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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

October 27, 2009

Mr. Ronald A. Lancaster
27 SOCES/CEA
506 N DL Ingram Blvd
Cannon Air Force Base, New Mexico 88103-5003

**RE: REVIEW OF INITIAL BASELINE GROUNDWATER MONITORING
MELROSE AIR FORCE RANGE, NEW MEXICO, JUNE 2009
EPA ID NO. NM7572124454
HWB-MELR-09-001**

Dear Mr. Lancaster:

The New Mexico Environment Department (NMED) has received the U.S. Department of the Air Force, Cannon Air Force Base's (Permittee) *Initial Baseline Groundwater Monitoring, June 2009* (Report). In addition to reviewing the Report, NMED reviewed historical ground water quality and analytical data from monitoring wells at Melrose Air Force Range (MAFR) and reviewed [*Air Force Special Operations Command*] *AFSOC Assets Beddown at Cannon Air Force Base, July 2007*.

NMED's comments are provided, below, as requirements for future reports on ground water monitoring at MAFR.

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Comment 1. Section 1.4, Site Descriptions and History, Pages 1-11 through 1-13:

Subsections 1.4.4 through 1.4.7 describe Areas of Concern (AOCs) 1, 2, 3 and 4, respectively. These units should no longer be identified as AOCs. The Permittee is referred to NMED's Annual Unit Audit dated June 30, 2005. In Table B attached to Invoice # HWB-MELR-AUA-2004 the former AOCs are identified as Corrective Action Units 130, 131, 132, and 133, respectively. The Permittee must identify these sites as Solid Waste Management Unit (SWMU) 130, 131, 132 and 133, respectively, in future documents and publications. The Permittee may add the qualifier 'former AOC-n' if it is necessary to avoid confusion.

Comment 2. Section 2.7, Investigation-Derived Waste Disposal Procedures, Page 2-6:

Sampling occurred in January 2009 and the Report is dated June 2009. The Report indicated that all investigation derived waste is "currently" staged at an authorized IDW storage area. The Permittee must ensure that the 90-day limit for storing hazardous waste is not exceeded.

Comment 3. Tables 4-2, 4-4, 4-6, 4-8, and 4-10 Comparisons of Groundwater Quality Well Network Monitoring Well Maximum Groundwater Concentrations to Groundwater Screening Levels:

Where groundwater screening levels are not available in Water Quality Control Commission (WQCC) 20.6.2.3103 NMAC, the Permittee has listed screening levels for tapwater published in the US Environmental Protection Agency *Regional Screening Levels for Chemical Contaminants at Superfund Sites* (RSLs). The WQCC groundwater standards, including alternative abatement standards (20.6.2.7.WW and 20.6.2.3103 NMAC) and the drinking water maximum contaminant levels (MCLs) adopted by EPA under the federal Safe Drinking Water Act (42 U.S.C. §§ 300f to 300j-26), are cleanup levels for groundwater. If both a WQCC standard and an MCL have been established for an individual substance, then the lower of the two levels must be considered the cleanup level for that substance. If no WQCC groundwater standard or MCL has been established for a substance, a screening level for tapwater published in the NMED *Technical Background Document for Development of Soil Screening Levels, Revision 5.0* (NMED SSLs) is the appropriate value. A RSL value is appropriate when no WQCC or MCL or NMED SSL value is available. For carcinogens, the Permittee must multiply RSL values by a factor of 10 to obtain a screening value based on an excess cancer risk of 10^{-5} .

Comment 4. Section 6.2, Groundwater Monitoring Program, Page 6-1:

The Permittee proposed an analytical suite for the ground water samples to be collected annually. NMED concurs with the proposed suite with the following directions. The Permittee must analyze both total and dissolved RCRA metals and replace Method 6010B with the updated 6010C for metals analyses. The Permittee must include total and dissolved target analyte list (TAL) metals (aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, nickel, potassium, selenium, silver, sodium, thallium, vanadium zinc and cyanide) in the year 2010 and every sixth year thereafter; 2016, 2022 and so on. NMED considers perchlorate, nitrate, and nitrite to be potential contaminants of concern. The Permittee must add perchlorate by EPA Method 6850 or 6860 and nitrate plus nitrite by EPA Method 9056 to the analytical suite for the samples to be collected annually.

Comment 5. Section 6.2.2, Monitoring Well Abandonment and Well Installations, Page 6-2:

NMED approves of abandoning the wells recommended in the Baseline Report; M117MW001, M117MW002, M117MW003, M117MW004, MA02MW001S and MA03MW01. In addition, NMED recommends that MWQ 9 be plugged and abandoned because there is no historical water quality or analytical data and it is near the center of targets proposed in *AFSOC Assets Beddown at Cannon Air Force Base, July 2007*. Any other wells that are not being used beneficially or are not part of the Groundwater Quality Well Network should also be plugged and abandoned to prevent them from potentially serving as conduits of contaminants to ground water. Wells must be plugged and abandoned according to *Rules and Regulations Governing Well Driller Licensing; Construction, Repair and Plugging of Wells* 19.27.4 NMAC. The Permittee must provide a copy of the plugging record to NMED within one year of completion.

NMED also approves of installing a background monitoring well up gradient to and screened at the same elevation as existing monitoring wells located in the vicinity of the SWMUs. The Permittee must include TAL metals in the analytical suite of ground water sampled from any newly installed monitoring well in the first year of monitoring (see Comment 4).

Comment 6. Section 6.3, Groundwater Quality Well Network, Page 6-3:

The Permittee proposed an analytical suite for the ground water samples to be collected annually. NMED concurs with the proposed suite with the following directions. The Permittee must analyze both total and dissolved RCRA metals and replace Method 6010B with the updated 6010C for metals analyses. The Permittee must include total and dissolved target analyte list TAL metals in the year 2010 and every sixth year thereafter; 2016, 2022 and so on. The Permittee must add perchlorate by EPA Method 6850 or 6860 and nitrate plus nitrite by EPA Method 9056 to the analytical suite for the samples to be collected annually.

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The Permittee must include sampling of the monitoring well MWQ-19. MWQ 19 (depth 203 feet) is co-located with MWQ 18 (depth 148 feet) and is in the same vicinity as MWQ 20 (depth 300 feet).

Comment 7. Section 6.3, Groundwater Quality Well Network, Page 6-3:

The Permittee recommended the following wells to be in the Groundwater Quality Well Network: MWL-6, MWQ-2, MWQ-3, MWQ-4, MWQ-5, MWQ-6, MWQ-7, MWQ-8, MWQ-10, MWQ-14, MWQ-18, MWQ-20, MWQ-21, MWQ-22.

Table 3-1 indicates that the Permittee was not able to determine the depth of MWQ-4. Sampling and analysis of ground water from MWQ-4 should be discontinued if the depth of the well can not be determined.

NMED discourages including stock wells with steel casings in the Groundwater Quality Well Network, e.g., MWL-6, MWQ-4, MWQ-5, MWQ-6, MWQ-7, and MWQ-8, with the exception of MWQ-10. Although MWQ-10 has a steel casing, it is currently the only productive well located up-gradient of the impact area.

The Permittee must install a replacement monitoring well up-gradient of the impact area, then discontinue sampling and analysis of MWQ-10. The Permittee must include both total and dissolved TAL metals in the analytical suite of ground water sampled from the new monitoring well in the first year of monitoring (see Comment 6).

If you have any questions regarding this letter, please call Pat Stewart at (505) 476-6059.

Sincerely,



John E. Kieling
Program Manager
Permits Management Program
Hazardous Waste Bureau

cc: P. Stewart, NMED HWB
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MELR-09-001