[redacted] Permit

Los Alamos
NATIONAL LABORATORY

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Date: July 13, 2001
In Reply Refer To: ESH-18/WQ&H:01-220
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Mr. Richard Powell
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New Mexico Environmental Department
1190 St. Francis Drive
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JUL 16 2001
Laboratory Counsel
General Law

SUBJECT: RESPONSE TO NPDES STORM WATER INSPECTION REPORT, NPDES STORM WATER PERMIT NOS. NMR05A734 AND NMR0A735

Dear Mr. Powell:

Enclosed is Los Alamos National Laboratory's response to the Compliance Evaluation Inspection Report dated May 7, 2001, that was prepared by the Surface Water Quality Bureau of the New Mexico Environment Department (NMED). On April 26, 2001, NMED conducted an inspection of Solid Waste Management Unit (SWMU) No. 1-002, located on Los Alamos County property in Acid Canyon. This inspection was conducted under the NPDES Multi-Sector General Permit (MSGP) requirements. We have made several improvements to the Laboratory's umbrella Storm Water Pollution Prevention Plan (SWPP Plan) covering this SWMU as a result of the report findings. However, the Laboratory disagrees with many of the specific findings of this report as summarized in the enclosed response.

The Laboratory's Storm Water Permit Program includes 18 SWPP Plans covering its industrial operating sites and one umbrella SWPP Plan covering the approximate 1,000 SWMUs identified under the Laboratory's Resource, Conservation and Recovery Act (RCRA) Permit. Approximately 200 SWMUs under the Laboratory's RCRA Permit have been identified as possibly impacted by storm water runoff by the Storm Water Assessment Team, which is composed of Laboratory and NMED personnel. These SWMUs have best management practices (silt fences, jute mats, re-seeding, etc.) installed, as appropriate, at each site to control erosion. The NMED's conclusion that the inspection of the Acid Canyon SWMU demonstrates non-compliance of the Laboratory's entire Storm Water Program is inconsistent with previous inspections conducted by NMED and the U.S. Environmental Protection Agency (EPA). On a number of occasions, the Laboratory has presented information to the NMED and EPA, and the Laboratory has been encouraged to continue it's compliance approach. In fact, the Surface Water Quality Bureau of NMED considered the Laboratory's process to evaluate SWMUs for possible surface water impacts as a model for other storm water permitted facilities in New Mexico.

15938

The Acid Canyon SWMU is atypical and unique for several reasons. The site, located on Los Alamos County property, was originally contaminated from wastewater effluent discharges during the 1950's and early 1960's. The Laboratory removed the discharge line during the mid-1960's and conducted clean-up activities at the site in 1966 and again in 1976 to 1977. Los Alamos County owns and controls two current discharges of storm water and one NPDES permitted discharge of non-storm water from a municipal swimming pool into Acid Canyon. These discharges flow through the natural drainage channel that runs through the site. The major contaminants of concern identified in the SWPP Plan for this site are radioactive materials regulated under the Atomic Energy Act (plutonium, strontium and cesium). Since the Acid Canyon SWMU is atypical and is only one site out of hundreds covered by the Laboratory's SWPP Plans, it is not appropriate to apply comments regarding this site to characterize the Laboratory's entire Storm Water Permit Program as non-compliant.

The Laboratory plans to conduct additional cleanup activities in Acid Canyon on Los Alamos County property to remove recently discovered sediments contaminated with radioactive materials in the fall of 2001. This proposal for "hotspot" removal as a best management practice has been incorporated into the SWPP Plan for the Acid Canyon SWMU. Since the sediment removal was delayed, the Laboratory in consultation with NMED on April 17, 2001, recommended the installation of jute matting to stabilize the contaminated sediments. The NMED inspection occurred seven working days later on April 26th and the jute matting was installed on May 8th.

I am hopeful that after reviewing the enclosed information that the NMED will agree with our response and revise the Compliance Evaluation Inspection Report in order to accurately reflect the Laboratory's compliance status with the NPDES Multi-Sector Storm Water Permit. Please contact Michael Saladen at (505) 665-6085 or Steve Veenis at (505) 667-6919 of the Laboratory's Water Quality and Hydrology Group, if you have any questions about this response or the Laboratory's Storm Water Permit Program.

Sincerely,

Steven Rae
Water Quality and Hydrology Group

SR:SV/tml

Attachments: a/s

Cy: Everett Spencer, EPA, Region IV, Dallas, Texas, w/att.
Diana McDonald, EPA, Region IV, Dallas, Texas, w/att.
Greg Lewis, NMED, Santa Fe, New Mexico, w/o att.

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RESPONSE TO NPDES COMPLIANCE INSPECTION REPORT
NMED Inspection of April 26, 2001

Los Alamos National Laboratory
NPDES Storm Water Permit No. NMR05A734 and NMR05A735

I. Compliance Inspection Report Form 3560-3[1]

(1) Section A: National Data System Coding, Column 70, Facility Evaluation Rating. Instructions for EPA Form 3560-3, Column 70 state, "Use information gathered during the inspection (regardless of inspection type) to evaluate the quality of the facility self-monitoring program. Grade the program using a scale of 1 to 5 with a score of 5 being used for very reliable self-monitoring programs, 3 being satisfactory, and 1 being used for very unreliable programs."

The inspection report rates the overall facility self-monitoring program as "2." Los Alamos National Laboratory (the Laboratory) respectfully disagrees with this assessment for the following reasons.[1] First, the NPDES Storm Water Inspection was conducted at *one* Solid Waste Management Unit (SWMU) that is located off Laboratory property (SWMU 01-002). This represents < .1% of the Laboratory's entire storm water program. An inspection this limited cannot accurately reflect the overall Storm Water Program that has been developed at the Laboratory since 1993, and therefore, a Facility Evaluation Rating of "2" is not justified.

Summary of Storm Water Program. The following brief description of the Laboratory's Storm Water Program is provided to substantiate this point. The Laboratory has had a comprehensive storm water program for its industrial activities since 1993, first operating under the NPDES Baseline General Permit and then under the NPDES 1995 Multi-Sector General Permit. On December 23, 2000, the Laboratory received NPDES coverage for its industrial activities under the 2000 Multi-Sector General Permit (MSGP), Permit numbers NMR05A734 and NMR05A735.

The MSGP requires the identification of potential pollutant sources and the implementation of pollution prevention practices to control the migration of pollutants due to storm water runoff. This information is included in Storm Water Pollution Prevention Plans (SWPP Plans) specific to each industrial activity. The Laboratory has identified the following types of operations at the

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[1] It should be noted that the categories in the Compliance Inspection Report Form 3560-3 used to document the inspection performed on April 26, 2001 (Inspection Form) are difficult to follow because they are inconsistent with the checklist attached to the Inspection Form. Also the Inspection Form and the checklist do not appear to follow the requirements of the 2000 Multi-Sector General Permit, which is applicable to the Laboratory. The Inspection Form could not be found in EPA Guidance Documents or on the EPA Website. The Form appears to match the requirements of the 1992 "EPA Industrial General Permit for Storm Water Discharges Associated With Industrial Activity" for use with the 1992 Baseline Industrial Permit.

Laboratory that are classified as "industrial activity" under the permit and are therefore covered by SWPP Plans:

1. Steam electric power generating facilities (Sector O).
2. Asphalt batch plants as described in the Asphalt Paving Mixtures category (Sector D).
3. Fabricated Metal Products (Sector AA).
4. Hazardous waste treatment, storage, or disposal (TSD) facilities, including those that are operating under interim status or a permit under Subtitle C of RCRA (Sector K).
5. Landfills including those that are subject to regulation under Subtitle D of RCRA (Sector L).
6. Chemical and Allied Products (Sector C)
7. Primary Metals (Sector F)
8. Land Transportation and Warehousing (Sector P)

Because of the Laboratory's diverse and complex operations over 43 square miles, nineteen (19) site-specific SWPP Plans were prepared to cover our operational industrial activities and one SWPP Plan to cover SWMUs under the TSD category. EPA has stated that many RCRA Subtitle C facilities, such as the Laboratory, have "inactive Solid Waste Management Units (SWMUs) on facility property" and that "[u]ntil corrective action has been completed . . ., SWMUs are a potential source of storm water contamination that should be addressed under the NPDES program." *See*, 55 FR at 48012, 47996 (Nov. 16, 1990).

SWMU/SWPP Plan. Because of the large number of inactive SWMUs located on Laboratory property, Standard Operating Procedure (SOP) 2.01 was developed to provide a systematic approach to identifying those SWMUs that have the potential to adversely impact surface water quality and therefore need to be covered by a SWPP Plan (see Enclosure 1). Pursuant to SOP 2.01, field evaluations were conducted and SWMUs were prioritized based on their erosion potential. A Surface Water Assessment Team (SWAT) consisting of Laboratory, Department of Energy (DOE) and New Mexico Environment Department (NMED) representatives then recommended the installation of Best Management Practices (BMPs) at those SWMUs with high erosion potential in order to control or prevent the migration of contaminants in storm water discharges.[2] Based on SWAT recommendations, BMPs have been installed at over 200 SWMUs at a cost of over $500,000.

Approximately 40 SWMUs are covered by the (18) operational SWPP Plans. To fulfill the MSGP requirements for the remaining SWMUs, an "umbrella" SWMU/SWPP Plan was developed that includes a description of the SOP 2.01 process. To supplement the umbrella plan, a Site-Specific SWPP Plan Form was developed for the approximately 165 SWMUs covered. The site-specific forms describe the potential pollutants and the controls implemented at each site. For example, at SWMU 4-001 (a former

[2] NMED/SWQB considered the development and implementation of SOP 2.01 process as a model for other storm water permitted facilities. In fact, the SWQB requested that Laboratory personnel provide training on SOP 2.01 to other statewide institutions. In 1998, a training seminar was provided at Kirtland Air Force Base to describe and demonstrate SOP 2.01 to attendees, including Sandia National Laboratory, Kirtland Air Force Base, Holloman Air Force Base, White Sands Missile Range and the Waste Isolation Pilot Project. This procedure has since been implemented at these facilities.

firing site), the potential pollutants include americium and uranium. The controls implemented include straw wattles, reseeding of native grasses and straw mulch. The forms will be maintained separately as active files to this plan until the SWMU is either remediated or removed from the RCRA Operating Permit.

The SWMU/SWPP Plan is periodically reviewed and modified. The SWMU/SWPP Plan was last modified in October 2000 to reflect the impact of the Cerro Grande Fire. In addition, the Laboratory implemented a BMP Installation, Inspection and Maintenance Program to comply with Section 4.2.7.2.1.5 "Routine Facility Inspections" of the MSGP. Pursuant to that program, all BMPs at SWMUs covered by SWPP Plan are inspected at a minimum frequency of quarterly and/or after 0.5" rain events. Contractor support has been provided to ensure that BMPs are inspected and maintained as required by the MSGP. In 1998, the Laboratory developed a guidance document on the selection, installation, inspection and maintenance of BMPs designed to control the migration of potential pollutants to surface waters. Its intent is to provide a consistent approach in the selection and use of BMPs at the Laboratory. (see Enclosure 2, "Storm Water/Surface Water Pollution Prevention Best Management Practices Guidance Document")

Secondly, the SWMU inspected is unique because it is not located on Laboratory property. Since 1967, it has been on property owned by Los Alamos County property. There are several point source discharges into a drainage channel that traverses the site; all of these are controlled by the County, not by the Laboratory. These include storm water discharges from streets and a paved skateboard park, and an NPDES permitted non-storm water discharge from the County's nearby aquatic center. The site has been the subject of cleanup actions in 1966, 1976-77, and is projected for another cleanup action in the fall of 2001. The most important contaminants of concern are radioactive materials regulated under the Atomic Energy Act, and excluded from regulation under the Clean Water Act (see 40 CFR 122.2, definition of "pollutant"). Comments about one SWMU as unique and atypical as the site inspected are not applicable to the Laboratory's overall Storm Water Permit Program covering 43 square miles.

In summary, the inspection report does not represent a comprehensive evaluation of this large and complex program, and the inspection of only one unique SWMU should not be a basis for an evaluation of the entire program.

(2) Section C: Areas Evaluated During Inspection - Records/Reports, Facility Site Review, Effluent/Receiving Waters, Self-Monitoring Program, Storm Water and Pollution Prevention. Overall Rating of "*Unsatisfactory*"

The inspection form rated the following six subcategories of Section C as "unsatisfactory": records/reports, facility site review, effluent/receiving waters, self-monitoring program, storm water and pollution prevention. The Laboratory disagrees with the inspection report findings in all six categories. Significantly, no support was provided either during the inspection or in the inspection report for a facility-wide rating of "unsatisfactory" in these categories. The following paragraphs briefly provide the Laboratory's responses:

(a) *Records/Reports.* All records requested during the inspection were provided to the inspector including: a SWPP Plan site-specific form for the inspected SWMU (#1-002), a SWPP Plan

signatory sheet and a current Site Compliance Evaluation Report. Additional information is available upon request.

(b) *Facility Site Review.* As described in (1) above, the Laboratory has a comprehensive Storm Water Permit Program. A compliance inspection performed at only one SWMU and at no other industrial activities within the Laboratory does not justify the unsatisfactory evaluation.

(c) *Effluent/Receiving Waters.* The Laboratory's SWMU/SWPP Plan for the one SWMU inspected met all conditions of MSGP Section 4.2.3 regarding receiving waters. The name of the receiving waters (Acid Canyon) is labeled on the SWPP Plan site map for the SWMU inspected. The location inspected is an ephemeral drainage and no surface water was evident during the evaluation.

(d) *Self-Monitoring Program.* As discussed in Part III (7), below, the Laboratory has a comprehensive surface water-monitoring program to support its MSGP requirements. The MSGP requires monitoring of the storm water discharges from all identified industrial activities. To meet monitoring requirements, the Laboratory is operating storm water monitoring stations at its operational sites and in the canyons entering and leaving the Laboratory. Specifically, an automated telemetry based monitoring system has been installed to collect surface water samples at 69 monitoring stations located throughout the Laboratory.

The Laboratory has collected storm water samples from regulated discharges since 1993 and has submitted timely Discharge Monitoring Reports (DMRs) since that time. The Laboratory collected approximately 96 samples for the three monitoring quarters during 2000 and has submitted DMRs to EPA (see Enclosure 3). Included in this submittal is the most recent data from Pueblo Canyon monitoring station E060 that is located downstream from the inspection site. The increase in the number of samples submitted was largely due to the Laboratory's efforts to sample and characterize storm water runoff from Laboratory property impacted during the Cerro Grande Fire. Since numerous parameters were analyzed from each sampling event, this resulted in +/- 42,000 data points. All information is available on the ESH-18 website at http://drambuie.lanl.gov/~esh18/index.html. The flow information for 2000 is also reported in "Surface Water Data at Los Alamos National Laboratory: 2000 Water Year" (Shaull et al., 2001)(see Enclosure 4).

In addition, an automated monitoring station for Acid Canyon is scheduled for construction and will be operational by the end of July 2001. It will be located less than one-quarter mile upstream from the confluence of Acid and Pueblo Canyons. A second station is planned for Pueblo Canyon, again less than one-quarter mile upstream from this confluence. As discussed in Part III (7), the Laboratory has conducted several briefings with EPA regarding its storm water monitoring system, and the EPA representatives concurred with this approach.

(e) *Storm Water.* We are uncertain what this subcategory means and no explanation or reference to a MSGP requirement is provided in the inspection report. As noted in paragraph (c) above, there is a requirement regarding receiving waters in Section 4.2.3 of the MSGP, and the Laboratory has met the conditions of this section. In addition, the location inspected is an ephemeral drainage and no surface water was evident during the inspection.

(f) *Pollution Prevention.* Pollution prevention is addressed through the SWPP Plans, SOP 2.01, the Surface Water Assessment Team and BMP Installation Team. A comprehensive BMP Installation, Inspection and Maintenance Program has been implemented at the Laboratory to support the SWMU/SWPP Plan. Section 4.2.7.2.1.5 of the MSGP (Routine Facility Inspections), requires that periodic inspections be conducted and that tracking and follow-up procedures be used to ensure that appropriate actions are taken in response to the inspections. Contractor support has been provided to assure that BMPs are inspected and maintained as required by the MSGP. BMPs in the SWMU/SWPP Plan are inspected at a minimum frequency of quarterly and/or after 0.5" rain events.

II. Storm Water Industrial General Permit, Pollution Prevention Plan – CHECKLIST

(1) Description of Potential Pollutant Sources – Overall Rating "Marginal"

The Laboratory disagrees with this rating. This section of the inspection checklist appears to cover MSGP Storm Water Pollution Prevention Plan requirements regarding a site map (4.2.2), the name of the nearest receiving water (4.2.3) and a summary of potential pollutant sources (4.2.4).

Summary of Potential Pollutant Sources. Section 4.1.1 states the SWPP Plan must *"Identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges from your facility."* Section 4.2.4 states *"...identify each separate area at your facility where industrial materials or activities are exposed to storm water. . . . For each, separate area identified, the description must include: 4.2.4.1 Activities in Area. A list of activities (e.g., material storage, equipment fueling and cutting steel beams); and 4.2.4.2 Pollutants. A list of the associated pollutant(s) or pollutant parameter(s) for each activity"* that includes *"significant materials that have been handled, treated, stored or disposed in a manner to allow exposure to storm water between the time of three (3) years before being covered under this permit and the present."*

SWMU 1-002 is identified in the SWMU/SWPP Plan as a potential source of pollution that may reasonably be expected to affect storm water quality. The site-specific form for this SWMU identified Pu-238 and Pu-239 as the contaminants of potential concern (COPCs) and additional potential pollutants were identified in the narrative of the section 3.2 of the site-specific form. No significant materials have been handled at this SWMU for over 30 years when the treatment plant disposal line was removed in the mid-1960s. No activities have taken place since cleanup activities were undertaken in 1966 and again in 1976-77. Accordingly, SWMU 1-002 is currently inactive. The approximate SWMU boundary is shown on the site map.

In general, the potential pollutants or COPCs for SWMUs in the SWMU/SWPP Plan were identified using two sources: (1) the 1997 Site-Wide Environmental Impact Study data tables provided by ESH-20, and (2) site-specific sample data obtained from the Environmental Restoration Project when available. The data tables were then compared to background data concentrations and those contaminants with a value >10X background are listed in Section 3.2 of the site-specific plan for each SWMU. The values were identified as potential sources of pollution that may reasonably be expected to affect the quality of storm water discharges.

Site Map/Receiving Water. It is the Laboratory's opinion that the Site Map included in the SWPP Plan meets the permit requirements of Section 4.2.2. The site map provided in the SWPP Plan for SWMU 1-002 shows: 1) 10-ft. contour intervals using the 1983 North American Datum Projection and Grid Ticks; New Mexico State Plane Coordinate System; Central Time Zone (Transverse Mercator); flow direction and the outline of an approximate drainage area can be easily determined using the rule of V's for contour maps; 2) Acid Canyon as the receiving surface water body; and 3) the location of potential pollutant sources are shown by the SWMU boundary denoted in red. Since BMPs had not been installed by the time of the inspection, they were not depicted on the map. The map also did not depict the location of municipal storm water outfalls (*i.e.*, culvert and drainage swale owned by Los Alamos County) or a County permitted non-storm water discharge.

The following improvements, however, have been made to the site map, as a result of the inspection: 1) arrows have been plotted depicting the direction of storm water flow (down hill); 2) all drainages in the area have been labeled including South Fork Acid Canyon, Acid Canyon and Pueblo Canyon; 3) recently installed BMPs have been plotted on the site map; and 4) the location of the County storm water culvert, drainage swale and the County NPDES permitted outfall from the Aquatic Center are plotted. These improvements can be reviewed on the modified Site-Specific Form for SWMU 01-002 (see Enclosure 5).

(2) Description of Appropriate Measures and Controls: Overall Rating of "*Unsatisfactory*".

The Laboratory disagrees with this rating. This section of the permit checklist appears to cover the SWPP Plan requirements for describing structural and non-structural Storm Water Controls (Section 4.2.7), Maintenance (4.3) and Non-Storm Water Discharges (4.4).

Structural BMPs (4.2.7.2.2). As previously described, the Laboratory implemented a systematic approach, Standard 0perating Procedure (SOP) 2.01, to evaluate and identify SWMUs that have the potential to affect storm water quality and to implement control measures, as appropriate. Specifically, field teams from the Water Quality and Hydrology Group (ESH-18) or the Environmental Restoration Project (ER) evaluated the field conditions to determine the potential for erosion or sediment migration. Photographs were taken to help document the field characteristics at the sites. Field information collected from each site included a description of the physical site setting (*e.g.*, mesa top, bench setting, floodplain or canyon drainages); the canopy and ground cover; the steepness of a slope; the runoff factors and run-on concerns; and the effectiveness of any existing BMPs. This information was used to determine the erosion potential for each SWMU, which was then utilized by the SWAT to recommend implementation of surface water corrective actions (*e.g.*, BMPs).

Although SWMU 01-002 had a high erosion potential due to its site setting, steepness, runoff termination point and run-on concerns, the SOP 2.01 assessment observed no erosion since the drainage was flowing mostly over local "bedrock." A review of the status for corrective action at SWMU 01-002 revealed an ER proposal of "No Further Action" (NFA) on 4/12/1996 based on (*NFA Criteria 5*) - "*The site has been characterized or remediated in accordance with current applicable state and/or federal regulations, and the available data indicate that contaminant pose an acceptable level of risk, assuming current or projected land use.*" A follow-up site visit determined that sediment packages within the drainage appeared stable.

NMED, however, did not take action on the proposed NFA, and in early 2000, NMED and the ER Project conducted additional sampling within the South Fork Acid Canyon drainage. As a result of this additional sampling, higher levels of plutonium were found in certain areas ("hotspots") than were originally reported. As a result of the ER proposal for NFA and the SWAT evaluation, the SWPP Plan for SWMU 01-002 did not mention or propose BMPs and instead incorporated the proposed ER "hotspot" removal. ER is currently scheduled to clean up hotspots in the fall of 2001 to DOE ALARA (as low as reasonable achievable) levels, at a cost of approximately $1.0 million.

To address recent NMED and public concerns until hotspot removal is completed, the SWAT met on April 17, 2001, and recommended the implementation of BMPs (jute matting) for the sediment packages within the drainage with the highest levels of plutonium. The NMED inspection occurred on April 26, 2001, and the jute matting was installed on the site on May 8, 2001. Approximately 150 linear feet of channel bank sediments were covered. Richard Powell of the NMED/SWQB was notified of the installation on May 15, 2001(see Enclosure 6).

Maintenance (4.3). Section 4.3 of the MSGP requires that all BMPs identified in the SWPP Plan "be maintained" in effective operating condition." As described above, BMPs were recently installed at SWMU 01-002 because hotspot removal had taken longer than expected. As previously described, the Laboratory has a comprehensive BMP maintenance program, including the BMP Installation, Inspection and Maintenance Program, requiring inspections at least quarterly and after 0.5 inch rain events. In addition, the Laboratory has developed a BMP guidance document to cover, *inter alia*, maintenance of BMPs. This SWMU will be inspected and maintained in accordance with permit requirements and Laboratory guidelines until the site has been remediated and stabilized.

Non-Structural BMPs (4.2.7.2.1). The Laboratory believes that certain non-structural BMPs are not applicable to inactive SWMUs, where no activity is occurring (*e.g.*, no possibility of spills or other activity such as storage, loading, unloading or transportation of materials, or equipment maintenance, as described in the MSGP). To the extent applicable, non-structural BMPs are addressed in Section 3.5 (Baseline BMPs) of the SWMU/SWPPP, which includes Good Housekeeping, Preventive Maintenance, Inspections, Spill Prevention and Response and Employee Training. When facility or ER personnel are actively characterizing, remediating or otherwise disturbing a SWMU, these Baseline BMPs are activated. The ESH-ID Process (a Laboratory requirement) is a computer-based method for notifying subject matter experts of proposed activities. Once a proposed activity at a SWMU completes the ESH-ID Process, Baseline BMPs are activated.

Non-Storm Water Discharges (4.4). We believe that this requirement requires the Laboratory to evaluate all of the storm water discharges from Laboratory outfalls for the presence of non-storm water, which the Laboratory has done. The particular SWMU inspected, however, is located off Laboratory property and on County property. The drainage area does have a non-storm water discharge from the County that impacts the SWMU. The County Aquatic Center has a NPDES permitted discharge of swimming pool water that is periodically released into the storm water drainage that bisects the SWMU. Although this is not a Laboratory outfall, the County discharge has been noted in the SWPP Plan and the discharge pipe has been added to the site drainage map.

From 1992-1995, the Laboratory conducted the "Waste Stream Characterization Project" at all Laboratory operations to verify pipe connections and to identify any non-storm water discharges that mingle with storm water. For storm water outfalls located on Laboratory property, the Laboratory has conducted the required non-storm water discharge evaluations and prepared the required certifications appropriate for the eighteen site-specific SWPP Plans. For the SWMU/SWPP Plan, Section 3.7 of the Plan describes the process for identifying non-storm water discharges at SWMUs and the information is recorded on each site-specific form.

The Laboratory has a well defined, working procedure to describe, recommend and implement appropriate measures and controls at its industrial sites. An overall rating of "Unsatisfactory" for the Laboratory's procedure for describing appropriate measures and controls is not warranted for the entire SWMU/SWPP Plan.

(3) Annual Site Compliance Evaluation Report: Overall Rating of "*Unsatisfactory*".

The Laboratory disagrees with this rating. The SWPPP requirements regarding Comprehensive Site Compliance Evaluations are covered under Section 4.9. of the MSGP. No support was provided for an "Unsatisfactory" evaluation for this requirement. The Laboratory is meeting the conditions of Section 4.9. Specifically, qualified personnel at the Laboratory have conducted comprehensive yearly inspections at "all areas where industrial materials or activities are exposed to storm water," including SWMUs, as provided in section 4.9.2. This also includes inspecting BMPs to ensure that they are operating correctly and are effective in preventing impacts to receiving waters. Section 4 of the SWMU/SWPP Plan (Site Compliance Evaluation) outlines a procedure for completing the annual inspection. Last year the annual compliance evaluation was completed on September 28, 2000, and included SWMU 1-002 (see Enclosure 7). The SWMU/SWPPP was modified in October 2000 to reflect the findings of the Compliance Evaluation and the impacts of the Cerro Grande Fire as required by Section 4.9.3 and 4.10 of the MSGP. All other follow-up actions related to BMPs have been completed and other report recommendations are currently being implemented.

Due to the development of an enhanced BMP Operation and Maintenance Program during the past year, the Laboratory anticipates the completion of more detailed Compliance Evaluation Reports for the SWMU/SWPP Plan in the future.

III. Further Explanations

(1) Introduction, Page 1, 2nd paragraph, states in part: "*the inspection involved a review of only one SWMU (although the findings likely apply to other similar areas)*" and "*The land upon which this SWMU is located has been deeded to Los Alamos County.*"

Although the Laboratory disputes the findings at the one SWMU inspected, we strongly disagree that the findings apply to the Laboratory's entire Storm Water Permit Program for its industrial activities. As previously discussed in Part I (1), the Laboratory has a comprehensive storm water program, with SWPP Plans for all its industrial activities. Furthermore, SWMU 1-002 is unique in that it is located off Laboratory property and has been remediated on several separate occasions.

(2) Introduction, Page 1, 4th paragraph, states in part: *"...SWMU 1-002 could, and perhaps should, be addressed as a land application area or open dump under Sector L since the discharges which created this SWMU appear to be the result of "industrial activity".*

The Laboratory has correctly identified all of its industrial activities, including SWMUs. While we agree that the discharges that created SWMU 1-002 "appear to be the result of industrial activity," we disagree that SWMU 1-002 is a "land application area or open dump under Sector L." Since this SWMU has been listed in the RCRA/HSWA Permit as having the potential to release *hazardous* constituents, it has been appropriately listed under the "industrial category" of "hazardous waste treatment, storage or disposal facilities" operating under the RCRA Permit. Sector K applies to hazardous waste TSD facilities. *See* 40 CFR 122.26(b)(14)(iv) and MSGP. Sector L applies to storm water discharges associated with industrial activities from landfills, land application sites, and open dumps. Land application areas and open dumps are defined in 40 CFR Parts 257 and 258. This SWMU meets the RCRA definition of a "SWMU" and does not meet the definition of a land application area or open dump.

(3) Storm Water Pollution Prevention Plan (SWPPP), Page 2, states in part: *". . . the site map does not include . . ."*

The Laboratory disagrees that the site map does not meet the requirements of the MSGP. As described above in Part II (1), the MSGP requirements regarding the site map have been met.

(4)* Storm Water Pollution Prevention Plan (SWPPP), Page 2, states in part: *"Although the SWPPP indicates that this site is inactive, it is an active SWMU which is not isolated or revegetated."

The Laboratory disagrees that this SWMU is active. No significant materials have been handled at this SWMU for over 30 years when the treatment plant disposal line was removed in the mid-1960s. No activities have taken place since cleanup activities were undertaken in 1966 and again 1976-77. None of the activities described in the MSGP requirement of identifying pollutant sources currently occur at this SWMU, such as the storage, loading, unloading or transportation of materials, or equipment maintenance (Section 4.2.4.2). Furthermore, EPA recognized that SWMUs may be inactive until the completion of corrective action measures. *See* 55 FR at 48012 (Nov. 16, 1990).

No additional activities will occur at this SWMU until the fall of 2001 when ER will conduct hotspot soil removal. At that time, ER will develop a site-specific SWPP Plan developed for the proposed activity that will ensure that appropriate measures and controls are in place. Although there is no requirement in the MSGP for the site to be "isolated" or "revegetated," once the site is remediated, the Laboratory will stabilize the site, as appropriate.

(5) **Storm Water Pollution Prevention Plan (SWPPP) – Part 4.1.1 - Description of Potential Pollutant Sources; Page 2, states in part:** ***"... the SWPPP does not appear to identify all pollutants or pollutant parameters (i.e., total suspended solids . . . ."***

See response in Part II (1). The Laboratory has identified the pollutants of concern that may reasonably be expected to affect storm water. Furthermore, the Laboratory conducts benchmark sampling at its monitoring stations for the associated benchmark parameters for the appropriate downstream Sectors.

(6) **Storm Water Pollution Prevention Plan (SWPPP) – Part 4.1.1 - Description of Potential Pollutant Sources: Page 2, states in part:** ***"...LANL did not obtain MSGP coverage until the 2nd quarter of the 4th year of the permit, the permittee should have conducted, or attempted to conduct, required 'Analytical Monitoring' during the 3rd & 4th quarters of the 4th year of the permit and reported the results of these analyses" on DMRs.***

The Laboratory has had appropriate permit coverage for its industrial storm water discharges since 1993. The Laboratory originally received coverage under the Baseline General Permit to discharge storm water associated with Industrial Activity in August of 1993 (NMR00A384). In 1995, the EPA proposed to cover all industrial storm water discharges under a Multi-Sector General Permit. The EPA gave permittees the option of either continuing coverage under the Baseline Permit or transferring coverage to the Multi-Sector General Permit. The Laboratory opted to continue coverage under the baseline general permit, which was administratively extended in 1997, and continued until December 1998. The Laboratory obtained coverage under the 1995 Multi-Sector General Permit in December 1998 (NMR05A509 and NMR05A532). The Laboratory received coverage under the reissued Multi-Sector Permit on December 23, 2000 (#NMR05A734 and #NMR05A735). Accordingly, the Laboratory has always had the appropriate permit coverage for its industrial discharges.

Since the time of the station instrumentation in lower Pueblo Canyon (E060), the Laboratory was not able to collect a sample until a storm event in October 2000 produced adequate runoff. A DMR was submitted last year on March 28th to document the status of station E060 discharges. A DMR for the October 2000 flow event is attached for your review (see Enclosure 8).

(7) **Storm Water Pollution Prevention Plan (SWPPP) – Part 4.1.1 - Description of Potential Pollutant Sources: Pages 2-3. The narrative provided specific comments regarding analytical monitoring, Discharge Monitoring Reports (DMRs) and representative outfalls.**

The Laboratory disagrees with these comments. The monitoring requirements applicable to the Laboratory are in MSGP Section 5 ("Monitoring Requirements and Numeric Limitations") and Section 6 sector-specific requirements. To meet the monitoring requirements, the Laboratory is operating storm water monitoring stations at its operational sites and in the canyons entering and leaving the Laboratory. Specifically, an automated telemetry based monitoring system has been installed to collect surface water samples at 69 monitoring stations located throughout and off Laboratory property. The Laboratory has collected storm water samples from regulated discharges since 1993, including approximately 96 samples for the three monitoring quarters during 2000, and has submitted timely Discharge Monitoring Reports (DMRs) on March 28, 2001.

Monitoring for Inactive SWMUs. Most of the SWMUs in the SWMU/SWPPP are located in remote, inactive areas that are unstaffed. That is, approximately 165 SWMUs (with potential to adversely impact surface water quality) are in remote locations across 43 square miles of Laboratory property, where it would be virtually impossible and extremely resource intensive to meet the sampling or visual requirements at each SWMU.

The MSGP, however, allows a waiver of the visual monitoring and benchmark monitoring requirements where the monitoring at inactive and unstaffed sites is not feasible, as long as the "facility" remains inactive and unstaffed. "Facility" is defined as "any NPDES point source or any other facility or activity" subject to NPDES regulation, which includes a SWMU. The waiver is intended to apply where the lack of personnel and locational impediments hinder the ability to conduct the sampling or visual examination, such as the ability to meet the time and representative rainfall sampling specifications. MSGP Sections 5.1.1.4 and 5.1.2.3.

The Laboratory believes that the waiver applies to these inactive SWMUs, but also wants to conduct storm water monitoring so that it has information to determine the effectiveness of BMPs in controlling contaminants. As set out the SWMU/SWPP Plan, therefore, the Laboratory monitors storm water discharges utilizing its automated monitoring stations. For inactive SWMUs, the gauging stations are installed at drainage confluences within the Laboratory's major canyon systems to monitor storm water runoff from SWMUs. This approach provides monitoring support on a sub-watershed or aggregate scale to provide information required by the Storm Water Permit. For its active industrial sites, the stations are located closer to the regulated activity.

The analytical suites for the monitoring include all Benchmark Parameters required by the MSGP for each Sector. Analytical monitoring results obtained from storm event samples are submitted on Discharge Monitoring Reports as required by Section 7- Reporting of the MSGP. The Laboratory's Environmental Surveillance Program may also collect samples at these locations to assess the impact of other analytical parameters, as required by DOE Order 5400.1

EPA Briefings. The Laboratory first presented this watershed monitoring approach for its inactive SWMUs to EPA Region VI in July 1999. The EPA representatives at the meeting fully supported this approach. In addition, after the Cerro Grande Fire, EPA requested that the Laboratory provide information regarding modifications made to SWPP Plans covering areas impacted by the fire. The Laboratory therefore met with EPA in November 2000 and provided the requested information, including the modified SWPP Plan for SWMUs (see Enclosure 9). On April 12-13, 2001, EPA representatives Everett Spencer and Diana McDonald visited the Laboratory to evaluate actions taken in response to the Cerro Grande Fire in order to assure compliance the Laboratory's NPDES Storm Water Permit. It was determined that the Laboratory is currently meeting the requirements indicated in EPA's letter of June 14, 2000 (see Enclosure 10).

(8) Storm Water Pollution Prevention Plan (SWPPP), Part 4.1.1 – Description of Potential Pollutant Sources: Page 3, states in part: *"The permittee has not conducted any of the required quarterly visual examinations..."*

As set out in (7), the Laboratory believes that the waiver provisions for visual monitoring also apply at its inactive SWMUs because it would be virtually impossible and extremely resource intensive to attempt visual monitoring at 160 SWMUs over 43 square miles – whenever there is a storm event. However, the Laboratory believes it is important to collect information in order to determine the effectiveness of controls in preventing potential contaminants from migrating off Laboratory property. Accordingly, the field personnel will conduct visual monitoring of storm water collected

at the 69 gauging stations located throughout the Laboratory. The Laboratory has added a section to the "Surface Water Sampling Field Sheet" for field personnel to complete when collecting sample bottles at gauging stations after storm events (see Enclosure 11). Information recorded will document all observations that are required under Section 5.1.1.2 of the MSGP. The completed field sheets will then be maintained onsite with SWPP Plans as required.

(9) Storm Water Pollution Prevention Plan (SWPPP), -Part 4.2.7 - Description of Appropriate Measures and Controls, Page 4, Narrative paragraph 3 states in part, *"there has been no implementation/installation of structural or non-structural BMPs .... "*

See response in Part II (2) and Part I (1).

(10)* Storm Water Pollution Prevention Plan (SWPPP), -Part 4.2.7 - Description of Appropriate Measures and Controls, Page 4, Narrative paragraph 4 states in part, *"the required, signed non-storm water evaluation certification and evaluation is not included."

See response in Part II (2). We believe that the MSGP requirement regarding a non-storm water certification applies to the Laboratory's discharges, not those owned by the Los Alamos County.

(11) Storm Water Pollution Prevention Plan (SWPPP), -Part 4.9 - Annual Site Compliance Evaluation Reports, Page 4, Narrative paragraph 1 states in part, *"You must conduct facility inspections at least once per year."*

See response in Part II (3).