

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

memorandum

TO: SWAT Team Members
DATE: April 11, 2002
FROM: Steve Veenis/ ESH-18-ER ✓
MAIL STOP/TELEPHONE: K497/7-0013
SYMBOL: ESH-18/WQ&H:02-142
SUBJECT: **FINAL SURFACE WATER ASSESSMENT TEAM MEETING MINUTES FOR MARCH 21, 2002**

1.0 PURPOSE

The Surface Water Site Assessment Team (SWAT) recently began a new effort to review the Laboratory's Storm Water Monitoring Program for the Multi-Sector General Permit. A Data Quality Objective (DQO) process will be used to determine the adequacy of the data collected by the Laboratory's monitoring network. The SWAT role is to provide a review of Industrial Activities, SWMUs, station locations, analytical methods, Benchmark Parameters and approved monitoring waivers and to make recommendations on how to improve the overall approach.

2.0 DISCUSSION

2.1 Meeting Minutes Review

The review and comment process for the meeting minutes seems to be working appropriately for administrative purposes:

- Comments on the meeting minutes made by an actual participant regarding items discussed but left out of the minutes are to be added to a corrected version of the minutes.
- Comments on the meeting minutes made by a non-participant dealing with issues that were not actually discussed at the meeting will be placed on the agenda for the following meeting for discussion.

Comments on the last meeting minutes added by Barbara Hoditschek and Ralph Ford-Schmid include:

- Explain how MSGP compliance monitoring for SWMUs will be handled if conventional industrial facilities also have SWMUs.
- The approach of having RCRA-driven monitoring (rather than MSGP compliance monitoring) for SWMUs will not be acceptable until there is a guarantee and commitment that the SWMUs will in fact be "covered" by another LANL program.

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2.2 Representative Sampling

The previously distributed definition for representative sampling was evaluated. It pertained to SWMUs and thus was not useful for conventional industrial facilities. A representative sample should reflect what best produces "conservative or worst case" information from an industrial facility. Factors that should be defined for a representative sample are:

- Sampling location
- When the sample is taken - defined by MSGP as first 15 minutes of flow from a storm event; further defined by LANL as the first flow event from each calendar quarter.
- What media is sampled: water or water and sediment - how high up should the sample inlet tube be located in the water column to capture samples.
- What are the analytes - defined by MSGP for specific sectors but could be modified based on site history, e.g. spills.
- How long should sampling be required and what are the criteria for not sampling at a facility.

Kelly Bitner will draft a proposed definition of "representative sampling" related to conventional industrial facilities for review by the team.

2.3 Map Format

Some additions suggested for the site drainage maps being developed for the DQO process:

- Direction of drainage (arrows)
- Culverts
- SWMUs (on the HSWA permit and SOP 2.01 score >40)

2.4 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. Then the team will conduct a field site visit to answer any questions and field verify whether current sampling stations can collect representative samples. Based on this review, the SWAT will make recommendations if needed to improve the monitoring process. A field visit was conducted for these sites on March 28th and April 2nd to verify sampling locations and potential pollutant sources. The proposed sampling station locations and questions are recorded below.

TA-3-0022 Power Plant

Proposal: Install sampling station at end of culvert SWO3-22-E as identified in the Power Plant SWPPP. This site is on the eastern fence line behind the cooling towers.

Rationale: The drainage area for this culvert encompasses the majority of the TA-3 Power Plant site.

Questions and Resolution:

- The two fuel tanks (3-26 And 3-27) are not within the drainage area of culvert SWO-3-22-E. Confirm that the existing earthen berms are sufficient to retain storm water and would not impact the proposed sampling location.

The field visit included a walk around of the earthen berms surrounding the large 150,000 gallons diesel tanks. The berms (greater than 10 feet deep) appeared to be in good condition and of sufficient size to capture large storm water runoff events. There was no evidence that water could be discharged from the berms except by pumping if necessary. The proposed sampling location would not be impacted by the tanks proximity.

- In the facility SWPPP, potential sources of chlorinated solvents and heavy metals have been identified near culvert SWO-3-22-C. Determine what the sources are and what drains into this culvert.

A review of the SWPPP is being conducted by JCNNM-ENV to determine these sources.

- Identify the locations of relevant HSWA SWMUs (SWAT score >40) to determine if they affect the sampling station placement.

3-045(c) – NPDES Outfall 01A001 has an erosion score of 57.7

TA-3-0073 Asphalt Batch Plant

Proposal: Use existing sampling station E122.2

Rationale: The drainage area for this sampling station encompasses the majority of the asphalt batch plant site.

Questions:

- Identify the locations of relevant HSWA SWMUs (SWAT score >40) to determine if they affect the sampling station placement.

03-029 – Land disposal area has an erosion score of 44.3. The area has been completely isolated from Sandia Canyon by an earthen berm. The SWMU is part of consolidated unit 03-009(a)-00, which covers the entire Asphalt Batch Plant.

TA-3-0038 Metal Shop

Proposal: The storm water drainage at this site is underground and it is difficult to determine from the map which way water is flowing in the underground storm water culverts. The monitoring options are listed in order of preference:

- If one location can be identified that collects storm water for the entire site, sample that location with manhole-type sampler.
- If several drainage locations are identified, select the location that drains the metal storage area at the north end of the building and use manhole-type sampler.
- If manhole samplers are not feasible, find the nearest location where culvert daylight to install gaging station.

Rationale: Depending on the option selected, the drainage area for this sampling station should encompass at least the majority of the northern end of the metal shop where most of the activities that could impact storm water occur.

Questions:

- Verify the flow direction in the field to determine which is down gradient.
It was difficult to determine direction of flow from surface examination. However, two storm water manholes were located (NE and SE corner of 3-38), and a series of storm water catch basins were identified on the west side of 3-38. The storm drainage from the northern end of the facility appears to enter into the storm drain system on the west side of 3-38. The ideal location for monitoring would be either the catch basins or the manhole located on SE corner.
- Research the use and application of manhole-type samplers.
Operations Team is researching the availability of manhole samplers and the logistics of installing the telemetry needed to operate the system.
- Check where metal storage is located and determine whether it is exposed to storm events.
Metals storage is located in the north and west areas of the facility.
- Verify whether culverts discharge on the other side of East Jemez road towards Los Alamos Canyon.
It was field verified that culverts do not discharge under East Jemez road towards Los Alamos Canyon.
- Locate the nearest culvert that daylight east of 3-38.
The nearest culvert daylight due east of the Otowi Building (3-261) near the Library.

TA-3-0039 Metals Fabrication

Proposal: Use existing sampling station E243.5

Rationale: The drainage area for this sampling station encompasses the majority of the drainage from the metal shop.

Questions:

- Consider where a sampler might be re-located if planned construction in the area goes forward.

The re-location of E243.5 will be dependent on the construction design and the change in drainage features. The decision will have to be made at a future date.

- Identify the locations of HSWA SWMUs (SWAT score >40) to determine if they affect the sampling station placement.

No SWMUs scored higher than 40 on the Surface Water Site Assessments.

TA-3-0066 Sigma Complex

Proposal: Use existing sampling station E122.3

Rationale: The drainage area for this sampling station captures runoff from the northern part of Sigma Complex which includes the graphite storage area.

Questions:

- Consider where a sampler might be re-located to capture more sources of runoff on the northern end of facility.

The current location appears to collect runoff from the northern part of 3-66 including the graphite storage area. Culverts and vegetative cover in adjacent areas do a good job of dissipating or redirecting flows to other locations.

- Evaluate whether other areas around the facility would produce more representative samples.

Activities on the east-southeast part of the facility included metal storage areas. These areas should be addressed by the SWPPP and included in future monitoring when feasible.

- Identify the locations of HSWA SWMUs (SWAT score >40) to determine if they affect the sampling station placement.

No SWMUs scored higher than 40 on the Surface Water Site Assessments.

The next meeting is scheduled for Thursday, April 10, 9:00, at the ESH-18 Conference Room when we will begin discussion of Treatment, Storage and Disposal Facilities (TSDFs). Any exceptions taken to these minutes should be brought to the attention of Steve Veenis, 667-0013, within five (5) working days of receipt.

Participants:

Ralph Ford-Schmid
Gene Turner
Steve Veenis
Barbara Hoditschek
Kelly Bitner

SV/tml

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