



*State of New Mexico*  
**ENVIRONMENT DEPARTMENT**  
**DOE OVERSIGHT BUREAU**  
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**M E M O R A N D U M**

**TO:** Tim Zimmerly, Spills Coordinator, Los Alamos National Laboratory  
**FROM:** Erik Galloway, Hydrologist, NMED, DOE Oversight Bureau  
**SUBJECT:** Information request for TA-50 Pumphouse spill on 8/29/2005  
**DATE:** August 31, 2005

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The following is request for follow-up information pertaining to the spill investigation reported to the New Mexico Environment Department on August 29, 2005 at the Pumphouse located at TA-50.

Please provide the following information:

1. The NPDES construction general permit number that the activities were conducted under;
2. A site specific map detailing the location of the spill and the effected SWMU site numbers and locations;
3. A copy of the Storm Water Pollution Prevention Plan that the activities were conducted under;
4. Copies of the photo documentation of the site taken by LANL staff;
5. A copy of the water quality sample laboratory analysis data of the "Basement" water that was conducted at the site after the release.

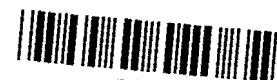
Please provide this information as soon as possible so that I can complete my report on this matter.

Thank you for spending the time with me at the site and I am looking forward to working with you in the future.

If you have any questions please feel free to call me at (505) 428-2547.

cc. John Young, Environmental Sci. & Spec., HWB  
 Christopher Vick, Hydrogeologist, GWQB  
 Frank Rodarte, Environmental Sci.& Spec., HWB  
 Bret Lucas, Environmental Sci.& Spec., HWB  
 File

LANL TA-50 [50-006a, TA-35 Summary/Docs]



9043

**Young, John, NMENV**

**From:** Ford-Schmid, Ralph, NMENV  
**To:** Young, John, NMENV  
**Cc:**  
**Subject:** FW: SWMU/PRS Id's  
**Attachments:**

**Sent:** Thu 9/1/2005 1:50 PM

FYI

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**From:** Timothy Zimmerly [mailto:tzimmer@lanl.gov]  
**Sent:** Thu 9/1/2005 1:48 PM  
**To:** Ford-Schmid, Ralph, NMENV  
**Cc:** Galloway, Erik, NMENV; saladen@lanl.gov  
**Subject:** SWMU/PRS Id's

Ralph,  
These are the SWMU/PRS Id's that may have been potentially impacted by the release of storm water from the TA50 Pumphouse construction site. The extent of the flow was approximately 0.75 mile.  
As I discussed with Erik, I will need to send all maps, photos and documents that you requested thru an ADC and S-7 for their approval before sending them to you. Please call with any questions.  
Thanks

SWMU/PRS ID  
50-009  
50-006(a)  
50-004(c) aka 50-004(a)00  
50-011(a)

C-35-007  
35-010(a)  
35-010(b)  
35-010(c)  
35-010(d)  
35-010(e)  
35-016(j)

**Tim Zimmerly, CPESC**  
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**Los Alamos National Laboratory**  
**MS K497**  
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Notes on TA-50 Pump House spill reported on 8/29/2005. Erik Galloway, Hydrologist, DOE Oversight Bureau.

Overview: Spill was reported on 8/29/2005 to the emergency hotline at Hazardous Waste Bureau. Spill happened at approximately 12:45 pm and was reported within 24 hours as required by 20.6.2 NMAC 20.6.2.1203 Notification of Discharge-Removal. Spill was approximately 18,000 gallons of storm water that was evacuated from "basement area" of pump house construction site at TA-50 into aboveground bermed holding pond. The area received approximately 1.5 inches in one hour on Wednesday 8/24/2005 and additional rainfall during the weekend. Prior to site reconnaissance, I contacted John Young and Frank Rodarte of the Hazardous Waste Bureau, Chris Vick of the Ground Water Quality Bureau and Bret Lucas of the Surface Water Quality Bureau. LANL representatives were Tim Zimmerly, Spills Coordinator, Paula Diepoler, LANL Project Leader, University Of California and Jerry Taffie, Site Construction Manager, Austin Company (Contractor). The construction activities are regulated by "general" permit #NMR05A735.

Reconnaissance: At approximately 1:00 pm on 8/30/2005, I met Tim Zimmerly at TA-59 and followed him to TA-50 where the spill occurred. Weather was clear and approximately 89 degrees. Upon entrance to the site, I signed in and was given safety vest, eye protection and hardhat. I was met by Paula D. and Jerry T. on-site and was given a brief overview of site, construction work and spill. In general, the area was highly impacted from the construction activity and spill. Mud, loose and/or excavated soil, and construction debris was present throughout the site. BMPs in place were two silt fences and some terracing. A trench was excavated at the last minute on the east side of the holding pond down gradient of the site between the holding pond and Ten-Site Canyon to contain the spill. This trench proved to be unsuccessful. The holding pond was approximately 75 to 100 square feet with a 10 foot wall on the south side and 5 foot walls on all other sides. Soil was used from "basement" excavation site and soil was tapped within the holding pond area. The temporary holding pond and emergency trench showed signs of breach and spill. Holding pond was still saturated and base of south pond slope toward "basement" area showed further signs of saturation. This was brought to attention of Austin employees as a possible area of concern. Evacuation of emergency trench could have been a factor in final berm failure. Austin staff stated "spill followed four different pathways" 1) Through adjacent parking lot and down northern slope of Ten-Site Canyon; 2) Directly down west-facing slope of Ten-Site Canyon after breaching silt fences; 3) Down culvert to north side of construction area and then into Ten-Site Canyon; and 4) Down slope into "basement area". Austin staff also said that once spill entered Ten-Site Canyon, it continued down approximately  $\frac{3}{4}$  to 1 mile until it infiltrated into soil. Spill site contained two SWMUs, one at "basement" location and one on Ten-Site Canyon slope. BMP implementation was discussed. Austin staff said that, "silt fences were installed on site before construction started" Inadequacy was discussed as well as possible emergency BMPs that could have been used to mitigate spill. (i.e. inflatable or straw berms, emergency pumping, etc.). I was then informed that Austin was bringing in a 10,000 gallon tank to replace temporary holding pond and that seepage and "basement" dewatering would be directed into tank. LANL and contractor staff identified several SWMUs/PRs (50-009, 50-006(a), 50-004(c) aka 50-004(a)00, 50-

011(a)) were potentially impacted from the spill. Possible impacts to SWMUs were discussed. Two samples were taken in 4 liter plastic cubic containers at temporary holding pond and in "basement". Samples were marked and placed in ice chest with ice to cool to 4 degrees Celsius for transport to refrigeration units at DOE OB for possible further analysis. Photographs and photo documentation were discussed because of security concerns as well as construction permit number, SWMU identification numbers, Storm Water Pollution Prevention Plan SWPPP) availability, and laboratory analysis data from "basement" sample taken after spill event. (Please see attached memo dated 8/31/2005 to Tim Zimmerly)

Samples: 8/30/2005 TA-50 Pump House spill on 8/29/2005.

- 1) Upper-holding pond 2:02pm.
- 2) Lower "basement" 2:10pm.

Lessons Learned: NMED

- Prepare ready-to-go spill response kit, which includes sampling containers, safety equipment and documentation.
- If camera is permitted, walk site with LANL staff and take pictures and document site even if they have already done it.
- Put together contact list with names, numbers and e-mails of NMED and responsible party contacts.

Lessons Learned LANL:

- During the interview I was asked several times, "Is this spill reportable and if it is, under what?" I gave Tim Z. a copy of the NMAC regulations and told him it was reportable under NMAC 20.6.2.1203 Notification of Discharge-Removal. I explained that the spill was "reportable" especially one of this magnitude. It appears that education on spill reporting requirements needs to be done with LANL and their "contractors".
- LANL staff and "contractors" need to be educated about the SWPPP. The SWPPP should be available "on-site" at all times, either for purposes of an inspection or for a reference. Additionally, the project managers and operators should have reviewed the SWPPP before construction starts and know what to do if a spill happens. Also, all site managers and operators need to have the SWPPP available so that if spill happens, they can quickly identify all potentially affected SWMU's and the remedial actions required.