

October 24, 2001

Mr. David Dodge  
CDR, USADACENFB  
Attn: ATZC-DOE-M(B622) Dodge  
Fort Bliss, Texas 79916-6816

**RE: Response to NMED's Request for Supplemental Information  
No Further Action Petition For Six New Mexico Sites  
U.S. Army Air Defense Artillery Center and Fort Bliss  
EPA ID No. NM42137201010-01**

Dear Mr. Dodge:

Malcolm Pirnie and Roy F. Weston, Inc., have reviewed your comments dated September 6, 2001, and provide the following response. Each comment is enumerated consistent with NMED's September 6, 2001 letter followed by our response. A revised No Further Action Petition For Six new Mexico Sites is attached that reflects NMED's comments.

**SECTION 1.2.2 SWMU 21 and SWMU 22 (Page 1-2)**

**Comment 1: Please correct the typo that reads, "The site was used until 19833."**

✓ *Response 1: Acknowledged and corrected to read: "The site was used until 1983."*

**SECTION 1.2.3 AREA OF CONCERN - HUECO RANGE CAMP (Page 1-3)**

**Comment 2: Please correct the typo that reads "...instances of detentions..."**

✓ *Response 2: Acknowledged and corrected to read: "...instances of detections..."*

**Comment 3: Based on our review of Fort Bliss's submittals, it appears that Fort Bliss has apparently incorrectly calculated "background" concentrations for inorganics. Also, please note that the Superfund practice of screening contamination concentrations to "three times the background soil screening values" is not an acceptable method for screening data (see Page 1-3 and elsewhere in this petition). Please delete all reference to this practice in this petition.**

Because background values have been incorrectly calculated, Fort Bliss must recalculate background concentrations using the EPA guidance that we are appending to this RSI (see Attachment 2). Fort Bliss may also propose other valid statistical methods for NMED's consideration. When submitting your revised NFA petition, please ensure that each individual section that addresses or references background concentration has been appropriately reviewed and revised (for example see the discussion in Section 2.1 – Soil [Page 2-1] and Table 2-3).

✓ *Response 3: Acknowledged and the text has been revised from "...Screening and three times background soil screening values." To "...Soil Screening Levels." The three times background procedure was not used on the background data set for Hueco, and instead an Upper Confidence Limit (UCL) of the mean was calculated.*

*Regarding background values calculated for other SWMUs, such as the Doña Ana oxidation lagoon, the background data set is not sufficient to calculate a defensible UCL value. Reference to background values and background information have been removed from the NFA Petition for both Doña Ana and Meyer Range Camps. EPA and recently promulgated NMED Risk Based Soil Screening were used for comparison purposes.*

*Because the reference to the background calculations has been stricken from the text, Appendix E has also been stricken. Subsequent appendices letters have been revised to follow sequentially from "A" through "P". The text references to these appendices have also been revised accordingly. For efficiency, Volumes 2 and 3 do not need to be recopied and distributed as part of this Revision. Instead, new appendix fly-sheets have been provided as replacement pages to the existing Volumes 2 and 3. Please discard Appendix E entitled 95% UCL Calculations and replace the subsequent fly-sheet in each of the appendices E through Q.*

## **SECTION 2.1 SUMMARY (Page 2-1)**

**Comment 4: Fort Bliss indicates that some constituents have exceeded the Human Health Screening Levels (HHSLs) based on the soil to ground water transfer. NMED has determined that it is not necessary for Fort Bliss to consider this pathway because of the ground water in the Tularosa Basin is deeper than assumed by the model and because Fort Bliss has actual ground water monitoring data.**

✓ *Response 4: Acknowledged. The text has been revised accordingly.*

**Comment 5:** In Section 2.1 and elsewhere, Fort Bliss indicates that Total Petroleum Hydrocarbon (TPH) is not a constituent of concern because TPH is not regulated under RCRA. Although TPH not listed in Appendices VII and VIII to 40 CFR 264, NMED requires facilities with TPH contamination to remediate their releases in accordance with the New Mexico Oil Conservation Division's (OCD) "Guidelines for Remediation of Leaks, Spills and Releases." A copy of the HWB's Position Paper on this issue was provided to Fort Bliss on July 18, 2000. Fort Bliss should follow OCD's guidelines to determine whether TPH contamination in the soil and/or ground water exceeds OCD's specified "remediation action levels." Fort Bliss may be required to address TPH contamination in wastewater or the bottom sludges of the lagoons in the future under another program. For completeness, Fort Bliss should compare all TPH detections with the OCD guidance. Please review and address all known TPH contamination and document in the revised NFA petition that Fort Bliss is in compliance with the ODC guidance.

*Response 5: Acknowledged.*

*The Hazardous Waste Bureau (HWB) of the New Mexico Environment Department (NMED) developed the Use of Total Petroleum Hydrocarbon (TPH) Test Results for Site Characterization position paper. This paper states that TPH results represent a complex mixture of compounds, some of which are RCRA regulated constituents and some compounds that are not regulated under RCRA. The regulated community must first demonstrate that media of concern are not affected by SVOCs or VOCs as measured by SW846 8270 and SW846 8260, respectively. If the regulated community wants to use TPH as analytical method at remediation sites, it is required to compare TPH results to Oil Conservation Division (OCD) cleanup guidelines. The OCD has promulgated cleanup standards for soil. The only guidance that OCD provides regarding TPH concentrations for groundwater is that TPH must not exceed background concentrations. OCD also requires the regulated community to compare TPH concentrations in groundwater to New Mexico Water Quality Control Commission (WQCC) standards. The WQCC has not promulgated TPH standards for groundwater.*

*TPH was reported at Doña Ana in wastewater. Wastewater is not subject to surface water regulations.*

*The confirmation groundwater sample collected by Malcolm Pirnie at Doña Ana was not analyzed for TPH. The text and tables have been revised accordingly.*

*TPH was reported in the perched groundwater at Meyer Oxidation Lagoon. TPH concentrations ranged from 0.46 mg/L to 0.59 mg/L. Because background concentrations of TPH in groundwater have not been established for this site, the VOC and SVOC concentrations in groundwater were compared to regulatory standards. None of these RCRA regulated constituents exceeded the regulatory standards. Consequently, TPH is not a concern at this site.*

*The OCD TPH standard for soil is 5,000 mg/kg for those sites with a total ranking score of 0 - 9. Soil samples at the Doña Ana and Meyer oxidation lagoons were not analyzed for TPH. This OCD ranking is less than ten for both sites.*

**SECTION 2.1****Page 2-3 ECOLOGICAL RECEPTORS**

**Comment 6:** It appears that Fort Bliss may not have correctly calculated “Hazardous Quotients” (HQs) for ecological risk in Section 2.1 and elsewhere. Fort Bliss reports that the calculated HQs are greater than 1.0 for several constituents for the selected representative ecological receptors. Fort Bliss should review their HQ calculations to ensure that the mean concentration, rather than the maximum value was used (See comment 3 above – please refer to the attached statistical guidance that details appropriate methods for calculating the Upper Confidence Level [UCL] of the mean). If Fort Bliss used the maximum value (see Section 2.2.2.2 – Page 2-15), or an incorrectly calculated mean value, then the exposure concentration might be overly conservative, resulting in an HQ that exceeds 1.0. Also, Fort Bliss should only consider the surficial soil sample concentrations because there is no practical pathway between the ecological receptors and the deeper soil samples.

*Response 6:* HQs were recalculated using the mean concentration of the constituents in the surficial soil and sediment samples. The recalculated HQ values are all below one. The method utilized to calculate the HQ values and the

*calculations are attached. Please insert these as an addenda to Appendix H, Volume 3. ✓ Done*

**Comment 7:** Please delete the sentence and similar phrases that state "... values have been preliminarily accepted by NMED" in Section 2.1 and elsewhere. NMED can only provide the regulated community with formal approval in writing. If NMED staff made a statement during a meeting that Fort Bliss understood to mean that NMED would waive the requirement for Fort Bliss to meet all applicable protection standards for both human health and the environment, we apologize. However, Fort Bliss must meet all applicable protection standards before NMED will approve your NFA request. If Fort Bliss is unable to demonstrate that the amount of contamination detected at each site poses no risk to both human health and the environment, then NMED will disapprove the NFA request for that site and require Fort Bliss to implement appropriate remedial measures. However, as noted in Comment 6 above, Fort Bliss appears to have incorrectly calculated HQ by using overly conservative concentrations.

*✓ Response 7: Acknowledged and deleted from the text.*

#### **SECTION 2.4.2.2 SAMPLING DATA COLLECTION (Page 2-7)**

**Comment 8:** Please revise the EPA Methods listed in this section and elsewhere appropriately. Please note that the EPA methods for the inorganics are all SW-846 methods.

*✓ Response 8: Acknowledged. Text and tables have been modified.*

#### **SECTION 2.4.2.4 Surface Water Analytical Results (Page 2-10)**

**Comment 9:** Surface Water Analytical Results (Page 2-10). Please revise the title of this section (and other similarly entitled sections) because "surface water" is generally understood to include water found in naturally occurring streams and ponds – not standing water in a wastewater treatment lagoon (For example, see the section on "Surface Water Assessment Reports" – Page 2-17). "Surface water" protection standards do not apply to the oxidation ponds at Fort Bliss.

*✓ Response 9: Acknowledged. Text has been revised to reference only wastewater when discussing water flowing from the in-flow pipe and standing water within*

*the lagoon. Section 2 and Section 3 tables have also been revised to indicate wastewater as opposed to surface water. Results of the sampling events are presented. References to surface water standards have been eliminated from the tables and text.*

**SECTION 3.7.1      Rationale(Page 3-14)**

✓ **Comment 10: Fort Bliss indicates that HQ values were exceeded for Barium. Please note that high concentrations of naturally occurring barium have been documented in New Mexico and West Texas.**

*Response 10: Acknowledged.*

**SECTION 5.4.4.4      Results and Conclusions (Page 5-5)**

**Comment 11: Results and Conclusions (Page 5-5). Please correct the typo in the last sentence of the second paragraph (..DS-04 art a concentration...).**

✓ *Response 11: Acknowledged and corrected to read: .....DS-04 at a concentration....*

**SECTION 6.5.1      Nature and Extent of Contamination (Page 6-6)**

✓ **Comment 12: Nature and Extent of Contamination (Page 6-6). Please correct the typo in the first paragraph (Low concentrations or organic compounds...).**

✓ *Response 12: Acknowledged and corrected to read: Low concentrations of organic compounds...*

**Comment 13: Please discuss whether the deterioration of the steel well casing is a potential release mechanism to ground water.**

*Response 13: The possible deterioration of the steel well casing is not a potential release mechanism to the local groundwater. While it is believed that deterioration of the well materials is attributable to the metals that were reported in two of the groundwater samples, the presence of metals is believed to be localized in nature and an artifact of incomplete purging. Due to the depth of the old and inactive wells (in excess of 300-feet), only a small amount of water was removed prior to sampling. No indication of well failure was evident during the Hueco Range Camp RFI field*

*activities, and the presence water containing the metals is believed to be contained in the well casing.*

**SECTION 6.6.2.1 Human Health (Page 6-7)**

✓ **Comment 14: Please correct the typo in the second paragraph (The UCL values are listed in the summary tables a the end of ...).**

✓ *Response 14: Acknowledged and corrected to read: The UCL values are listed in the summary tables at the end of....*

**SECTION 6.6.3.1 Human Health (Page 6-8)**

✓ **Comment 15: This section references elevated metal concentrations above EPA screening levels that may originate from deteriorated well materials. Please discuss whether Fort Bliss plans to replace this well.**

✓ *Response 15: Fort Bliss does not plan to replace the two inactive wells in question, an may in fact abandon the wells in the future to prevent tampering.*

We appreciate working with NMED. If you have any questions please feel free to contact Steve Petersen with Malcolm Pirnie at 713-960-7431, or Greg Braddy with Roy F. Weston at 808-585-0448.

Sincerely,  
Malcolm Pirnie, Inc.

*F. Steve Petersen, P.G.*  
F. Steve Petersen, P.G.  
Senior Hydrogeologist

Attachments

cc: Greg Braddy, Roy F. Weston