John

Los Alamos
NATIONAL LABORATORY
memorandum

Risk Reduction & Environmental Stewardship Division
Water Quality & Hydrology Group
(RRES-WQH)

To/MS: SWAT Team Members
From/MS: Steve Veenis, RRES-WQH, MS K497 SV
Phone/Fax: 7-0013/5-9344
Symbol: RRES-WQH: 02-232
Date: June 10, 2002

General "SWAT"

SUBJECT: FINAL SURFACE WATER ASSESSMENT TEAM MEETING MINUTES FOR MAY 22, 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 NPDES Storm Water Monitoring Plan

The SWAT discussed storm water sample collection procedures using ISCO samplers. ISCO samplers are programmed to collect 1-liter samples every 5-minutes after a flow event begins. DOE/OB representatives expressed concern that samples may not be representative if the event lasts longer than 30-minutes. The Multi-Sector General Permit requires that a grab sample be collected within the first 30-minutes of the runoff event. The Laboratory collects time weighted composite samples.

The SWAT recommends that regardless of the frequency of aliquot sample collection during an event (1, 5, or 10 minute intervals) it is important to assure that only aliquots collected during the first 30-minutes of flow should be submitted for analysis. The time-weighted-compositing of x number of bottles collected within the first 30-minutes should be fine for meeting the requirements of the MSGP.

2.2 Follow up on April 10, 2002 Discussion on RCRA-Based Approach to Storm Water Monitoring

The potential for RCRA-based approach to storm water monitoring has been informally discussed at NMED/Hazardous Waste Bureau, NMED/Surface Water Quality Bureau, the DOE and within the Laboratory's RRES Division. Some ideas on what the impact of a RCRA-based approach would have on LANL have been compiled as part of the DQO process and will provide "talking points" for future discussion.

- Recognizes the watershed approach to storm water and surface water monitoring to adequately monitor impacts.
- Avoids dual regulation by CWA and RCRA for monitoring SWMUs.
- Provides authorization of regulating contaminant migration in surface water to NMED/HWB.
- Provides a cost savings in analytical because SWMU-specific monitoring requirements would be rotated on an annual frequency.
- More protective of the environment because more contaminants would be required for analysis.
- Would meet the intent of some issues within the Compliance Order.

2.3 Treatment, Storage, Disposal Facilities (TSDF)

TA-36-08 Minie Site

Proposal: Install a single-stage sampler within drainage that is "representative" of the discharges emitting from 36-08 firing point or construct an earthen berm that will stop any storm water runoff from leaving the site of the regulated activity.

Rationale: The existing gaging station (E267.5) is located approximately four miles downstream of site within Fence Canyon. The only other source terms that are located within this drainage is Meenie Site located approximately .5 miles upstream from Minie Site. However, due to dilution concerns the existing location for monitoring appears not to be representative.

Questions:
- Can an appropriate drainage be selected that will be representative of storm water discharges emitting from site?
- Can the geometry of the drainage selected be determined to satisfy the total flow estimated requirement?
- If it is determined that the use of single stage samplers is appropriate, then a description of how the single stage samples will be installed and sampled will be included in the approved storm water monitoring plan.
- Can a berm or retention area be installed to prevent storm water runoff from leaving site? If so, storm water monitoring may not be required.

Resolution:

A field trip was conducted at the site on May 24, 2002. The SWAT determined that an earthen berm to prevent releases was not a viable option. A site was selected for the installation of a single-stage sampler east southeast from the existing firing pad. A pin flag was placed at the selected location. Flow estimates from the drainage selected will be calculated either by using a GIS or by actual field measurements in conjunction with local meteorological rain data. The WQH-Operations Team will conduct a field assessment to determine the appropriate location for sampling storm water runoff from the site and whether or not single staged samplers are practicable.

TA-39-6 Firing Site

Proposal: Install a single-stage sampler within drainage that is "representative" of the discharges emitting from 39-6 firing point or construct an earthen berm that will stop any storm water runoff from leaving the site of the regulated activity. SWMU 39-004(c) is designated as the firing point.

Rationale: The existing gaging station (E274) is located approximately two miles downstream of site within North Ancho Canyon. Since other source terms are located both upstream and downstream within North Ancho Canyon the existing location for monitoring appears not to be representative.

Questions:

- Can an appropriate drainage be selected that will be representative of storm water discharges emitting from site?
- Can the geometry of the drainage selected be determined to satisfy the total flow estimated requirement?
- If it is determined that the use of single stage samplers is appropriate, then a description of how the single stage samples will be installed and sampled will be included in the approved storm water monitoring plan.
- Can a berm or retention area be installed to prevent storm water runoff from leaving site? If so, storm water monitoring may not be required.

Resolution:

A field trip was conducted at the site on May 24, 2002. The SWAT determined that an earthen berm to prevent releases was not a viable option. A site was selected for the installation of a single-stage sampler east of the existing firing pad below a culvert and rock check dam. A pin flag was placed at the selected location. Flow estimates from the drainage selected will be calculated either by using a GIS or by actual field measurements in conjunction with local meteorological rain data. The WQH-Operations Team will conduct a field assessment to determine the appropriate location for sampling storm water runoff from the site and whether or not single staged samplers are practicable.

TA-39-57 Firing Site

Proposal: Install a single-stage sampler within drainage that is "representative" of the discharges emitting from 39-57 firing point or construct an earthen berm that will stop any storm water runoff from leaving the site of the regulated activity. SWMU 39-004(d) is designated as the firing point.

Rationale: The existing gaging station (E274) is located approximately three miles downstream of site within North Ancho Canyon. Since other source terms are located both upstream and downstream within North Ancho Canyon the existing location for monitoring appears not to be representative.

Questions:

- Can an appropriate drainage be selected that will be representative of storm water discharges emitting from site?
- Can the geometry of the drainage selected be determined to satisfy the total flow estimated requirement?
- If it is determined that the use of single stage samplers is appropriate, then a description of how the single stage samples will be installed and sampled will be included in the approved storm water monitoring plan.
- Can a berm or retention area be installed to prevent storm water runoff from leaving site? If so, storm water monitoring may not be required.

Resolution:

A field trip was conducted at the site on May 24, 2002. The SWAT determined that an earthen berm to prevent releases was not a viable option. A site was selected for the installation of a single-stage sampler south southeast from the existing firing pad near the "Y" intersection. A pin flag was placed at the selected location. Flow estimates from the drainage selected will be calculated either by using a GIS or by actual field measurements in conjunction with local meteorological rain data. The WQH-Operations Team will conduct a field assessment to determine the appropriate location for sampling storm water runoff from the site and whether or not single staged samplers are practicable.

TA-39 - MDA Y

Proposal: Install a single-stage sampler within drainage that is "representative" of the discharges emitting from MDA Y or construct an earthen berm that will stop any storm water runoff from leaving the site of the regulated activity. SWMU 39-001(b) is designated as the MDA.

Rationale: The existing gaging station (E274) is located approximately two miles downstream of site within North Ancho Canyon. Since other source terms are located both upstream and downstream within North Ancho Canyon the existing location for monitoring appears not to be representative.

Questions:

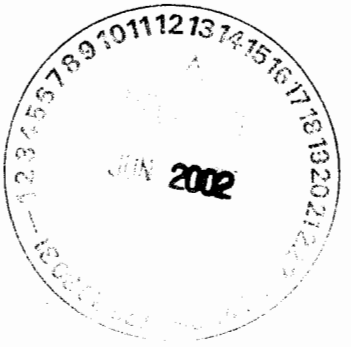
- Can an appropriate drainage be selected that will be representative of storm water discharges emitting from site?
- Can the geometry of the drainage selected be determined to satisfy the total flow estimated requirement?
- If it is determined that the use of single stage samplers is appropriate, then a description of how the single stage samples will be installed and sampled will be included in the approved storm water monitoring plan.
- Can a berm or retention area be installed to prevent storm water runoff from leaving site? If so, storm water monitoring may not be required.

Resolution:

A field trip was conducted at the site on May 24, 2002. The SWAT determined that an earthen berm to prevent releases is a viable option. A site was selected for the installation of a single-stage sampler south of the MDA within the canyon's main drainage. A pin flag was placed at the selected location. This site may not flow often and since the site selected was within the drainage, it may not be representative. The WQH-Operations Team will conduct a field assessment to determine the appropriate location for sampling storm water runoff from the site and whether or not single staged samplers are practicable.

Meeting Participants:
Barbara Hoditschek
Ralph Ford-Schmid
Steve Veenis

Field Visit Participants:
Barbara Hoditschek
Ralph Ford-Schmid
Ken Mullen
Bruce Gallaher
Harvey Decker



SV/tml

Cy: Ralph Ford-Schmid, DOE/OB, Santa Fe, NM,
Barbara Hoditschek, DOE/OB, Santa Fe, NM
Richard Powell, NMED/SWQB, Santa Fe, NM
Brett Lucas, NMED/SWQB, Santa Fe, NM
Jim Davis, NMED/SWQB, Santa Fe, NM
James Bearzi, NMED/HWB, Santa Fe, NM
John Young, NMED/HWB, Santa Fe, NM
Everett Spencer, EPA Region VI, Dallas, Texas
Gene Turner, DOE/OLASO, MS A316
Karen Agogino, DOE/ALBQ, MS J514
Doug Stavert, RRES/DO, MS J978
Dave McInroy, RRES/ER, MS M992
Tony Grieggs, RRES/SWRC, MS K490

Cy (continued):
Steve Rae, RRES/WQH, MS K497
Mike Alexander, RRES/WQH, MS K497
Mike Saladen, RRES/WQH, MS K497
Ken Mullen, RRES/WQH, MS K497
Harvey Decker, DX/DO, MS P915
Deb Woitte, LC, MS A187
Kelly Bitner, Neptune & Company, MS M969
RRES-WQH File, MS K497