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Governor

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NEW MEXICO
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

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DAVE MARTIN
Secretary

RAJ SOLOMON, P.E.
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 21, 2011

Colonel Robert L. Maness
Base Commander
377 ABW/CC
2000 Wyoming Blvd. SE
Kirtland AFB, NM 87117-5606

Mr. John Pike
Director, Environmental Management Section
377 MSG/CEANR
2050 Wyoming Blvd., Suite 116
Kirtland AFB, NM 87117-5270

**RE: DIRECTION TO ACQUIRE HYDRAULIC INFORMATION
BULK FUELS FACILITY SPILL (SWMUS ST-106 AND SS-111)
KIRTLAND AIR FORCE BASE
EPA ID# NM9570024423**

Dear Col. Maness and Mr. Pike:

On December 1, 2010, the U.S. Air Force (the Permittee) submitted a plan to contain light nonaqueous phase liquid (LNAPL) at Solid Waste Management Units (SWMUs) ST-106 and SS-111, Kirtland Air Force Base (KAFB) Bulk Fuels Facility Spill. While the plan is conceptual in nature, it calls for extraction wells designed to create a capture zone for the LNAPL and an infiltration well to disposition the extracted and treated water. To refine the plan, and collect data crucial for development and design of final remedies for groundwater contamination, key aspects of the geologic and hydrologic conditions of the groundwater need to be determined. The need for this information was previously communicated to the Permittee in correspondence dated August 6 and April 2, 2010.

The ongoing drilling for the Bulk Fuels Facility Spill project provides an excellent opportunity to obtain this information and assess the horizontal and vertical variability of several important hydraulic parameters through the sampling of aquifer materials, likely at a reduced overall cost for the project. Thus, pursuant to Part 6.5.17.1 of the Permittee's Hazardous Waste Facility Permit, the Permittee must collect undisturbed, representative samples of the saturated zone encountered at the location of each well screen for each groundwater monitoring well listed under NMED's letter of August 6, 2010, for which drilling begins on or after **February 25, 2011**. The samples must be analyzed in the

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laboratory for grain-size distribution, saturated hydraulic conductivity (vertical and horizontal by the constant or falling head methods, as appropriate), porosity, and specific yield. Samples must also be collected from the saturated zone encountered at the location of each well screen for the wells screened across the water table at locations # 14, 16, and 22 of NMED's letter of August 6, 2010, and analyzed in the laboratory for compressibility. All samples must be described for their geologic characteristics (mineralogy and texture) and assigned the appropriate classification under the Unified Soil Classification System. The field data and results of the sampling and laboratory analysis must be submitted in a report to the NMED by **August 1, 2011**.

NMED invites the Permittee to meet to discuss this direction in more detail, and to consider additional or alternative parameters that might be useful in future corrective actions at the Bulk Fuels Facility Spill project. NMED will provide its comments on the LNAPL containment plan under separate cover.

Please contact William Moats at (505) 222-9551 of my staff to arrange the aforementioned meeting, or if you or your staff have any questions.

Sincerely,



James P. Bearzi
Chief
Hazardous Waste Bureau

cc: R. Solomon, Acting Director, NMED WWMD
J. Kieling, NMED HWB
W. Moats, NMED HWB
W. McDonald, NMED HWB
S. Brandwein, NMED HWB
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L. King, EPA-Region 6 (6PD-N)
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