

Permit



State of New Mexico
ENVIRONMENT DEPARTMENT
DOE OVERSIGHT BUREAU
P.O. Box 1663, MS/J-993
Los Alamos, New Mexico 87545



LANL General (11/12/99)

GARY JOHNSON
GOVERNOR

PETE MAGGIORE
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November 3, 1999

Mr. Joe Vozella, AIP POC
U.S. Department of Energy
Los Alamos Area Office
528 35th Street, MS A316
Los Alamos, NM 87544

Re: **Inspection Observations and Recommendations concerning NPDES spill closures scheduled for deletion.**

Dear Mr. Vozella:

On October 15, 1999 several NPDES spill sites were inspected for closure by Robert Wingo (NMED DOE-OB) and Harvey Decker of ESH-18 (LANL). The six sites inspected were:

<u>Site</u>		<u>Date of spill notification</u>
TA-53-64	Cooling Tower Collapse and Discharge	June 10, 1998
TA-41/2	Broken Potable Water Line	February 2, 1999
TA-3-261	Otowi cafeteria, grease trap overflow	November 16, 1998
TA-3	Broken Potable Water Line	February 8, 1999
TA-48	DLW Subsurface line break	January 29, 1999
TA-46	SWSC Overflow	March 24, 1999

If you have any questions please call Robert Wingo at 672-3151.

Sincerely,

Steve Yanicak
Program Manager, LANL POC

SY:rw

cc w/attachment:

- Steve Rae, LANL, Group Leader, ESH-18, MS K497
- John Parker, NMED, Chief, DOE-OB
- Harvey Decker, LANL, ESH-18, MS K497
- Barbara Hoditscheck, NMED, SWQB
- Ralph Ford-Schmid, NMED, DOE-OB

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LANL/Non-HSWA Regulatory/NPDES

LOCATION: TA-53-64
Cooling Tower Collapse and Discharge

DATE of Occurrence: June 10, 1998
DATE of Investigation: October 15, 1999

A estimated 3,000 gallons of treated cooling water was released from cooling tower 64. The release occurred because some external wooden louvers rotted, failed and directed water flow to the ground adjacent to the cooling tower. The release did not reach a water course and all water was determined to have been contained on the mesa top. The bulk of the water infiltrated into the soil except for one small pool, which remained on an asphalt road down gradient and south of the cooling tower. Soil and sediment samples were collected and submitted for metals analysis to Assaigai Analytical Laboratories, Inc. in Albuquerque, NM.

Soil and sediment analysis indicate the possibility of elevated barium and chromium. Barium concentrations in soil were determined to be ~45-58 ppm and chromium concentrations in soil were detected at 3.3-5.1 ppm. Arsenic, cadmium, selenium and silver concentrations in soil were below detection or slightly higher than detection limits as reported on the certificate of analysis. Metal concentrations in the water samples indicate arsenic at 6 ppb.

DOE-OB recommends this spill for closure; however, there are a two items of concern related to the construction efforts being conducted at this site. North of cooling tower 64, along the mesa edge at TA-53 and incident with the NPDES discharge pipe located at this facility, there is an eroded channel in the cliffside which should be inspected for applicable erosion control efforts. Further, the ongoing construction efforts associated with new cooling towers to the west of tower 64 also require some soil and sediment erosion control.

LOCATION: TA-41/2
Broken Potable Water Line

DATE of Occurrence: February 2, 1999
DATE of Investigation: October 15, 1999

Uphill(west) from the Omega west reactor a broken potable water line released an estimated 500,000 gallons of potable water. Flow extended downgradient(eastward) along the access road to just beyond the entrance to TA-2(Omega West). Water and the related sediment load did enter the Los Alamos Canyon watercourse approximately 50 feet north and slightly east of the line break. The ruptured section of line was isolated and the discharge was halted by valving the section off.

Excavation and repair of the line break occurred immediately and BMP's were emplaced at the site of the line break during excavation and repair to minimize any further sediment impact to the LA Cyn watercourse. Silt fencing and hay bale barriers were also emplaced downstream from the line break, in a depression, allowing for water retention and subsequent infiltration resulting in minimal future impacts due to stormwater runoff and the related mobilization of sediment packages that were deposited as a result of the line break. Damage to the asphalt of the access road was repaired by filling and patching.

A previous post-accident site investigation was conducted by B. Hoditschek and J. Archuleta, of NMED, on February 9, 1999. It was agreed that removal of the deposited sediment packages would result in further streamcourse damage and was not deemed necessary.

There was a minor disruption of the topography of the watercourse due to this event; however, it does not appear to be seriously detrimental to the environment **nor are there any visually obvious impacts which would warrant this site not being recommended by DOE-OB for closure.**

LOCATION: TA-3-261
Otowi cafeteria, grease trap overflow

DATE of Occurrence: November 16, 1998
DATE of Investigation: October 15, 1999

An estimated 2,000 gallons of a grease/water mixture was released due to a plugged pipe in the grease trap associated with Otowi cafeteria. The flow extended approximately 75 yards to a storm drain which empties onto SWMU 3-013(a&b) located 400 yards from the original discharge point. Flow from the discharge point of the storm drain traveled ~75 feet down-gradient.

The entire area impacted by the discharge was disinfected with a 10% bleach solution applied with a hand sprayer. The storm drain was blocked and the affected area was washed down. All wash water was vacuumed into a container truck for disposal. The impacted storm drain and associated drainage was also disinfected and wash water collected for proper disposal.

This grease trap has had a history of overflow. Currently, remedial actions include daily inspections until reconfiguration or design of the trap is realized. Sampling of the grease/water or impacted soils and watercourses did not occur.

DOE-OB recommends this spill for closure with noted concerns. It is apparent that the current design and/or maintenance of this grease trap is inadequate. Institutional controls(inspections) need to be continued and replacement of the trap should be considered.

LOCATION: TA-3
Broken Potable Water Line

DATE of Occurrence: February 8, 1999
DATE of Investigation: October 15, 1999

Approximately 6,000 gallons of potable water were released due to a broken 3 inch potable water line. Flow occurred for approximately 20 feet prior to entering a storm drain that is located at TA-3 between buildings 105 and 43. Water flow exited a storm drain which empties onto SWMU 3-013(a&b) located 400 yards from the original discharge point and is incident with the now deleted 03A023 NDPES outfall. The line was valved off and repaired with no evidence of sedimentation or erosional damage were noted at the discharge point or the storm drain.

There was evidence of subsidence/erosion of soil around the concrete foundation for the entrance to the storm drain on the date of inspection; however, it is not evident that this subsidence was a result of this release and is likely due to annual summer storm events.

DOE-OB recommends this spill site for closure with one concern. The subsidence around the foundation of the entrance to the storm drain should be repaired.

LOCATION: TA-46
SWSC Overflow

DATE of Occurrence: March 24, 1999
DATE of Investigation: October 15, 1999

An estimated 20,000 gallons of partially treated sanitary waste was released due to improper valve positioning during clarifier equilization/wasting operations. The spill was halted by placing the valve in the correct(open) position. Approximately 10,000 gallons of this waste was recovered by vacuum/pump truck and returned to the treatment system. The affected area was disinfected using a 1% chlorine and water solution. Standard Operating Procedures for valving operations were updated and developed and additional SOP's were developed for disinfection practices and dumping of vacuum trucks into the treatment works.

This release was determined to have bypassed the 13S outfall and no SMWU's or PRS's were impacted as reviewed on-site using the ER RFI for operable unit 1140.

DOE-OB recommends this spill site for closure.

LOCATION: TA-48
Broken, sub-surface, Domestic Liquid Waste Line

DATE of Occurrence: January 29, 1999
DATE of Investigation: October 15, 1999

An unknown volume of DLW was released from a broken DLW line. The broken line was discovered January 1, 1999 following insertion of a portable, remotely operated camera into the line in order to determine why the upstream DLW manhole was having poor flow/overflow. The manhole was plugged and all effluent was pumped around the underground breaks while repairs were conducted. The DLW line was replaced using a slip line and there have been no incidents of poor flow/overflow following repair. A small wetlands is immediately downgradient from the area of the line break; however, there is no evidence of the wetlands being negatively impacted.

DOE-OB recommends that this spill site be closed.