDES Storm Water Multi-Sector General Permit (MSGP) compliance monitoring requirements. The DQO process was employed not only to ensure acceptable data, but as a means to develop consensus with the New Mexico Environment Department (NMED), and the U.S. Environmental Protection Agency (EPA) on the Los Alamos National Laboratory's MSGP monitoring approach. This document summarizes the results of applying the DQO process to develop a MSGP compliance monitoring design.

This effort was expected to:

- Improve communication with EPA and NMED on storm water issues
- Get regulator input into the storm water monitoring plan
- Verify that the assignment of industrial activities into the MSGP sectors has been appropriately completed
- Define "representative sample" and assure that samples are collected properly at industrial activity sites
- Obtain EPA approval of the Laboratory's NPDES Storm Water Compliance Monitoring Program

The DQO team consisted of representatives of the Laboratory, DOE, NMED DOE Oversight Bureau, NMED Surface Water Quality Bureau, and NMED Hazardous Waste Bureau. The team met approximately once per week to work through the steps of the DQO process. Notes of each meeting that summarized the approaches and decisions were distributed to participants and EPA for review and comment to ensure consensus on the results of each meeting. A DQO process chronicle of events is included as Attachment A to this document.

2.0 Problem Statement

The DQO team agreed on the following problem statement:

Storm water that flows over industrial facilities can pick up benchmark pollutants such that the water may have concentrations of pollutants above benchmark values and have the potential to transport these pollutants to surface water.

3.0 Identify the Decision

The DQO team specified the decision statement for the MSGP storm water compliance monitoring to be:

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Storm water from *defined industrial activities at LANL* may contain pollutant concentrations above *Multi-Sector General Permit benchmarks*. The quality of storm water must be monitored and reported. If storm water quality is found to be above benchmark(s), *develop and implement Storm Water Pollution Prevention Plan Modification(s)*.

Based on the problem statement and decision, the DQO team defined an approach to compliance monitoring for storm water under the MSGP:

Industrial Activities that will have MSGP compliance monitoring of storm water:

- Conventional industrial activities (all sectors except L and K)
- TSDs that are identified in the RCRA Operating Permit (Sector K)
- MDAs that are active landfills (Sector L with Sector K benchmarks added)

Under this approach, the DQO team addressed the compliance monitoring at conventional industrial activities that require MSGP compliance monitoring of storm water. This document describes the results of that effort. Recommendations for compliance monitoring of SWMUs will be provided upon completion of the DQO process for SWMUs.

4.0 Identify the Inputs to the Decision

Three major inputs to the decision for each conventional industrial activity were determined by the DQO team. These inputs are described in the following sections 4.1-4.

4.1 Identification of industrial activities at LANL and assignment of those activities to sectors defined in the MSGP. The industrial activities are shown in Table 4-1.

Table 4-1 Los Alamos National Laboratory Industrial Activities under the Multi-Sector General Permit		
Conventional Industrial Activities	Assigned Station	Comments
TA-3-22 Power Plant (Sector O)	E121	
TA-3-38 Metal Shop (Sector AA)	E122	
TA-3-39 Metal Shop (Sector AA)	E243.5	
TA-3-66 Foundry/Plating Shops (Sector F)	E122.3	
TA-3-73 Asphalt Batch Plant (Sector D)	E122.2	
TA-60 Metals Recycling Facility (Sector N)	E122.4	
TA-60 Motor Pool (Sector P)	E122.5	Visual Monitoring Only

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Sector K- Treatment, Storage and Disposal Facilities (Hazardous waste treatment, storage, or disposal (TSD) facilities, including those that are operating under interim status or a permit under Subtitle C of RCRA)	Assigner Station	Comments
TA-3-29 Wing 9 Basement		No Exposure Certification needed
TA-14-23 Firing point & burn cage	E262	
TA-16-88 Container Storage		No Exposure Certification needed
TA-16 Burn Grounds including structures; 16-387, 16-388, 16-394, 16-399, 16-401, 16-406 and 16-1409	E257	
TA-36-8 Firing Point 8	E267.5	
TA-39-6 Firing Point 6	E274	
TA-39-57 Firing Point 57	E274	
TA-50 including structures; 50-1, 50-37, 50-69 and 50-114	E201.1 E201.3	
TA-54 Area G including structures; 54-8, 54-36, 54-48, 54-49, 54-144, 54-145, 54-146, 54-147, 54-153, 54-224, 54-229, 54-230, 54-231, 54-232, 54-283, 54-375, 54-1027, 54-1028, 54-1029, 54-1041, CHAPS, TWISP 1, TWISP 2, TWISP 4, Drum Prep Facility, DVRS, Pit 37 and Shaft 124	E227 E247 E248 E248.5 E249 E249.5	No Exposure Certification may apply at some sites.
TA-54 West including structures; RANT 54-38 High Bay, Low Bay, Loading Dock and Pad adjacent to RANT	E220	
TA-54 Area L including structures; 54-32, 54-35, 54-36, 54-215, 54-216, Shafts 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 36, 37, Surface Impoundments B, C and D	E223	No Exposure Certification may apply at some Sites.
TA-55 including structures; 55-4 Areas 8, 9, 10, Basement Areas 1-7 and 12, Outdoor Pad, 55-185 and Vitrification Slab tanks	E196	No Exposure Certification may apply at some sites.
Sector L - Landfills Including Those Subject to Regulation Under Subtitle D of RCRA	Assigner Station	Comments
TA-16, MDA-P	E256	Site is undergoing Clean Closure
TA-54, MDA-G	E227 E247 E248 E248.5 E249 E249.5	No Exposure Certification may apply at some sites.
TA-54, MDA-H		No Exposure Certification may apply.
TA-54, MDA-J	E221	2 temp stations for closure
TA-54, MDA-L	E223	No Exposure Certification may apply.
TA-39, MDA-Y	E274	No Exposure Certification may apply.

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4.2 Specification of what storm water monitoring data is required: representative samples, location of sampling points. A representative sample for storm water benchmark monitoring purposes should reflect what best produces “conservative or worst case” information from an industrial facility. The Team agreed the following statement is the acceptable definition for “representative sample”:

“Storm samples are collected from a representative sampling location when the sampling station(s) collect storm water runoff which represents runoff from the majority of the exposed industrial activity and minimizes the storm water collected from areas up slope of the industrial activity. All samples will be collected in accordance with the procedures set forth in the Storm Water Monitoring Plan developed by RRES-WQH (October 2001).”

Sampling locations were determined by the DQO team on a site-by-site basis based on maps, plans, and field visits. These are summarized in Section 8.0.

4.3 What analyses will be done on the samples collected and what results will be reported in the Discharge Monitoring Reports (DMRs). The required analyses include field-based evaluations, visual monitoring, approved EPA methodologies and water quality analysis by certified laboratories.

To meet the visual monitoring requirements of the MSGP the Laboratory has developed an inspection form to be completed by field sampling crews when they go out to retrieve the bottles from the ISCO samplers. In the near future, the Laboratory will recommend that facility personnel to complete the inspections during rain events. A guidance document will be developed to help facility personnel implement the new approach.

The SWAT supported this approach but would recommend additional documentation regarding corrective actions in response to site inspections; (i.e., if sheen were noted, identify corrective action). The form should include a trigger for action and estimates for completion dates. Since the monitoring station locations have been selected by the SWAT to be representative of the industrial activities, there was general agreement that when implemented, this would meet the visual monitoring requirements. NMED representatives requested copies of the guidance and the form (Attachment B).

Storm water samples collected will be analyzed for the benchmark parameters in the MSGP using analytical methods required in 40 CFR 136. The results of these analyses will be reported in the Discharge Monitoring Reports.

5.0 Define Study Boundaries

The study boundaries for each industrial activity were agreed to be:

- Spatial: samples must be collected at the furthest downstream point from an industrial activity prior to the storm water entering waters of the United States, unless waiver provisions apply; and,

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- Temporal: Once a quarter in the second year (10/31/01-9/30/02) and fourth year (10/1/03 - 9/30/04) of the Multi-Sector General Permit.

6.0 Develop a Decision Rule

The decision rule will be used when data are collected at the specified locations and frequencies to determine if LANL is in compliance with the monitoring requirements under the MSGP. The DQO team agreed on the following decision rule:

At every sampling point for industrial activities, if any analytical result for a benchmark constituent is above the benchmark value for the industrial activity, then evaluate the need for Storm Water Plan Modification, BMPs and/or corrective actions.

7.0 Specify the Limits on Decision Errors

The DQO team concurred that if the data were collected following procedures and analyzed by certified laboratories, and in accordance with MSGP protocol the resultant data will be adequate for basing a decision about compliance with NPDES storm water monitoring requirements.

- The Quality Assurance/Quality Control requirements are specified in the LANL Storm Water Monitoring Plan (October 2001). These include LANL Standard Operating Procedures applicable to sampling surface water and certification of the analytical laboratory to perform water quality analyses. Copies were provided to NMED and EPA.
- Analytical methods are specified in the MSGP as those described in 40 CFR 136.

8.0 Optimize the Design for Obtaining Data

A step-wise evaluation to developing the approach to storm water compliance monitoring was agreed upon. Steps one through three were completed. The steps are:

- 1) Conventional Industrial Activities (all MSGP sectors except K and L)
 - Existing list of permitted facilities were reviewed and assumed to be accurate based on information provided by LANL (types of industrial activities occurring at LANL to be evaluated periodically),
 - Evaluate current monitoring locations and processes and make recommendations to improve monitoring approach, if necessary.
- 2) Treatment, Storage and Disposal Facilities (TSDF) (MSGP - Sector K)
 - Identify the TSDFs on current RCRA Permit.

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- Evaluate current monitoring locations and processes and make recommendations to improve monitoring approach, if necessary.
- Apply for “no exposure certification” where appropriate.

3) Material Disposal Areas (MDAs) or Landfills (Sector L)

- It was proposed that several MDAs be categorized as Landfills and not as SWMUs as defined by the current approach.
- Identify candidates for monitoring waiver based on depth of waste, erosion potential, MDA H process. Apply for “no exposure certification” where appropriate.
- For remaining MDAs and Landfills, evaluate current monitoring locations and processes and make recommendations to improve monitoring approach, if necessary.

Based on the proceeding steps, the Laboratory will update internal sampling plans, quality assurance plans, etc., to incorporate the recommended changes to the monitoring program. A follow up action plan will be developed to list all DQO related recommendations, schedule and prioritize actions and obtain the necessary funding to complete the actions.

8.1 Conventional Industrial Facilities

The SWAT agreed that a realistic approach to evaluating conventional industrial activities is to review existing site drainage maps and Storm Water Pollution Prevention Plans (SWPPPs) for the five identified industrial facilities. The team then conducted a field site visit to answer questions and field verify whether current sampling stations collect representative samples. Based on this review, the SWAT prepared the recommendations needed to improve the monitoring process (Table 8-1).

Table 8-1: Storm Water Monitoring Recommendations for Conventional Industrial Activities at Los Alamos National Laboratory		
Location of Activity	Recommendation	Rationale
TA-3-22 Power Plant	Remove E121 from tributary drainage and install at culvert which discharges on the east side of facility near fence line.	E121 is located in an adjacent tributary drainage south of main facility.
TA-3-38 Metal Shop	Recommend moving station E122 to manhole on southeast corner of 3-38 or to the culvert that daylights near the Library.	E122 is located +/- 1 mile downstream.
TA-3-39 Metal Shop	No changes at this time.	
TA-3-66 Sigma	No changes at this time.	
TA-3-73 Asphalt Plant	No changes at this time.	

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8.2 Treatment, Storage, Disposal Facilities (TSDF)

The SWAT agreed that a realistic approach to evaluating activities at TSDFs is to review existing site drainage maps and Storm Water Pollution Prevention Plans (SWPPPs) for the facilities identified on the Laboratory's current RCRA Operating Permit. The team then conducted a field site visit to answer questions and field verify whether current sampling stations collect representative samples. Based on this review, the SWAT prepared recommendations needed to improve the monitoring process (Table 8-2).

Table 8-2: Storm Water Monitoring Recommendations for Treatment, Storage, and Disposal Facilities at Los Alamos National Laboratory		
Location of Activity	Recommendation	Rationale
TA-3-29 CMR	Complete "no exposure certification" for TSDFs not exposed to storm events.	EPA allows a "no exposure certification" for industrial activities not exposed to storm water runoff.
TA-14-23 Open Detonation	*Install single-stage sampler or similar device below regulated activity.	E262 is located +/- 4 miles downstream.
TA-16-88 Container Storage	Complete "no exposure certification" for TSDFs not exposed to storm events.	EPA allows a "no exposure certification" for industrial activities not exposed to storm water runoff.
TA-16 Burning Grounds	No changes at this time	
TA-36-08 Minie Site	*Install single-stage sampler or similar device below regulated activity.	E267.5 is located +/- 4 miles downstream.
TA-39-6	*Install single-stage sampler or similar device below regulated activity.	E274 is located +/- 2 miles downstream.
TA-39-57	*Install single-stage sampler or similar device below regulated activity.	E274 is located +/- 2 miles downstream.
TA-50	Complete "no exposure certification" for TSDFs not exposed to storm events.	EPA allows a "no exposure certification" for industrial activities not exposed to storm water runoff.
TA-54 Area G	Discontinue the collection of MSGP related samples from E247 (G1)	No TSDFs, SWMUs or other regulated industrial activities were observed within the G1 drainage area. WMP may want to continue monitoring.
TA-54 MDA-L	Complete "no exposure certification" for TSDFs not exposed to storm events.	EPA allows a "no exposure certification" for industrial activities not exposed to storm water runoff.
TA-54 West	No changes at this time	

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Table 8-2: Storm Water Monitoring Recommendations for Treatment, Storage, and Disposal Facilities at Los Alamos National Laboratory		
Location of Activity	Recommendation	Rationale
TA-55	Install new monitoring station to collect runoff from outdoor storage pads.	Runoff from the storage pad is not currently monitored.
	Complete "no exposure certification" for TSDFs not exposed to storm events.	EPA allows a "no exposure certification" for industrial activities not exposed to storm water runoff.

*RRES-WQH's Operations Team will assess potential for single-stage sampler. Other options may be available.

8.3 Material Disposal Areas (MDAs)

There was a preliminary consensus at previous meetings that Material Disposal Areas (MDAs) would be considered landfills (Sector L) for the purposes of compliance monitoring under the Multi-Sector General Permit. However, many of the MDAs include SWMUs. There was discussion about how to conduct compliance monitoring for MDAs. The discussion items were:

- In the previous 1995 MSGP, the sites that were considered Sector L landfills were MDA-J, MDA-L, MDA-G and MDA-P. This was based on their identification as TSDFs in the RCRA operating permit and that they are active landfills. Currently, MDAs G, H, J, L, P and Y are identified on the RCRA permit.
- If MDAs are considered singular landfill units, the SWMUs (Sector K benchmarks) within the MDA would be monitored in addition to Sector L benchmarks and would be included in the DMRs if the erosion matrix score was greater than 40. The DOE/OB suggested that RCRA parameters also be analyzed and reported on DMRs. Currently, RCRA parameters would be analyzed under the Watershed Management Program or Environmental Surveillance Program, but are not required by the MSGP.
- Some MDAs may qualify under the no exposure provision in the MSGP.
- MDAs that have been cleaned up or do not have the potential to impact surface water quality (e.g., low erosion matrix scores) should not be monitored under the MSGP. The NMED/HWB will need to "verify" that a "cleanup" is acceptable prior to this designation.
- NMED/HWB is concerned about MDAs where there is currently waste in place.
- MDAs that are active landfills should have compliance monitoring under the MSGP; inactive MDAs should have monitoring under the Watershed Management Plan or Environmental Surveillance Program.

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The SWAT agreed that a realistic approach to evaluating activities at landfills is to review existing site drainage maps and Storm Water Pollution Prevention Plans (SWPPPs) for the landfills identified on the Laboratory's current RCRA Operating Permit or HSWA Module VIII. The team then conducted a field site visit to answer questions and field verify whether current sampling stations collect representative samples. Based on this review, the SWAT prepared recommendations needed to improve the monitoring process (Table 8-3).

Location of Activity	Recommendation	Rationale
TA-16 MDA-P	No changes at this time	
TA-39 MDA-Y	Complete "no exposure certification" for TSDFs not exposed to storm events.	EPA allows a "no exposure certification" for industrial activities not exposed to storm water runoff.
TA-54 Area G	Complete "no exposure certification" for pits and shafts not exposed to storm events.	EPA allows a "no exposure certification" for industrial activities not exposed to storm water runoff.
TA-54 MDA-L	Complete "no exposure certification" for shafts not exposed to storm events.	EPA allows a "no exposure certification" for industrial activities not exposed to storm water runoff.
TA-54 MDA-J	Support for two temporary monitoring stations used for site closure	Collection of data to support closure activities until final stabilization is achieved.
TA-54 MDA-H	Complete "no exposure certification" for shafts not exposed to storm events.	EPA allows a "no exposure certification" for industrial activities not exposed to storm water runoff.

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Data Quality Objective (DQO) Chronicle of Events Attachment A

January 3, 2002 – Memo drafted to Jim Davis (NMED/SWQB) and John Parker (DOE/OB) from LANL requesting participation in the Multi-Sector General Permit (MSGP) Storm Water Monitoring Data Quality Objective (DQO) process.

February 15, 2002 – Memo drafted to LANL from Jim Davis and John Parker agreeing to participate in the process. DOE/OB staff members are to act as primary participants on behalf of the NMED. They are instructed to consult with members of NMED/SWQB and NMED/HWB to ensure that the stated desire of collecting the necessary type, quality and quantity of data is met.

February 19, 2002 – Final Surface Water Assessment Team Meeting Minutes for January 10, 2002 are submitted. Highlights of meeting: Kickoff DQO process, MSGP monitoring focus and schedule of future meetings.

February 19, 2002 – Final Surface Water Assessment Team Meeting Minutes for January 23, 2002 are submitted. Highlights of meeting: Sector-specific monitoring requirements for MSGP, watershed based monitoring not applicable to MSGP, compliance related monitoring should not be required for every SWMU at LANL, SWMUs are a “tough fit” for coverage under MSGP, more extensive monitoring in addition to compliance monitoring may be warranted and DQO “straw man” proposed.

February 19, 2002 – Final Surface Water Assessment Team Meeting Minutes for February 6, 2002 are submitted. Highlights of meeting: Review of January 30, 2002 meeting discussions with LANL, NMED and EPA, develop stepwise approach to compliance related monitoring and discussion of ideas to determine “substantially identical outfalls” for SWMUs.

February 25, 2002 – Final Surface Water Assessment Team Meeting Minutes for February 12, 2002 are submitted. Highlights of meeting: Erosion potential scoring process (SOP 2.01), MSGP at other DOE facilities, site drainage map issues and continued discussion of “substantially identical outfalls” for SWMUs.

March 5, 2002 – Final Surface Water Assessment Team Meeting Minutes for February 19, 2002 are submitted. Highlights of meeting: Material Disposal Areas (MDAs), HSWA consolidated units, agreement that initial focus would be on “conventional industrial activities” and SWMU related monitoring will follow.

April 11, 2002 – Final Surface Water Assessment Team Meeting Minutes for March 21, 2002 are submitted. Highlights of meeting: Review of meeting minute process, discussion of representative sampling, finalize site drainage map format, review of conventional industrial activities at TA-3-22 Power Plant, TA-3-73 Asphalt Batch Plant, TA-3-38 Metals Shop, TA-3-39 Metals Fabrication and TA-3-66 Sigma Complex.

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May 1, 2002 – Final Surface Water Assessment Team Meeting Minutes for April 10, 2002 are submitted. Highlights of meeting: RCRA-based approach to storm water monitoring, Treatment Storage & Disposal Facilities (TSDF) and review of conventional industrial activities at TA-54 Area G.

May 1, 2002 – Final Surface Water Assessment Team Meeting Minutes for April 16, 2002 are submitted. Highlights of meeting: Anticipated Draft Order coming from NMED, RCRA and CWA monitoring considerations and review of conventional industrial activities (TSDF) at TA-55 Plutonium Facility and TA-16 Burn Grounds.

May 29, 2002 – Final Surface Water Assessment Team Meeting Minutes for April 30, 2002 are submitted. Highlights of meeting: Pollution Prevention Award for SWAT, definition of representative sample and review of conventional industrial activities (TSDF) at TA-54 West and TA-14 Open Detonation Site.

June 10, 2002 – Final Surface Water Assessment Team Meeting Minutes for May 8, 2002 are submitted. Highlights of meeting: LANL's current Storm Water Monitoring Plan provided to NMED, continued discussion on representative sampling, Draft Order implications and review of conventional industrial activities (TSDF) at TA-16 Area P, TA-54 Area L and TA-50 Radioactive Liquid Waste Treatment Facility.

June 10, 2002 – Final Surface Water Assessment Team Meeting Minutes for May 22, 2002 are submitted. Highlights of meeting: LANL's Storm Water Monitoring Plan, continued discussions on RCRA-based approach to monitoring storm water and review of conventional industrial activities (TSDF) at TA-36 Minie Site, TA-39 Firing Sites and TA-39 Area Y

June 27, 2002 – Final Surface Water Assessment Team Meeting Minutes for May 29, 2002 are submitted. Highlights of meeting: Continued discussions on May 2, 2002 Draft Order, approach to satisfying SWMU monitoring requirements under RCRA, visual monitoring requirements and review of conventional industrial activities (TSDF) at TA-54 Area J and TA-54 Area H.

August 28, 2002 – Begin DQO process for SWMU related monitoring.

September 6, 2002 – Final comments received regarding language for Conventional Industrial Activity DQO Summary.

Attachment B

**MULTI-SECTOR GENERAL PERMIT
STORMWATER VISUAL INSPECTION
GUIDELINES**

DRAFT

**RRES - Water Quality and Hydrology Group
Los Alamos National Laboratory**

September 2002

MSGP STORMWATER VISUAL INSPECTION GUIDELINES

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MSGP STORMWATER VISUAL INSPECTION GUIDELINES

1.0 PURPOSE

This procedure is written to provide requirements for conducting visual monitoring under facility specific Storm Water Pollution Prevention Plans (SWPPP).

2.0 SCOPE

Requirements set forth in this document apply to Los Alamos National Laboratory facilities covered by the National Pollutants Discharge Elimination System (NPDES) Storm Water Multi-Sector General Permit (MSGP). Inspections may not be required for discharges exempted under the representative discharge provision. Inspection waivers are granted for adverse weather conditions and unstaffed or inactive sites.

3.0 DEFINITIONS

- 3.1 Adverse weather conditions – weather that prohibits collection of samples such as local flooding, high winds, hurricanes, tornadoes, electrical storms, ect. Could also include drought, extended frozen conditions, etc.
- 3.2 Best Management Practices (BMPs) – Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce pollution. BMPs can also include treatment requirements, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.
- 3.3 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.
- 3.4 Oil sheen – the presence of rainbow like colors glistening on the surface of the liquid. The color of oil sheen will vary dependent on thickness and consistency.
- 3.5 Color – unpolluted water will be clear and colorless. Color should not be confused with clarity.
- 3.6 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, sewage, diesel, sulfuric, or detergent odors.

- 3.7 Clarity – clearness or cleanness of appearance. This includes the visual observation of suspended sediment.
- 3.8 Floating solids – particulate material floating on the surface of the water. Examples include: leaves, pine cones, pine needles, dead grass, twigs, branches, and common trash.
- 3.9 Settled solids – settled particulate material i.e. heavier than water. Examples include sand, gravel, metal turnings, and glass.
- 3.10 Suspended solids – particulate materials that are floating between the bottom of the sample and the surface of the water.
- 3.11 Representative discharge – two or more outfalls that are reasonably believed to discharge substantially identical effluents.
- 3.12 Unstaffed and Inactive Sites – a facility maintaining certification with SWPPP that it is inactive and unstaffed and visual examinations are not feasible.

4.0 ROLES AND RESPONSIBILITIES

- 4.1 Pollution Prevention Team – Responsible for collecting samples and completing required documentation. Personnel will be fully knowledgeable of the site specific SWPPP. Whenever practicable the same person should carry out the inspection and examination of the discharges throughout the life of the permit to ensure consistency in interpretation of results. Further, team members should be familiar with facility operations so that potential pollution discharge sources can be determined.

5.0 PROCEDURE

- 5.1 Visual examinations of storm water discharge shall be conducted quarterly for each discharge point covered by the MSGP and the site specific SWPPP.
- 5.2 A grab sample will be collected during daylight hours in a 1 liter wide mouth clear glass bottle within 30 minutes of discharge if practicable, but no later than one hour after discharge. The sampler will document the reason a sample could not be collected within 30 minutes.
- 5.3 Complete Attachment A: MSGP Stormwater Visual Inspection Form.
 - 5.3.1 Complete top section of form including location, date and time, person performing inspection, and inspection quarter.
 - 5.3.2 Provide documentation if sample is not collected within 30 minutes of discharge.

5.3.3 Describe sample parameters. Refer to section 3.0 Definitions.

Odor – describe any odors that may be observed in the discharge. Caution: any unusual odors should be documented, and sampler shall leave the site immediately.

Color – describe the color of the discharge.

Clarity – Clarity can be described as the depth in which you can look into or through water. For example an individual can see through a clear glass of clean water in daylight. Generally the clarity of the water is a good visual indicator of the purity of water. If the water is poor in clarity there is most likely suspended solids throughout the water.

Floating solids – Note any floating solids in the sample. Careful examination should determine whether the solids are raw or waste materials.

Settled solids – Note any settled solids in the sample. Settled solids may be an indicator of unstable ground cover combined with a high intensity storm water runoff event.

Suspended solids – Note any suspended solids in the sample. Most often suspended solids include fine sediment. This may be an indication of an unstable channel that may have eroding banks. Some water appears to be colored because of relatively coarse particulate material in suspension such as sediment.

Foam – note an accumulation of fine frothy bubbles formed in or on the surface of water. Describe the color of the foam.

Oil sheen – note if there is an oil sheen present, the thickness, and consistency.

Other – describe any other indicators of storm water pollution in addition to the descriptions mentioned above.

5.3.4 Site Observations:

- Note if there is any potential sources of pollutants on site.
- If yes document potential sources.
- Indicate if there are any BMPs on site.
- If yes, evaluate effectiveness.

- If no BMPs, determine if installation could correct future pollutant migration.

5.3.5 While conducting the visual examinations, the personnel should constantly be attempting to relate any pollutant that is observed in the samples to the sources of pollutants that are on the site.

6.0 GUIDANCE

6.1 A clean up of the site should be conducted if the pollutant source is known and well defined. A design change could also be incorporated into the storm water pollution prevention plan to eliminate or minimize the contaminant source from occurring in the future. Personnel should evaluate whether or not additional BMPs should be implemented in the pollution prevention plan to address the observed contaminant, and if BMPs have already been implemented, evaluating whether or not these are working correctly or need maintenance. Corrective actions must be taken if BMPs are not performing effectively. Actions should be taken within 60 days from the discovery of any pollutants.

6.2 A set of tracking or follow-up procedures must be used to ensure that appropriate actions are taken in response to the examinations.

7.0 REFERENCES

7.1 Documents

Federal Register. Final Reissuance of National Pollutant Discharge Elimination System Storm Water Multi-Sector General Permit for Industrial Activities. Federal Register: October 30, 2000, Volume 65, Number 210.

7.2 Referrals

LIR240-01-03.2 Authorization Agreement

LIR250-02-02.5 Facility-Tenant Agreement

LIR280-02-01.0 Laboratory Facility Management Program

LIR300-00-01.0 Safe Work Practices

LIR307-01-04.0 Safety Concern Program

LIR401-10-01.0 Stop Work and Restart

LIR402-10-01.4 Hazard Analysis and Control for Facility Work
LIR402-100-02.0 Hazardous Waste Operations and Emergency
Response Training Requirements

LIR402-702-01.1 ALARA

LIR402-706-01.1 Personnel Dosimetry

LIR402-1320-01.1 Vehicular Safety

In addition to these LIRs, please read any site specific requirements
before proceeding with work.

8.0 ATTACHMENTS

Attachment A: MSGP Stormwater Visual Inspection Form

MSGP STORMWATER VISUAL INSPECTION FORM

Permit Number: NMR05A734 and NMR05A735

Inspection Location: _____

Inspection Date & Time: _____

Inspection Person: _____

Inspection Quarter (Circle One): Jan-Mar, Apr-Jun, Jul-Sep, Oct-Dec

Inspection completed within first half hour of flow: Yes No

Reason if not within first half hour: _____

Sample Parameters (Provide Description)

Odor: _____

Color: _____

Clarity: _____

Floating Solids: _____

Settled Solids: _____

Suspended Solids: _____

Foam: _____

Oil Sheen: _____

Other Indicators of Possible Storm Water Pollution: _____

Site Observations

Potential Pollutants found during visual examination: Yes No

If Yes:

Potential sources of pollutants: _____

BMPs on site: Yes No

If BMPs on site are they working correctly: Yes No

If no BMPs, could installation mitigate contamination migration: Yes No