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**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

December 12, 1995

Christopher B. DeWitt, R.P.G
Chief
Environmental Management Division
377 ABW/EMR
2000 Wyoming Blvd SE
Albuquerque, New Mexico 87117

**SUBJECT: Technical Evaluation of Groundwater Monitoring Data:
Kirtland Air Force Base, Sewage Lagoons and Golf Course
Main Pond**

Dear Mr. DeWitt:

The Hazardous and Radioactive Materials Bureau (**HRMB**) of the New Mexico Environment Department (**NMED**) has reviewed the sludge data and five (5) quarters of groundwater monitoring data for chromium (**Cr**) provided by Kirtland Air Force Base (**KAFB**) in the September 14, 1995 Sewage Lagoon and Golf Course Main Pond Post-Closure Monitoring First Annual Report. These data have been provided by KAFB to satisfy requirements of the "Phase I Sampling and Analysis Plan" of the April 1, 1994 Post-Closure Plan, Sewage Lagoons and Golf Course Main Pond. The purpose of this review is to determine the necessity of continued sampling and analysis for chromium (**Cr**) at the Sewage Lagoons (**SL**) and Golf Course Main Pond (**GCMP**).

Technical comments and concerns of the HRMB are as follows:

GENERAL COMMENTS:

1. **HRMB** has evaluated Cr data (Table 1) from the sludge at the SL and concludes that the levels of Cr in the sludge pose minimal risk to human health and that the sludge is not contributing significant Cr contamination to either the vadose zone or groundwater.

KAFB1705



SPECIFIC COMMENTS:

1. Page 6, **Discussion and Statistical Analysis**, Paragraph 5:
"The box plots for the sewage lagoon monitor well data suggest that total Cr is within the New Mexico Water Quality Control Commission (NMWQCC) standard in all wells except KAFB0503."

NMED agrees that the "box plots" in Figure 9 suggest statistically that total Cr in groundwater may be within standards for particular wells at the SL. Nevertheless, the data (Table 5) indicate exceedances of the NMWQCC Cr standard (0.05 mg/L) and the U.S. EPA Drinking Water Maximum Contaminant Level (MCL) for Cr (0.10mg/L) in Monitoring Well (MW) 0502 during the 7/94 and 2/95 sampling events, and in MWs 0503 and 0504 during the 2/95 sampling event. These exceedances at the SL may be significant. Additional groundwater monitoring is required to determine whether groundwater has been impacted at the SL.

2. Page 6, **Discussion and Statistical Analysis**, Paragraph 6:
"The box plots for the golf course main pond monitor well data suggest that total Cr is below the NMWQCC standard in all wells."

Again, NMED agrees that the "box plots" in Figure 9 suggest statistically that total Cr in groundwater may be within standards for particular wells at the GCMP. Nevertheless, the Cr data (Table 5) indicate an exceedance of both the NMWQCC standard and the U.S. EPA MCL in MW 0608 during the 2/95 sampling event. This exceedance at the GCMP may be significant. Additional groundwater monitoring is required to determine whether groundwater has been impacted at the GCMP.

3. Page 6, **Recommendations**, Paragraph 1: "The data...at the golf course main pond indicate...that Cr does not exceed the NMWQCC standard for groundwater at this location. Therefore, this closure location should be eligible for clean closure."

NMED disagrees with KAFB's recommendation based upon the exceedance discussed in Item 2 above. NMED, in keeping with the intent of the Post-Closure Plan, requires, at a minimum, two (2) additional quarterly sampling events at the GCMP to make a technical determination regarding applicability of clean closure.

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4. Page 6, **Recommendations**, Paragraph 1: "At least two additional rounds of groundwater monitoring should be completed at the sewage lagoon monitor wells...[before the SL may be considered technically] eligible for clean closure."

NMED agrees with KAFB's recommendation. Again, in keeping with the intent of the Post-Closure Plan, NMED requires, at a minimum, two (2) additional quarterly sampling events at the SL to make a technical determination regarding applicability of clean closure.

Based upon the above findings, NMED hereby requires KAFB to conduct two additional quarterly ground water sampling and analyses, beginning January 2, 1996. The analytical results should be submitted to HRMB within 30 calendar days of laboratory data acquisition. NMED will use the two quarterly sampling analytical results to determine whether ground water has been impacted at the Sewage Lagoon and the Golf Course Main Pond.

If you have any questions on this matter, please call Dr. Ron Kern or Cornelius Amindyas at (505) 827-1561.

Sincerely,


Barbara Hoditschek, Manager
RCRA Permits Program
Hazardous and radioactive Materials Bureau

cc: Benito Garcia, Chief, HRMB
Ron Kern, Manager, Technical Compliance Program
Cornelius Amindyas, HRMB
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