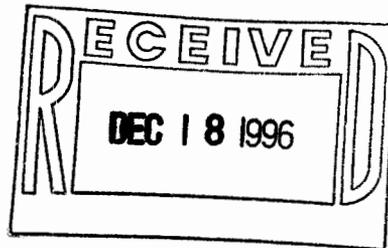




UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

DEC 16 1996



Mr. Benito Garcia, Chief  
Hazardous and Radioactive Materials Bureau  
New Mexico Environment Department  
2044A Galisteo Street  
Santa Fe, NM 87505

Dear Mr. Garcia:

The Environmental Protection Agency (EPA) has reviewed the final draft Appendix IV Stage 2D-2 RCRA Facility Investigation (RFI) Report submitted by Kirtland Air Force Base (Kirtland) on July 8, 1996. Attached for your review and consideration are EPA's comments concerning the draft RFI Report.

If you have any questions, please contact Ms. Nancy Morlock of my staff at (214) 665-6650.

Sincerely yours,

  
David W. Neleigh, Chief  
New Mexico-Federal Facilities

cc: Mr. Steve Pullen  
New Mexico Environment Department

KAFB1820



**EPA Comments**  
**Appendix IV (Stage 2D-2) Final Draft RFI Report**  
**Kirtland Air Force Base**

**GENERAL COMMENTS**

1. The certification page has not been signed. Kirtland should submit a signed copy of the certification statement.
2. Kirtland did not include a description of the visual condition of the tanks upon removal. The EPA recommends that a short description of the tanks (upon removal) be included in the RFI Report.

**SITE-SPECIFIC COMMENTS**

3. Executive Summary, Page ES-1, Fifth Bullet  
The statement that metals concentrations were above background levels seems to contradict the statement that the concentrations appear to be naturally occurring. Kirtland should clarify these statements.
4. Sections 1.2.2 and 1.2.3, History and Current Activities, Page 1-3 to 1-7  
Kirtland should provide information on the history and current activities for the specific sites that are the focus of this report. For example, Kirtland should state when the tanks were put into operation, when they were closed, and what maintenance was done on them.
5. Figure 2-7, Generalized Water Table Elevations, Page 2-17  
The location of the data points used to construct this map should be included on the map.
6. Section 3.1.1.1, Geoprobe Sampling, Page 3-1  
Please note that the geoprobe was an unsuccessful sampling tool at this site; it generally failed to provide samples from depths greater than two feet. This may be due to large rock fragments in the soil horizons. As a result, these samples provide little useful information. Also, bedrock could not generally have prevented sampling deeper than 10 feet (as stated) since bedrock beneath the tanks ranged in depth from 10 feet to 23 feet.
7. Section 3.1.1.4, Borehole Abandonment, Page 3-4  
Kirtland should explain how the pellets were allowed to hydrate in the arid soil. How could the borehole be completed to surface with cement if the borehole is already filled with bentonite pellets to only one inch below the surface and the bentonite has swelled from hydration?

8. **Section 3.1.4.2, Wastewater, Page 3-6**  
This section states that wastewater generated during field sampling will be analyzed based on the parameters required by the City of Albuquerque's Sewer Use and Wastewater Control Ordinance, and that nonhazardous drum contents will be disposed of through the City's POTW via the base sewer system. It does not appear that any screening will be done on the wastewater based on the results of field sampling. When an analyte is detected in a field sample, it may be appropriate to sample the wastewater associated with that sample for the same analyte. This screening should be done to prevent the inappropriate discharge of wastewater to the POTW that could otherwise meet the city's parameters.
9. **Section 3.5.2.2, Metal Contaminants, Page 3-15**  
It is unacceptable to use two times the UTL as a decision criteria. Any metal concentration above the UTL should be considered a potential indicator of a release. Further, calculation of the UTL from an adequate background sample dataset should account for 95% of the nonhomogeneities of the soil. Anomalous occurrences should not be discounted as natural soil variances without further justification.
10. **Section 4, Results Summary**  
The field screening results summary (OVA and radiation) should be included in this section.
11. **Table 4-2, Summary of Appendix IV Stage 2D-2 RFI Background Concentrations for Metals in Soil, Page 4-4**  
There is a typographical error in the chart heading - "Meal" instead of "Metal".  
Source: Webster's Dictionary
12. **Section 4.3, Analysis of Radiological Data, Page 4-6**
  - A. There is an apparent typographical error in the middle paragraph. It should read "RW-17" instead of "RW-06".
  - B. The tritium value from sample RW-17 should not have been left out of the risk calculations. The RESRAD analysis calculates the risk of cumulative effects of radioactive isotopes, and this tritium value contributes a significant portion of allowable risk. Further, a separate set of analyses should have been run that included total radioisotope risk (i.e., including background) because the incremental risk from a release may cause total risk to exceed allowable levels.
13. **Sections 5.2, 7.2, 8.2, and 9.2**  
Standing water in a tank does not necessarily mean that the tank is fit. It could indicate that the leak is simply higher than the water level; that the inflow is greater than

the leakage rate; or that the tank is below the water table. The fact that the two large tank systems were full of water suggests that there was either activity at these inactive tanks or that there was groundwater seepage into the system. This also suggests that the systems were not maintained, since they were backed up. What information is available concerning the condition of the tanks upon removal?

14. **Section 7.1, Site Description and History, Page 7-1**  
Kirtland should include text stating that the tritium content of the water in the tank indicates that the tank received radiological waste. Similarly, Kirtland should add text to Section 5.1 due to the gross alpha content in tank RW-04.