TA 21

State of New Mexico
ENVIRONMENT DEPARTMENT
DOE OVERSIGHT BUREAU
134 State Road 4, Suite A
TA 00-1313
White Rock, New Mexico 87544
Telephone (505) 672-0443 Fax (505) 672-0466

BILL RICHARDSON
GOVERNOR

RON CURRY
SECRETARY

DERRITH WATCHMAN MOORE
DEPUTY SECRETARY

March 17, 2006

Mr. Gene Turner, DOE/AIP/POC
Department of Energy
Los Alamos Site Office, MS A316
Los Alamos, NM 87545

SUBJECT: Report Submittal: NMED-DOE-OB Site Evaluation For Storm Water And Erosion Controls At MDA-V (TA-21) Restoration Site At Los Alamos National Laboratory, March 15, 2006.

Mr. Gene Turner:

NMED DOE OB is submitting the referenced report documenting our participation in a site evaluation of MDA-V for storm water and erosion controls at TA-21 on March 15, 2006 that was pursuant to the NPDES General Permit for Large and Small Construction Activities (Clean Water Act, 33 U.S.C. §1251 et.seq.). MDA-V is the site of an environmental restoration project that is being cleaned up to RCRA residential clean-up levels. Target date for project completion is May 2006. Also as part of this effort, our staff reviewed the SWPPP that was located on-site. The SWPPP was certified, past inspection reports were included, and a copy of the Notice of Intent (NOI) required by the construction general permit, was present. The site diagram in the SWPPP was used during the site assessment.

Thank you for your continued support of our environmental monitoring and site evaluations at LANL. Please notify Barbara Hoditschek (672-3151, email- bhodits@lanl.gov) or Eric Galloway (428-2547, email- erik.galloway@state.nm.us) at your earliest convenience if you have any questions concerning this report.

Sincerely,

Steve Yanicak, Staff Manager

SY:sy

10906

cc w/enclosure: Dave McInroy, LANL, ENV-ERS MS M992
Michael Saladen, LANL, ENV-WQH MS K497
Becky Coel-Roback, LANL, ENV-ECR MS M992
Steve Veenis, LANL, ENV-WQH MS K497
Cathy Smith, LANL ENV-WQH MS K497
Robin Reynolds, LANL, ENV-WQH MS K497

wo/enclosure: John Volkerding, NMED, Bureau Chief, DOE OB

c:\...\TA21_MDAV_Erosion Eval submit_03_17_06.doc (ltr, 03-17-2006)

NMED-DOE-OB Site Evaluation Report For Storm Water And Erosion Controls At MDA-V (TA-21) Restoration Site At Los Alamos National Laboratory, March 15, 2006.

The site evaluation was made pursuant to the NPDES General Permit for Large and Small Construction Activities (Clean Water Act, 33 U.S.C. §1251 et.seq.).

Participants:

Jami Morgan
Rudy E. Vigil
Robin Reynolds
Jeff Waltersheid
Jake Meadows
Catherine Smith
Jennifer Foot
Erik Galloway (NMED-DOE-OB)
Pat Wolfe
Jared Pompeo
Barbara Hoditschek (NMED-DOE-OB)
Becky Coel-Roback

DOE-OB staff met LANL and their contractors at TA-21 at approximately 9:30 am. The day was clear and windy with no rain.

MDA-V is the site of an environmental restoration project that is being cleaned up to RCRA residential clean-up levels. Target date for project completion is May 2006.

On arrival, DOE-OB staff and other group members were escorted onsite to a construction trailer where everyone checked in and was given a safety briefing. Mr. Vigil conducted the construction site tailgate safety briefing.

Eye protection was suggested due to flying dust.. There were no construction activities at the site at the time of the site evaluation so other personal protection equipment was not required. Mr. Vigil identified the main safety concern as uneven ground. All excavation areas were clearly marked and had posted access restrictions.

Overall:

The site was well maintained and clear of debris. Machinery was idle and was located on the western end of the site. All machinery was well-maintained and showed no signs of leaks. The site was surrounded by fence and was locked to limit access. Excavation points were marked and access was limited.

During the site evaluation, DOE-OB staff noted that the site preparation for the much of the site involved leaving most of the native vegetation intact. This under utilized an often overlooked practice constitutes a BMP.

The use of native vegetation helps to reduce the site's soil erodibility and provides cover that will reduce rainfall impact on soils and slow down surface runoff velocities. This practice also enhances infiltration, helps trap sediment with vegetative roots, and promotes permanent vegetation establishment that also adds to overall stability at the site. It was noted that a second underutilized practice was also being used at the site. Vegetation that had to be removed was being used as cover by spreading it out over the site. This provides natural cover that further adds to the site's stability.

A dirt berm was in place around much of the area down gradient of the site and was very effective for containment of any sheet flow of storm water from the construction activities. This practice is a good use of the site's soil to help to prevent runoff from construction activities into the steeply sloped canyons.

SWPPP:

The SWPPP was located on-site in the construction trailer and was accessible to all parties involved. In addition, the SWPPP was certified, past inspection reports were included, and a copy of the Notice of Intent (NOI) required by the construction general permit, was present. The site diagram was found and used during the site assessment. The only deficiency noted was that the protocol for notification of potential spills was only referred to in the Spill Prevention Plan. This list of notification phone numbers and the referred to protocol was taped to the wall of the trailer and a suggestion was made to include it within the SWPPP. In addition, it was suggested that the SWPPP should be updated to reflect any additional BMPs placed onsite as a result of this on site evaluation. Final stabilization also needs to be addressed in the SWPPP.

Construction Entrance:

The construction entrance evaluated had angular rock placed upon a semi-permeable liner. Thickness was adequate and there was no sign of tracking on the adjacent road. DOE-OB staff was informed that the street was being swept by a street-sweeper bi-weekly. The NOI was posted in plain view at the entrance to the site.

Western side Straw Bails and Wattles:

These wattles were close to being breached. DOE-OB staff suggested that the facility add an additional layer of wattles in order to raise its height so that any further runoff would be mitigated.

Southwestern Slope:

The slope changes from a low gradient to a high gradient. The only BMPs in place at the time of the site evaluation were a series of "georidges" that were located in the transitional area above the steep slope at the toe of the more gentle slope. While these devices were designed to dissipate the concentrated flow from above, they were totally inadequate as a BMP unto themselves. In addition, they were installed well below where they would be able to provide any adequate velocity or sediment control. The DOE-OB staff suggested that LANL place a series of BMPs starting at the top of the more gentle slope to its toe in order to provide better flow dissipation and sediment control before any storm water flow off the site can acquire high velocity. In addition, it was suggested that the "georidges" be staggered in order to provide greater traveling time through the devices for better sediment deposition and that they to be extended further up the slopes in order to minimize any erosion from water finding a way around the structures. DOE-OB staff recommended these modifications be implemented as soon as possible in order to prevent any future erosion from the site.

Southern Steep Slope:

The Southern slope is very steep, highly erodible and lacked vegetation. This slope showed some signs of erosion including small rills. Parallel dirt berms were present on site and consisted of traversal swales with associated dirt and rubble berms. LANL staff noted that these berms worked well in slowing flows down the steep slope during 2004 rain events at other sites. A series of wattles and silt fences were present further toward the toe of the incline.

DOE-OB made several suggestions on how to provide greater stability to the slope. These suggestions included the placement of straw wattles of fiber rolls placed into troughs cut at an angle perpendicular to the slope and anchored in combination with some form of erosion control blanket in order to further "break-up" and reduce the slope length and provide soil stability and reduce erodibility. Reinforcement of the transversal swales and berms with some form of bonded fiber matrix would add additional stability to these swale/berm BMPs. Vegetation needs to be established for final stabilization on these slopes through seeding and possible vegetative plantings. The silt fence found at the toe of the slope needs to be maintained.

Erik

MDA-V Site Evaluation Report
3/17/2006

East Side:

BMPs in place are adequate but need to be closely monitored and maintained due the fact that the Eastern side of the site has a well-defined erosion channel. This channel runs through the area of the cleanup site that had the higher levels of potential contamination. In addition, DOE-OB staff noted that LANL FFCA storm water compliance monitoring sampling stations were located immediately below this area.

Additional Recommendations:

DOE-OB staff made these recommendations specifically to Robin Reynolds (MSGP Construction permitting), Becky Cole-Roback (ER PIC for remediation at MDA-V), and Cathy Smith (FFCA storm water monitoring program).

1. Coordination between the ER program site remediation PIC, the Construction Storm Water Permitting program representative and the FFCA storm water monitoring program representative regarding ER restoration activities that may impact FFCA storm water monitoring sites if/when releases/spill occur during the site remediation need to be established. This coordination effort may need to be established as a program policy at the upper levels of management. Coordination efforts could be as simple as an agreement by the ER program to have all restoration PIC's contact the FFCA storm water monitoring representative when restoration activity are being planned. The FFCA storm water monitoring representative can then determine if any FFCA related sampling sites may be impacted and inform the ER PIC and the MSGP Construction permitting representative to include appropriate language in the SWPP and/or permit.

DOE-OB staff also suggested that when a construction/remediation project(s) were being performed at or near FFCA monitored sites that BMPs used on the site be designed for full containment or "No Discharge" within the permit and/or SWPPP.

If there are any questions concerning these recommendations, please call either Erik Galloway at 428-2547 or Barbara Hoditschek at 672-3151. Mr. Galloway will notify appropriate LANL staff to schedule a follow-up site evaluation in 3 weeks.