



BILL RICHARDSON
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Telephone (505) 428-2500
Fax (505) 428-2567
www.nmenv.state.nm.us

FB04



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

December 30, 2004

Keith Landreth
Attn: ATZC-DOE (Landreth)
Bldg. 624
1733 Pleasonton Road
Fort Bliss, New Mexico 79916-6812

**SUBJECT: NOTICE OF DEFICIENCY
WORKPLAN – SUPPLEMENTAL RCRA FACILITY INVESTIGATION –
OROGRANDE LANDFILL / SWMU-25 / FTBL-14
FORT BLISS, NEW MEXICO
EPA ID NO. NM4213720101-01
HWB-FB 04-001**

Dear Mr. Landreth:

The New Mexico Environment Department (NMED) has reviewed Fort Bliss' *Workplan – Supplemental RCRA Facility Investigation – Orogrande Landfill / SWMU-25 / FTBL-14 - Fort Bliss, New Mexico*, submitted on November 18, 2004.

NMED has determined that this work plan is not adequate and that changes are necessary before it can be approved. Therefore, NMED is issuing Fort Bliss with this Notice of Deficiency (NOD). NMED's comments are included below. Fort Bliss must address these comments and submit a revised work plan within 60 days of receipt of this letter. Fort Bliss must include a response letter with its revised work plan that details where revisions have been made, cross-referencing NMED's numbered comments.

Comments

1. Fort Bliss must submit a second copy of its proposed RCRA Facility Investigation (RFI) Work Plan and two copies of its revised RFI Work Plan.
2. NMED is unable to read the enclosed CD-ROM. Fort Bliss must submit a revised CD-ROM without any special security provisions.
3. Figures 2-1 through 2-6 were not provided. Fort Bliss' revised work plan must include all Work Plan figures.
4. Attachment D was not provided. Fort Bliss' revised work plan must include Attachment D.
5. Section 1.2 (*Regulatory Framework*) is incorrect. After Fort Bliss has implemented its proposed RFI Work Plan, it must submit to NMED a RCRA Facility Investigation (RFI) Report, not a Voluntary Corrective Action (VCA) Report, in order to comply with its permit. After the approved RFI Work Plan has been implemented and a RFI Report submitted, NMED will review the results to determine whether Fort Bliss has adequately characterized Solid Waste Management Unit (SWMU) 25 or whether additional investigation and/or corrective measures are required. If Fort Bliss is able to demonstrate that no release has occurred, then NMED will recommend that Fort Bliss submit a No Further Action (NFA) petition. Fort Bliss must revise its RFI Work Plan to refer to the future submittal of the required RFI Report. If corrective measures are required, NMED will specify what actions Fort Bliss is required to take.
6. As discussed in Comment 5, Fort Bliss must submit a RFI Report after implementing its RFI Work Plan. Fort Bliss must revise Section 1.3 appropriately.
7. NMED informed all RCRA regulated facilities in New Mexico on January 23, 2001, that industrial risk-based screening soils for soils could not be used to determine whether a threat to either human health or the environment exists. NMED will not approve work plans or reports that propose the use of industrial or occupational cleanup standards until such time as statutory authority is created that allows NMED to restrict future land use. Fort Bliss must revise Section 1.3 and the entire RFI Work Plan to specify that it will compare all analytical results to residential standards. Fort Bliss may, at its discretion, include industrial standards for comparison.
8. Section 2.0 (*Site Background and Setting*) briefly discusses the operations at its Orogrande landfill between 1983 and 1994. Fort Bliss Fort Bliss must revise Section 2.0

to address how solid waste was historically handled at the Orogrande Range Camp before 1983 and after 1994.

9. Section 2.3 (*Previous Investigations*) briefly discusses Fort Bliss' 1997 RFI Report on SWMU 25, but does not address data gaps. Fort Bliss must revise Section 2.3 by including a discussion on data gaps and must specifically discuss why Fort Bliss did not collect all of the samples proposed in its 1996 RFI Work Plan.
10. Section 2.3 refers to "background" soil concentrations when summarizing its 1997 RFI Report; however, the 1997 RFI Report did not discuss the specific statistical procedures used to determine "background."
11. Section 2.3 indicates that the geotechnical analysis of the "cover" demonstrates that the hydraulic conductivity values exceeded those required by the New Mexico Solid Waste Management Regulations (SWMR). In fact, only one of two soil cap samples met the SWMR standards. As Fort Bliss also notes in Section 2.3, the cap has subsided, making the hydraulic conductivity argument irrelevant. Fort Bliss must revise Section 2.3 appropriately.
12. Fort Bliss must revise Section 2.3 to discuss the analytical results of the tar material samples.
13. Section 2.3 states that there are no identifiable potential receptors. This is incorrect and contradicts information that Fort Bliss has previously submitted to NMED. SWMU 25 is located in the northern part of the Chihuahuan Desert Biotic Province and, as Fort Bliss reported in its 2002 VCA Report for SWMU 20, the fauna of desert grasslands is both "rich and diverse." Fort Bliss must revise its RFI Work Plan to include a Screening-Level Ecological Assessment (SLERA) of SWMU 25. Fort Bliss must follow NMED's current ecological risk assessment guidance when revising its RFI Work Plan.
14. Section 4.0 (*RCRA Facility Investigation Activities*) states that ten background soil samples will be collected. Fort Bliss must revise Section 4.0 to discuss in detail how the ten background soil samples will be statistically analyzed. As discussed in Comments 18 and 22 below, Fort Bliss must also analyze the background samples for organic constituents to demonstrate that the collected samples are suitable for determining background concentrations.
15. Fort Bliss must revise Section 4.0 to specify that it will compare its analytical results to residential standards for the reasons discussed in Comment 7.

16. Fort Bliss must revise Section 4.0 to specify that it will submit a RFI Report, not a Investigation Summary Letter, for the reasons discussed Comment 6.
17. Fort Bliss must revise Section 4.0 to specify that it will conduct a SLERA for the reasons discussed in Comment 13.
18. Fort Bliss must revise Table 4-1 to reflect the requirement to demonstrate that its background samples are, in fact, suitable for use as background samples by analyzing for organic constituents and that it will conduct a SLERA.
19. Fort Bliss incorrectly assumed that NMED would not review its proposed RFI Work Plan. Fort Bliss must revise Section 5.0 (*Project Schedule*) to allow for regulatory review and for Fort Bliss to revise its proposed RFI Work Plan. As NMED noted in its fee assessment letter of December 21, 2004, NMED conducts technical reviews of submittals in accordance with 20.4.2.200.A(7) NMAC.
20. Section 2.2 (*Task 2 – Field Investigation*) of Attachment A indicates that the unknown material at the “Tar Material Area” will be replaced into the trench. Fort Bliss reported in its 1997 RFI Report that the tar was approximately one inch in thickness and a few feet wide. Figure 4-4-5 of the 1997 RFI Report depicts the tar as being approximately 300 feet long and 25 feet wide (see Comment 31). Fort Bliss must revise Section 2.2 to discuss the purpose of digging a trench for material that it has reported to be approximately one inch in thickness. Fort Bliss must also revise Section 2.2 to specify how the tar material will be appropriately handled and disposed of. NMED does not consider burial of the tar material in an onsite trench to be appropriate disposal.
21. Section 2.2 of Attachment A indicates that two soil samples will be collected from the soil borings advanced adjacent to the tar material area. Fort Bliss must revise this section to specify that the two soil borings will be advanced in the middle of the tar material rather than adjacent to it.
22. Fort Bliss must revise Section 2.2 of Attachment A to specify that it will document that the proposed background soil samples are appropriate by analyzing for organic constituents as well as RCRA metals, as was done in the 1996 investigation. Fort Bliss must also revise this section to correctly indicate the SW-846 methods that will be used for soil analysis. Elsewhere, Fort Bliss specifies that it will analyze for RCRA metals using SW-846 Methods 6020 and 7471.
23. Fort Bliss discusses a “No Further Action Required” decision in Section 2.3 (*Task 3 – Reports*) of Attachment A. Based on the results of the investigation, Fort Bliss may recommend a “Determination of No Further Action” in accordance with Section IV.R of

its RCRA permit and 20.4.2 NMAC. If NMED agrees, then it will inform Fort Bliss that it should submit a No Further Action (NFA) Petition to modify its permit. As noted above, Fort Bliss must submit a RFI Report on the results of this investigation, not a "Summary Letter." The RFI Report may include a recommendation for a NFA determination. If NMED does not require additional corrective action, then Fort Bliss must submit a NFA petition for a Class I permit modification, not a RFI Report. Fort Bliss must revise Section 2.3 appropriately.

24. The last sentence in Section 4.0 (*Site Location*) of Attachment A has a typo.
25. Figure 5-1 (*Proposed Sample Locations*) of Attachment B.1 is a aerial photo. Although NMED encourages the use of aerial photos, photos do not substitute for a topographic base map. Fort Bliss must revise Attachment B.1 to include a detailed site map based on either a USGS topographic quadrangle map or a professionally surveyed site map. NMED recommends that Fort Bliss also retain the aerial photos. Figure 5-1 was included twice in Attachment B.1.
26. The appropriate soil screening standard is residential, not industrial. Fort Bliss must revise Section 4.0 (*Non-measurement Data Acquisition*) to reflect this requirement.
27. Fort Bliss must revise Section 5.1.1 (*Soil Boring*) to discuss how the "expected perimeter" of SWMU 25 was determined. To demonstrate that a release has not occurred, Fort Bliss must advance the soil boring at the margin of the landfill cells. Fort Bliss cannot demonstrate that a release has not occurred by collecting samples at an indeterminate distance from the "expected perimeter."
28. Fort Bliss proposes in Section 5.1 (*Soil Investigation*) of Attachment B.1 to collect a very limited number of samples from a very limited number of soil borings and to analyze those samples for a very limited number of parameters. NMED's next three comments address deficiencies in the location of the soil borings, the number of samples to be collected, and the analyte list.

One of the main objectives of the investigation is to determine whether a release of hazardous waste or hazardous constituents has occurred. To demonstrate that a release has not occurred, Fort Bliss must take a sufficient number of samples from an adequate number of locations and analyze those samples for all reasonably expected constituents.

29. Fort Bliss proposed to collect seven samples from five soil borings advanced to 50' bgs in its 1996 RFI Work Plan, but only collected samples from three of the soil borings. In its 1996 investigation, Fort Bliss collected one sample on the south end of the trench and two samples on the west margin of the trench but failed to collect samples from either the

north or east side of the trench. By doing so, Fort Bliss failed to demonstrate that a release had not occurred on the east or north margins of SWMU 25.

In its 2004 RFI Work Plan Fort Bliss proposes to install only three soil borings around the landfill; however, Fort Bliss proposes to collect ten samples to determine background. Because Fort Bliss has not provided a site map (such as Figure 4-4-5 in its 1997 RFI Report) NMED cannot approve the proposed location of the three soil borings. At a minimum, Fort Bliss must install three additional soil borings on the east side and one additional soil boring at the north end of the trench and also one additional soil boring on the west side of the trench located equidistant between SB25-1 and SB25-2. Without a detailed site sampling location map, NMED cannot approve the proposed location of MPB-3, but does agree that the proposed depth is appropriate.

30. Section 5.1 and Tables 5-1 and 5-2 of Attachment B.1 do not match and must be revised appropriately. Fort Bliss indicates that Table 5-1 specifies the sample depths (page 5-3); however, Table 5-1 only provides the proposed total depth for each soil boring. Section 5.1 does not actually discuss Table 5-2. The text in paragraph 1 on page 5-4 appears to indicate that the background surface soil samples will be analyzed for all the parameters in Table 5-2. However, it appears that the proposed sample depths for the three soil borings dedicated to the trench area are summarized in Table 5-2. NMED agrees with the proposed total depth of 30 feet bgs, but requires additional soil borings, more frequent sample intervals, and additional chemical analysis. Fort Bliss must revise Section 5.0 (*Field Activities*) to specify the following:

- Fort Bliss will advance a minimum of six soil borings, as specified in Comment 29;
- Collection of samples from each boring at the following intervals and depths: 0'-2'; 5'; 10'; 15'; 20'; 25'; and 30' bgs;
- Chemical analysis of all samples for BTEX, TPH-DRO, SVOCs, RCRA metals, pesticides, herbicides, and PCBs.

NMED approves Fort Bliss' proposal to collect geotechnical parameters from the deep boring.

NMED cannot approve the proposed background locations until Fort Bliss provides a detailed site map, but agrees that the proposed distance from SWMU 25 is appropriate. However, as discussed above, Fort Bliss must demonstrate that the proposed surface grab samples are acceptable background samples by analyzing for the same constituents as for the subsurface investigation soil samples.

Fort Bliss must revise Section 5.1 to specify that it will collect and analyze at least one sample of the tar material, that it will advance two soil borings through the tar material to

a depth of 10 feet bgs, that it will collect samples from 0' – 2', 5', and 10' bgs. Fort Bliss must analyze the samples taken from beneath the tar material for the same analytes as specified above. If Fort Bliss determines that the actual depth of the Tar Material Area pit is 9' to 12' bgs (see Comment 31), then the total depth should be deepened to 30 feet bgs.

31. Fort Bliss indicates in Section 5.1.2 (*Investigative Trench*) of Attachment B.1 that the Tar Material Area pit depth is assumed to be 9 to 12 feet for the purposes of determining soil sample depths for the two proposed soil borings. In its 1997 RFI Report, Fort Bliss reported the tar material to be approximately one inch in thickness. Fort Bliss must review its data and determine whether the tar material is likely to be 9 to 12 feet thick or only a few inches thick. If the tar material is 9 to 12 feet thick, then Fort Bliss should retain the Investigative Trench. However, if the tar material is only a few inches thick, then Fort Bliss should delete the Investigative Trench. Fort Bliss must propose how it will dispose of the tar material. As noted in Comment 20, onsite burial is not appropriate.
32. Fort Bliss must revise Attachment B.1 to include discussion on how it will incorporate the data from the 1997 investigation.
33. NMED recommends that Fort Bliss revise Attachment B.1 (Table 5 – 1) to be consistent with previous investigations (see the 1996 RFI Work Plan); specifically, drilling and soil sampling should be tied to SWMU 25, rather than the contractor that will conduct the field work.
34. Fort Bliss must revise Section 5.3 (*Equipment Decontamination Procedures*) of Attachment B.1 to specify how it will dispose the decontamination water; dumping it on the ground may not be appropriate. Fort Bliss may dispose the decontamination water by discharging it to the headworks at its Orogrande wastewater treatment lagoon.
35. Fort Bliss must revise Section 5.4 (*Survey Sample Locations*) of Attachment B.1 to specify the vertical as well as the horizontal accuracy.
36. NMED recommends that Fort Bliss revise Section 6.4.1 (*Sample Numbering System*) and Table 6–1 to specify that the soil borings and samples will reference SWMU 25 rather than the contractor.
37. Fort Bliss must revise Section 8.1 (*Soil Cuttings*) of Attachment B.1 by deleting the inappropriate reference to industrial-occupational RBSLs (*sic.*), as discussed above. Fort Bliss may dump the drummed soil cuttings on the ground if the analytical results demonstrate that there is no exceedence of NMED's residential soil screening levels (SSLs). Fort Bliss must revise Section 8.1 to specify how it will manage the cuttings if the analytical results demonstrate that hazardous constituents exceed NMED's SSLs. Fort

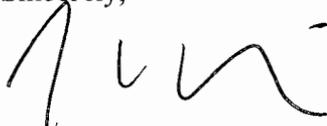
Bliss may dispose of contaminated soil cuttings that are not characteristically hazardous at a permitted solid waste landfill.

38. Fort Bliss must revise Section 8.2 (*Groundwater and Decontamination Water*) of Attachment B.1 to reflect that all comparisons will be to residential standards. If the analytical results indicate that the concentrations of hazardous constituents in the water do not exceed NMED's ground water protection standards, then Fort Bliss may dispose of the water by discharging it to the headworks at its Orogrande wastewater treatment lagoon. Fort Bliss must revise Section 8.2 to specify how it will dispose of contaminated water that exceeds a ground water protection standard. Fort Bliss may not dispose of decontamination water by discharging it the ground unless it can be demonstrated that the water does not contain hazardous constituents at concentrations that exceed a ground water protection standard.
39. Fort Bliss must revise Section 8.3 (*Personal Protective Equipment*) of Attachment B.1 to specify how it will dispose of Personal Protective Equipment (PPE). Section 8.3 indicates that "Disposal will then follow similar procedures as described for soil cuttings." Section 8.1 presently specifies that Fort Bliss will pour the soil cuttings on the ground. Fort Bliss may not dispose of PPE by dumping it on the ground.
40. As NMED discussed in its November 24, 2004 NOD to Fort Bliss, facilities must submit analytical data that is based on the method detection limits, not laboratory "reporting limits." Fort Bliss must revise Attachment B.2 by deleting the term "reporting limit." In its RFI Report, Fort Bliss must specify whether a constituent was detected; all detections must be reported, even if the laboratory cannot quantify the concentration at which the constituent has been detected.
41. Fort Bliss must revise Section 5.0 (*Analytical Procedures*) of Attachment B.2 to specify that Fort Bliss will analyze the surface soil samples for the same constituents as the subsurface samples.
42. NMED does not review and approve health and safety plans; therefore, NMED has no comments on Attachment C (Health & Safety Plan).

Keith Landreth
December 30, 2004
Page 9

If you have any questions concerning this letter, please call Glenn von Gonten at 505-428-2551.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Bearzi', written over a horizontal line.

James P. Bearzi
Chief
Hazardous Waste Bureau

JPB:gvg

cc: J. Kieling, NMED HWB
D. Cobrain, NMED HWB
G. von Gonten, NMED HWB
L. King, EPA Region 6 (6PD-N)
David Dodge, Fort Bliss

File: Reading File & FB 2004 File, FB 04-001