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Cabinet Secretary - Designate

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Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

December 12, 2016

Colonel Eric. H. Froelich
Base Commander
377 ABW/CC
2000 Wyoming Blvd SE
Kirtland AFB, NM 87117-5606

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

**RE: ETHYLENE DIBROMIDE IN SITU BIOREMEDIATION PILOT TEST WORK PLAN, BULK FUELS FACILITY
SOLID WASTE MANAGEMENT UNIT ST-106/SS-111
KIRTLAND AIR FORCE BASE
EPA ID# NM9570024423, HWB-KAFB-13-MISC**

Dear Colonel Froelich and Mr. Pike:

The New Mexico Environment Department (NMED) received the Kirtland Air Force Base (KAFB) (the Permittee) *Ethylene Dibromide In-Situ Bioremediation Pilot Test Work Plan*, dated November 8, 2016. The work plan addresses activities to be performed at the Bulk Fuels Facility (BFF) site to evaluate the extent to which potential treatment amendments enhance anaerobic ethylene dibromide (EDB) biodegradation processes. This work plan includes the following activities:

- Installation of extraction and injection wells;
- Installation of two new, nested groundwater monitoring wells;
- Trenching and installation of pipeline;
- Four pilot test recirculation phases;
- System performance monitoring; and
- Groundwater monitoring.

The work plan tasks are hereby approved with the following conditions:

1. Section 3.4.4, Bullet 2 states that “non-hazardous liquid [investigation derived waste (IDW)] will be disposed of at the [Groundwater Treatment System] if it meets the criteria specified in the document pertaining to the operation of that system.” The extraction, injection, and nested groundwater monitoring wells are being installed within the source area of the BFF leak and therefore associated IDW is specifically excluded from treatment and discharge via the GWTS for injection.
2. Appendix A contains a drawing titled *Recirculation and Amendment System Piping and Instrumentation Diagram* that requires a full legend and indicates a rate of 30 gallons per minute (gpm) instead of the 24 gpm in the text of the work plan. The Permittee must revise either the text in the work plan or the drawing in Appendix A so they are consistent.
3. The diagram titled *Recirculation and Amendment System Extraction and Injection Conceptual Vault Design and Wellhead* in Appendix A does not indicate if the flange depicted is high density polyethylene (HDPE) or a stainless steel transition coupling. The Permittee shall clarify the flange material to be used in the revised engineering drawings up to 2 weeks prior to the start of construction.
4. The Permittee shall submit final engineering design drawings up to 2 weeks prior to the start of construction. NMED recognizes that there may be variations from the final design based on conditions encountered during construction of the pilot test system.
5. NMED requires that the Permittee provide a PDF copy of the lithologic logs on a daily basis.
6. The proposed extraction, injection, and nested groundwater monitoring well designs are approved with the understanding that adjustments may be necessary based on changed conditions in the field. NMED requires an email notification of any deviations from the submitted well design which includes the proposed well design/screen interval for NMED approval a minimum of 24 hours prior to the start of well construction. The proposed well design can be submitted via email in PDF format. NMED requests the proposed well design be sent no sooner than 24 hours ahead of start of well construction.
7. NMED requires that the Permittee provide the volume and molarity of solutions used to adjust the pH during the pilot test. This information can be provided via email and shall be provided within 24-hours of when it is determined that pH adjustment is necessary.

The Permittee shall revise the work plan accordingly and submit within 30 days of receipt of this letter.

Sincerely,



Kathryn Roberts
Director
Resource Protection Division

Col. Froelich and Mr. Pike

December 12, 2016

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cc: Col. M. Harner, KAFB
K. Lynnes, KAFB
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File: KAFB 2016 Bulk Fuels Facility Spill