



**DEPARTMENT OF THE ARMY**  
FORT WINGATE DEPOT ACTIVITY  
P.O. BOX 268  
FORT WINGATE, NM 87316

November 16, 2010

Mr. James P. Bearzi  
Chief, Hazardous Waste Bureau  
New Mexico Environment Department  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303

Dear Mr. Bearzi:

The purpose of this letter is to submit the Final Release Assessment Report Parcel 12 and Parcel 14 NMED Revision. The report was prepared for FWDA as required under RCRA Permit EPA ID No. NM6213820974. This revised report addresses comments presented to the Army in the New Mexico Environment Department (NMED) Notice of Disapproval (NOD) letter dated August 19, 2010.

The following are Army responses to NMED comments.

Comment 1:

In Section 4.2 (Site Reconnaissance Findings), the Permittee states that "debris was observed along the top of the south bank of the Rio Puerco valley that is assumed to have been placed to prevent erosion." It is unclear if the debris was actually removed. The Permittee must revise the Report to explain if the debris found along the top of the south river bank was removed or left in place. If it was left in place, the Permittee must provide an explanation for leaving it in place.

Response 1:

Section 4.2 was updated on page 9, lines 10-14 as follows, "The debris found within the vicinity of the south river bank near the south debris pile was removed. Rocks, boulders, and riprap were left in place along the south river bank for erosion control. The photos provided on pages C-11 and C-14 in Appendix C of the report shows the area of the river bank behind rocks that were left in place near the south debris pile area."

Comment 2:

In section 4.3 (Soil Investigation), the Permittee states "to evaluate the area, 10 discrete soil samples and 1 duplicate was taken in the north and south debris piles." The Permittee also states that "samples were taken at two different depths at each location

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for a total of 10 samples." The Permittee does not specify the depths soil samples were collected. The Permittee must revise the Report accordingly.

**Response 2:**

Section 4.3 was updated on page 10, lines 17-22 as follows, "To evaluate the area, 10 discrete soil samples and 1 duplicate were taken in the north and south debris pile areas. Six discrete samples were taken from three locations at the north debris pile area and four discrete samples were taken from two locations at the south debris pile area. Each discrete soil sample was taken at a depth of 3" and 12" for a total of 10 samples. A duplicate sample was taken at one of the locations in the north debris pile area."

**Comment 3:**

The Permittee states that debris was removed from the debris piles; however, the Permittee does not include a discussion on the type of waste that was generated during the removal process or the manner of the final disposition of the waste. The Permittee must revise the Report to include a discussion of the volume and type of waste generated during this investigation (e.g., debris and soil) and where the waste was disposed.

**Response 3:**

Text was added to Section 4.3 on page 10, lines 7-12 as follows, "Parcel 12 debris removal consisted of construction debris with soil and asbestos piping. The amount of construction debris with soil removed totaled 1,353.17 tons and was disposed of at the Red Rock Regional Landfill in Thoreau, New Mexico as non-hazardous waste. In addition, the asbestos contaminated piping removed totaled 1.76 tons and was disposed of at the Painted Desert Landfill (CWM) in Joseph City Arizona. See Appendix F for waste disposal records."

**Comment 4:**

The Permittee provides the chemical analytical results for the soil samples collected at Parcels 12 and 14 in Appendix A; however, the Permittee does not include the laboratory reports. The Permittee must revise the Report to include the laboratory reports (an electronic copy is preferable).

**Response 4:**

An electronic copy of the September 2009 sampling event lab reports from TestAmerica included on the CD of this report. An electronic copy of the July 2009 sampling event lab report from APPL included on the CD of this report.

A statement is included at the end of section 1.0 Introduction, page 5, lines 30-31 as follows, "In addition, the laboratory reports for each event are included as electronic copies on the CD of this report."

A statement is included at the end of section 4.2 Site Reconnaissance Findings, page 9, lines 30-31 as follows, "The laboratory report for the July 2009 event is included as an electronic copy on the CD of this report."

A statement is included at the end of the third paragraph, section 4.3 Soil Investigation, page 10, lines 14-15 as follows, "The laboratory report for the September 2009 event is included as an electronic copy on the CD of this report."

**Comment 5:**

The tables provided in Appendix A contain a number of constituents with reporting limits and sampling results that exceed the 2009 New Mexico Environment Department Soil Screening Levels (NMED SSLs), the 2009 EPA Regional Screening Levels (RSLs) or both. The Permittee must provide an explanation or a discussion of these exceedances, reporting limits, and their implications in the revised Report.

**Response 5:**

Text was updated and added to Section 4.4 Analytical Results, page 11, line 27 through page 12, line 40 as follows, "In addition, the laboratory is required to "J" flag data to the method detection limit (MDL) if any concentrations are detected in order to be compliant with the latest version of the Department of Defense Quality Systems Manual (DoD QSM). None of these constituents were "J" flagged as an estimated value. Therefore, based on the information in this report, there were actually no samples within AOC 93 that had detected constituents that exceeded December 2009 NMED or December 2009 EPA screening levels. The constituents with RLs exceeding screening levels include the following:

The RLs for Polychlorinated Biphenyls (PCBs) were above the NMED SSL. PCBs can be found in electrical transformers that were present at FWDA. However, as discussed in section 5.0, one former transformer was located in Parcel 12 and none are located in Parcel 14. The former transformer within Parcel 12 was a non-PCB transformer, removed and manifested for off-site disposal, with no evidence of a release at the former location. The MDL for total PCBs was about 0.11 mg/kg depending on the individual sample. The individual PCB SSLs for the seven common aroclors range from 1.12 mg/kg to 3.93 mg/kg. The MDL is below the PCB SSLs for these seven aroclors. The MDL is below the RSL of 2.2 mg/kg. There were no detections of PCBs above the MDL;

The RLs for 1,3-butadiene were above the NMED SSL and EPA RSL. This compound was mainly used to create synthetic rubber during World War I and World War II and was used in truck tires. However, since tires were not made at FWDA, the Army believes that this constituent would not be present due to releases during manufacturing. This constituent can also be produced as a byproduct of the steam

cracking process used to produce ethylene and other olefins, produced through the catalytic dehydrogenation of normal butane, used to make plastics including acrylics, and small amounts are found in gasoline. However, 1,3-butadiene quickly evaporates to the air as a gas from leaks during production, use, storage, transport, or disposal as well as from water and soil. Since it evaporates so easily, it is not expected to be found in water or soil. The MDL for 1,3-butadiene was about 1.10 mg/kg depending on the sample and just above the soil screening criteria of 0.795 mg/kg (NMED SSL) and 0.54 mg/kg (RSL). This compound was not detected above the MDL.

While the RLs for acrolein were above the EPA RSL, this compound was more than likely never used at FWDA. Acrolein was principally used as a biocide to control plants, algae, molluscs, fungi, rodents, and microorganisms. Acrolein has also been used in the manufacture of other chemicals, as a warning agent in gases, as a test gas for gas masks, in the manufacture of colloidal metals, and in leather tanning. The MDL for acrolein was about 0.09 mg/kg depending on the individual sample and was lower than the soil screening criteria of 0.646 mg/kg (NMED SSL) and 0.15 mg/kg (RSL). This compound was not detected above the MDL;

The RLs for benzidine were above the NMED SSL and EPA RSL. However, this compound was not used at FWDA. Benzidine is a manufactured chemical that was used to produce dyes. Most people are not exposed to benzidine in the environment unless they live near uncontrolled hazardous waste sites;

The RLs for dibenzo(a,h)anthracene were above the EPA RSL. However, this compound was not used at FWDA. Dibenzo(a,h)anthracene is a polycyclic aromatic hydrocarbon (PAH) with no commercial production or known use. It occurs as a component of coal tars, shale oils, and soots and has been detected in gasoline engine exhaust, coke oven emissions, cigarette smoke, charcoal broiled meats, vegetation near heavily travelled roads, and combustion sources;

The RLs for N-nitrosodimethylamine were above the NMED SSL and EPA RSL. However, this compound was not used at FWDA. N-nitrosodimethylamine was produced by industry only in small amounts for research; and

The RLs for benzo(a)pyrene were above the EPA RSL. However, this compound was not used at FWDA. Benzo(a)pyrene is a PAH found in nature from the eruption of volcanoes and forest fires. It can be found in surface water, tap water, rainwater, groundwater, wastewater and sewage sludge. This chemical results from burning plants, wood, coal, and operating cars, trucks, and other vehicles. There is no known industry production or use of benzo(a)pyrene.

In addition, the following has been added to the Notes section of the data report in Appendix A, page A-99, under "Exceeds NMED SSL and Exceeds EPA RSL Columns, "As required by the laboratory, if any of the constituents with a "Yes" value had been detected between the MDL and RL, the result would have been qualified with a "J" flag meaning it was an estimated value."

**Comment 6:**

Based on the "Notes" at the end of Appendix A, the Permittee states that the depth of sample is part of the sample ID nomenclature. However, this method for presenting the sampling depths is unclear (e.g., it is not clear what depth "12" represents). The Permittee must revise the tables to include the sampling depths in a separate column for each sample collected.

**Response 6:**

The Sample ID column of the data report in Appendix A has been updated to read, "Sample ID Depth in Inches\*\*."

The Notes section of the data report in Appendix A, page A-99, explains the depth of sample below ground surface (bgs) under the Sample ID nomenclature heading. The example shown is depth of sample bgs: 06 (meaning 0 to 6 inches). Additional examples have been added under this section to show an example for each type of sample listed in the data report:

612 is 6 to 12 inches;  
03 is 0 to 3 inches; and  
12 is 12 inches.

This approach was used because there would not be enough room to fit all of the data information on one page if a sampling depth was shown in a separate column. The depth is already part of the sample ID so it has been explained in more detail within the Notes section at the end of the data report. The depths are noted with \*\* as is shown in the Sample ID column of the data report.

Copies of this report will be sent to all of the stakeholders once NMED approves this report. If you have questions or require further information, please call me at (330) 358-7312.

Sincerely,



Mark Patterson  
BRAC Environmental Coordinator

Enclosures

CF:

Tammy Diaz, NMED, HWB

Media

1 Hard Copy, 1 CD (included with Bearzi)

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Date 16 Nov 2010 Sender's FedEx Account Number 2403-2422-9

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2 Your Internal Billing Reference  
Part 21 addresses will appear on bills.

3 To Recipient's Name Mr. James Bearzi Phone 330-358-7311 *Evap*

Company New Mexico Enviro. Dept.

Recipient's Address Chief Haz. Waste Bureau

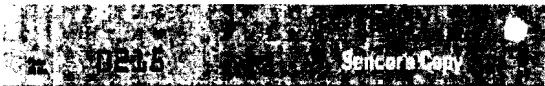
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 HOLD Saturday at FedEx Location

**7 Payment**

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