



BILL RICHARDSON
Governor

DIANE DENISH
Lieutenant Governor

ENTERED

NEW MEXICO
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

2905 Rodeo Park Drive East, Building 1

Santa Fe, New Mexico 87505-6303

Phone (505) 476-6000 Fax (505) 476-6030

www.nmenv.state.nm.us



RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT

October 20, 2008

Mr. Wayne Bitner, Chief, Restoration Section
377 MSG/CEANR
2050 Wyoming Blvd., Suite 118
Kirtland AFB, NM 87117-5270

**RE: NOTICE OF DEFICIENCY: RESOURCE CONSERVATION AND RECOVERY
ACT FACILITY INVESTIGATION WORK PLAN FOR SOLID WASTE
MANAGEMENT UNITS WP-026, SEWAGE LAGOONS AND GOLF COURSE
MAIN POND, APRIL 2008
KIRTLAND AIR FORCE BASE, EPA ID# NM9570024423
KAFB-08-015**

Dear Mr. Bitner:

The New Mexico Environment Department (NMED) reviewed the *Resource Conservation and Recovery Act Facility Investigation (RFI) Work Plan for Solid Waste Management Units WP-026, Sewage Lagoons and Golf Course Main Pond* (Work Plan) dated April 18, 2008. NMED is issuing this Notice of Deficiency to KAFB for purposes of clarifying the Work Plan and setting requirements for the subsequent RFI Report that will follow.

GENERAL COMMENTS

Several deficiencies in clarity and information supplied in support of the subject RFI Work Plan were noted by NMED personnel. Rather than have KAFB submit a separate response to the Comments below, KAFB may instead address the Comments in the RFI Report that will follow completion of the subject RFI Work Plan. Again, NMED cautions that any data (e.g., sampling analysis results, borehole data) or information (e.g., potentiometric surface maps) quoted in a

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document that is used to support investigative conclusions or corrective action decisions must be supplied with the document.

Comment 1. 2.2.2.2 Fate and Transport

No potentiometric-surface maps or groundwater gradients are supplied with the subject RFI Work Plan. Review of the perched aquifer potentiometric-surface map in the *2006 Resource Conservation and Recovery Act Facility Investigation Comprehensive Report for Solid Waste Management Units WP-026, Sewage Lagoons and Golf Course Main Pond (August 2007)* shows a northeast gradient. However, the *Long-Term Groundwater Monitoring Summary and Baseline Determination Report (LTMR -- FY 2005)* perched aquifer potentiometric-surface map shows a north-by-northeast gradient. Furthermore, the LTMR potentiometric-surface map includes regional and perched groundwater elevation data in construction of its perched aquifer potentiometric-surface map. KAFB shall submit to NMED an accurate, up-to-date potentiometric-surface map with the forthcoming RFI Report.

Comment 2. Additional Investigation

There are no regional groundwater monitoring wells down gradient of WP-026. In the forthcoming RFI Report, KAFB shall submit to NMED a work plan for installing a sufficient number of regional monitoring wells around WP-026 to ensure that the regional groundwater is properly characterized.

Comment 3. The following information is missing in the subject RFI Work Plan; this information shall be included in the RFI Report that will follow implementation of the RFI Work Plan.

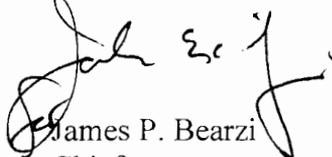
- Aquifer data:
 - Potentiometric surface maps of the perched and regional aquifers; no potentiometric-surface maps or groundwater gradients are supplied with the subject RFI Work Plan. Review of the perched aquifer potentiometric-surface map in the *2006 Resource Conservation and Recovery Act Facility Investigation Comprehensive Report for Solid Waste Management Units WP-026, Sewage Lagoons and Golf Course Main Pond (August 2007)* shows a northeast gradient. However, the *Long-Term Groundwater Monitoring Summary and Baseline Determination Report (LTMR -- FY 2005)* perched aquifer potentiometric-surface map shows a north-by-northeast gradient. Furthermore, the LTMR potentiometric-surface map includes regional and perched groundwater elevation data in construction of its perched aquifer potentiometric-surface map. these maps shall generally agree with the potentiometric surface maps generated in the course of other KAFB investigations.
 - Hydrographs for all monitoring wells used for the report.
 - Data from any aquifer tests conducted by KAFB or data from tests conducted by others that are used by KAFB.
- New monitoring wells and soil-vapor monitoring wells:

- Horizontal and vertical location of the well as determined by a licensed surveyor and at an accuracy within normal industry standards. If the location of a particular well was not determined by a licensed surveyor, indicate the method used to determine the well location.
- Vertical location of measuring point (normally top of casing – mark the actual measuring point) and stickup at an accuracy within normal industry standards.
- Elevation of top and bottom of well screen.
- Annotation of whether the well is a perched, merging, or regional aquifer well;
- Types of geophysical logging conducted (gamma, neutron, resistivity, etc.).
- Predominant geophysical logging condition (mudded hole, through steel drive casing, through installed well, etc.).
- Predominant drilling method (mud rotary, air rotary casing hammer, etc.).
- Material type for screen and riser (PVC, steel, etc.).
- All historic water level measurements (dates, depth to water below measuring point, groundwater elevation) including initial water levels. This information can be submitted in a separate electronic file from the Well Summary Report.
- Historic ground water quality data with special emphasis on water quality data for nitrate, chloride, specific conductance, total dissolved solids, and contaminants (contaminants are herein defined in this case as constituents detected above background levels). This information can be submitted in a separate electronic file from the Well Summary Report.
- Monitoring well construction diagrams, geologic logs, and completion and development data.
- All monitoring wells:
 - Screen depths/elevations shall be supplied with data spread sheets.
 - Annotation of whether the well is abandoned (and date of abandonment) or active.
 - KAFB shall supply a summary of groundwater data collected for existing and new monitoring wells whether or not KAFB considers the wells to be contaminated.
- Corrective Measures
 - Existing groundwater contamination
 - KAFB shall propose corrective actions designed to mitigate the source for the TCE plume in groundwater.
 - KAFB shall propose corrective actions to mitigate solvent contamination in groundwater.
 - Potential groundwater contamination

NMED notes that several solvents other than TCE exist in the soil-vapor plume and are contaminating groundwater. KAFB shall calculate the potential threat to groundwater (both perched and regional) of the various solvent soil-vapor plumes based on their partitioning coefficients.

The Permittees shall respond to this NOD within 90 days of receipt of this letter. If you have any questions regarding this matter, please contact William McDonald of my staff at (505) 222-9582.

Sincerely,

A handwritten signature in black ink, appearing to read "James P. Bearzi". The signature is fluid and cursive, with a large initial "J" and "B".

James P. Bearzi
Chief

Hazardous Waste Bureau

cc: W. Moats, NMED, HWB
W. McDonald, NMED, HWB
L. King, EPA-Region 6 (6PD-N)
File: Reading and KAFB 2008
KAFB-08-015