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ENVIRONMENT DEPARTMENT

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RON CURRY  
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Deputy Secretary

October 28, 2009

Colonel Michael S. Duvall  
377 ABW/CC  
2000 Wyoming Blvd. SE  
Kirtland AFB  
Albuquerque, New Mexico 87117-5606

**Re: Requirement for an Interim LNAPL Hydrocarbon Recovery Work Plan**

Dear Colonel Duvall:

The New Mexico Environment Department (NMED) has determined, based on information generated by Kirtland Air Force Base (KAFB) during its investigations, that the scale and observed impact of the Light Non-Aqueous Phase Liquid (LNAPL) hydrocarbon contamination of ground water associated with the SS-111 Bulk Fuels Facility constituting the majority of the KAFB ST-106 LNAPL plume has been largely defined. This plume of LNAPL hydrocarbons has been found to have contaminated ground water over a substantial area that is the source of drinking water supplies for the City of Albuquerque and is also located in the vicinity of several public water supply wells. The volume of LNAPL hydrocarbons on ground water, which has been estimated by KAFB to be in the millions of gallons, will take a substantial period of time to remediate. Currently, the majority of the LNAPL hydrocarbon plume is located off of KAFB property and is not being actively remediated.

Based upon these considerations, NMED requires that KAFB submit an interim LNAPL hydrocarbon removal work plan to address off-base LNAPL removal including a schedule to implement the work plan as soon as possible. This work plan should be submitted to NMED no later than November 30, 2009 concurrent with KAFB's semi-annual monitoring report. The work plan could include the relocation and operation of interim ICE SVE unit(s) to an off-base location, as recently proposed by KAFB. However, it must also include the installation of a sufficient number of LNAPL extraction wells for plume verification and extraction in all off-base areas affected by LNAPL.

NMED would like to point out that your letter, dated July 30, 2009, in response to the Notice of Deficiency (NOD) issued by NMED on June 23, 2009, referencing the "Modified Stage 2 Abatement Plan Schedule of Activities for Kirtland SS-111 Bulk Fuel Facility", fails to address the deficiencies noted in the NOD. Therefore, NMED reiterates that we expect that off-base

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remediation activities, both LNAPL recovery and dissolved-phase ground water remedial action, will be undertaken at the soonest practicable juncture. The schedule presented in the modified abatement plan does not reasonably accomplish this goal and KAFB's response remains deficient in its nonspecific references to "realistic time frames" and KAFB prescribed schedules for funding requests and receipt of funding. KAFB's response also proposes that the same schedule (still without specific dates) be pursued with reference to both full-scale remediation of dissolved-phase contamination, as well as LANPL removal from ground water. NMED considers this an unnecessary linkage between the unfolding investigation of dissolved phase contamination that will take place over a longer period of time, and the goals of protecting City of Albuquerque water supplies by implementing LNAPL remediation immediately to reduce the mass of LNAPL hydrocarbons on ground water that can contribute to the spread of dissolved phase water contaminants.

The NMED's June 23, 2009 Notice of Deficiency also indicated that we cannot approve a three-year time horizon for implementation of a Stage II Abatement Plan for dissolved phase contamination at SS-111. In response, KAFB proposed to submit the results of its dissolved phase investigation as part of its semi-annual monitoring report on November 30, 2009 and to submit the dissolved Phase Abatement Plan within 120 days from NMED review and approval of that report. NMED looks forward to receiving this information on November 30, 2009 and the future submittal of an overall Stage II Abatement Plan for the complete remediation of all contaminated ground water. Please be advised that the WQCC Regulations require that all Stage I and II Abatement Plan activities include the submittal of quarterly monitoring reports and KAFB will be expected to meet this requirement in the future.

NMED thanks you for your on-going cooperation in this matter. If you have any questions about this letter, please contact Alex Puglisi, Program Manager at (505) 827-2754 or Baird Swanson, Project Manager at (505) 222-9520.

Sincerely,



William C. Olson, Chief  
NMED Ground Water Quality Bureau

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