



Department of Energy
 Carlsbad Field Office
 P. O. Box 3090
 Carlsbad, New Mexico 88221
 OCT 31 2008



Mr. Clint Marshall
 Ground Water Pollution Prevention Section
 New Mexico Environment Department
 P.O. Box 26110
 Santa Fe, NM 87502

Subject: Notification of Discharge

The purpose of this letter is to confirm the U. S. Department of Energy's (DOE), Carlsbad Field Office (CBFO) verbal report to you on the morning of October 23, 2008, following an initial phone message left on October 22, 2008. This report was made by Mr. H. L. (Jody) Plum, DOE/CBFO. On October 28, Mr. Plum again contacted you to seek an extension of time to provide this written response. You verbally granted his request, allowing for submittal of this Notification before close of business day October 31, 2008.

This information is being provided to you in accordance with the WIPP Discharge Permit (DP-831) which references 20.6.2.1203 NMAC, NOTIFICATION OF DISCHARGE-REMOVAL:

- (a) The name, address, and telephone number of the person or persons in charge of the facility, as well as of the owner and/or operator of the facility:

Person in charge of the facility: David C. Moody, Manager
 4021 National Parks Highway
 Carlsbad, New Mexico, 88220
 (575) 234-7300

Owner of the facility: U. S. Department of Energy

Operator of the facility: Washington TRU Solutions LLC

- (b) Name and address of the facility:

U. S. Department of Energy
 Waste Isolation Pilot Plant
 30 miles East of Carlsbad, New Mexico off of State Highway 128
 Carlsbad, NM 88220

SCANNED



(c) The date, time, location, and duration of the discharge:

Date: October 16 through the present

Time: Approximately 8:00 a.m.

Location: WIPP Site, Salt Storage Extension Basin (SSEB)

Latitude: 32 22.589, Longitude 103 47.746

Duration: 17 days to date, assuming that the water level in the SSEB rose above the elevation of the spillway between the SSEB and the Salt Storage Extension (SSE) on October 15, 2008. The duration could be as long as an additional 15 days as described in the corrective actions under Item (g) of this letter.

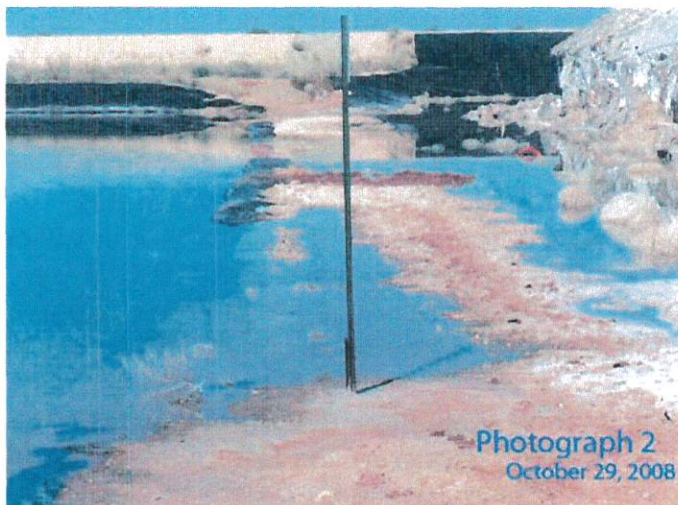
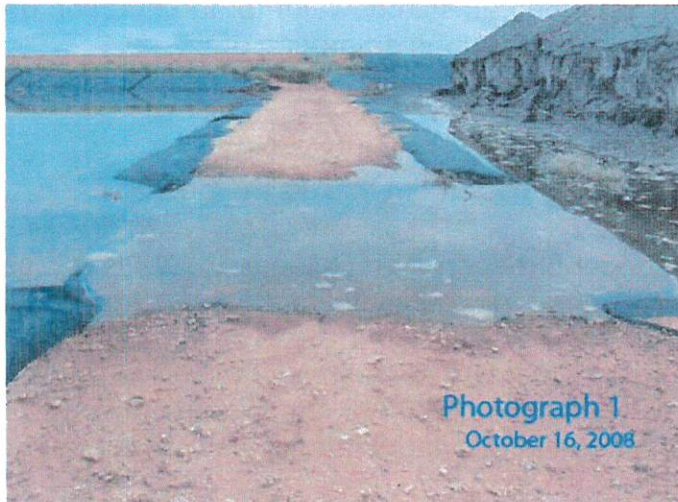
(d) The source and cause of the discharge:

Source: 2.96 inch rainfall

Cause of discharge:

Between 5:00 p.m. Monday October 13, 2008, and 8:00 a.m. Tuesday October 14, 2008, the WIPP site received a 2.96 inch rainfall. Prior to this rainfall event, the SSEB had approximately two to two and half feet of freeboard. The 2.96 inch rain event over the 1,048,000 square foot SSE drainage area resulted in approximately 1,933,000 gallons of water entering the SSE and SSEB. By October 15, 2008, sufficient water had drained from the SSE to fill the SSEB above the one foot of freeboard required by DP-831.

In accordance with DP-831, Section III, Condition 3, a corrective action plan was being prepared for submittal to the GWQB; however, on October 22, 2008, it was discovered that further drainage caused the water level to rise above the elevation of the spillway between the SSE and the SSEB. The spillway in the center of the berm between the SSE and the SSEB is not protected from infiltration with a liner. Photograph 1 illustrates the discharge area as observed on October 16, 2008. On October 29, 2008, while preparing to protect the spillway from infiltration using high density polyethylene and sandbags it was discovered that the water level had slightly risen, enlarging the area of the berm subject to the infiltration of salt contaminated water. Photograph 2 illustrates the discharge area as observed on October 29, 2008.



- (e) A description of the discharge, including chemical composition:

The discharged water is storm water that has been in contact with salt and is high in total dissolved solids and chlorides. The last discharge monitoring report for this water reported a total dissolved solids concentration of 339,500 mg/l, chlorides at 260,000 mg/l, and sulfate at 16,900 mg/l.

- (f) The estimated volume of the discharge:

The unlined spillway is approximately one foot deep, 10 feet wide and 10 feet long. The discharge area initially encompassed approximately 25 feet by ten feet. The deepest water would be one foot deep over the 100 square foot spillway. The volume of water in the spillway would be approximately 800 gallons subject to

infiltration for the duration of the discharge. Additional square footage along the 290 foot berm has been exposed to less than an inch of water for the duration of the discharge as illustrated in Photos 1 and 2. Upon saturation of the soil, infiltration would be minimal. All other water is contained in the SSE or SSEB and is contained by high density polyethylene liners.

- (g) Any actions taken to mitigate immediate damage from this discharge:
- Upon identifying the loss of one foot of freeboard on October 15, 2008, a corrective action plan was being prepared for submittal to the NMED as required by DP-831.
 - Upon discovery that the elevation of water had risen above the spillway between the SSEB and the SSE on October 22, 2008, a corrective action plan was being formulated whereby sandbags and liner material would have been emplaced to halt the discharge.
 - On October 29, 2008, when it was discovered that the water level had slightly risen, it was determined that sandbagging the spillway was not going to be a practical option. Revised interim corrective actions now include; modifying the salt pile in the SSE by shoring up the existing three foot berm forming a holding pond on top of the salt pile. Water will be pumped from the SSEB into the holding pond on the salt pile. Since the water is saturated with the salt, the holding pond constructed of salt should hold the water until it evaporates. When sufficient water has been removed from the SSEB, a HDPE liner will be welded to join the liner in the SSE to the liner in the east side of the SSEB to protect the berm from infiltration in the event of any future overflow. Every effort will be made to implement this interim corrective action by November 14, 2008.
 - DOE proposes to conduct an engineering evaluation to determine what permanent corrective actions can be taken to prevent the loss of freeboard in the SSEB in the future and provide adequate volume for collection of precipitation caused runoff from Cells A & B. Options available for evaluation may include, but are not limited to, construction of a new pond, enlarging the existing pond or increasing evaporation rates by pumping water into a lined or unlined holding pond constructed on the salt pile. We propose to provide to you an outline of activities by November 14, 2008, and then on or about December 31, 2008, provide a detailed schedule of activities to implement the permanent corrective actions to the Groundwater Quality Bureau.

OCT 31 2008

Clint Marshall

-5-

We believe this discharge poses minimal threat to groundwater. The infiltration controls installed by the DOE at the WIPP site have greatly minimized the infiltration of salt contact storm water run-off into the subsurface. The corrective actions described in this report are intended to meet all the reporting requirements of 20.6.2.1203 NMAC and DP-831 as renewed on September 9, 2008. If you have any further questions regarding this matter or need additional information please contact H. L. Plum at (575) 234-7462.

Sincerely,



Dave Moody
Manager

cc:

J. Bearzi, NMED/HWB *ED

S. Zappe, NMED/HWB ED

*ED denotes electronic distribution