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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

September 22, 2015

Ms. DeAnna Rothhaupt
Chief, Holloman AFB Environmental
49 CES/CEIE
550 Tabosa Avenue
Holloman AFB, NM 88330-8261

RE: DISAPPROVAL
FINAL REMEDIAL INVESTIGATION WORK PLAN FOR XU853 MISSLE TEST STAND AREA MRS AND XU854 ABLE 51 AREA MRS, DECEMBER 2014
HOLLOMAN AIR FORCE BASE, EPA ID # NM6572124422
HWB-HAFB-14-008

Dear Ms. Rothhaupt:

The New Mexico Environment Department (NMED) has reviewed the above referenced document submitted by Holloman Air Force Base (the Permittee) on December 12, 2014. NMED finds that the subject document is deficient and hereby issues this Disapproval for the reasons discussed below.

1. Page 3-1, Section 3.1.1, 3rd Paragraph, Page 3-6, Section 3.1.3, Last Paragraph, Pages 3-30 and 3-31, Section 3.7, Pages 3-34 and 3-35, Sections 3.7.2 and 3.7.3, and Pages 94 and 95, QAPP Worksheet #17

These sections indicate that munitions constituent sampling will be conducted using composite sampling techniques for explosives and metals at confirmed locations of munitions and explosives of concern (MEC) as well as composite sampling for explosives, anions and perchlorate at isolated locations where evidence of potential propellant contamination (e.g., discolored soil) is observed. The sections also indicate that representative surface soil samples will be collected at rocket/missile launch pad locations not exhibiting obvious evidence of contamination using the incremental sampling method. NMED does not accept composite sampling as part of site characterization for compliance pur-

poses. Discrete sampling for the constituents specified in the work plan must be conducted at confirmed locations of MEC and at isolated locations showing evidence of potential propellant contamination (e.g., discolored soil). Incremental sampling may be used as a screening tool to locate areas that may require further investigation at the rocket/missile launch pad locations as proposed. These locations must then be further characterized using discrete sampling methods.

The Permittee shall submit a revised work plan incorporating the above revisions.

2. Page 3-32, Table 3-3, Soil Screening Standards

The following USEPA Regional Screening Levels (RSLs) and recommended Human Health Soil Screening Values (HHSSVs) need to be revised to correspond to the residential exposure values listed in NMED's Risk Assessment Guidance (December 2014 as updated July 2015):

- Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX): Should be 60.4 milligrams per kilogram (mg/kg), not 230 mg/kg
- Nitrobenzene: Should be 60.4 mg/kg, not 130 mg/kg

In addition, the descriptors in the lettered footnotes of the table (*a, b* and *c*) do not match what is shown in the table headings. Also, either the default value based on a Dilution Attenuation Factor (DAF) of 20 or a calculated site-specific DAF must be included for each compound in the table.

The Permittee shall submit a revised work plan incorporating the above revisions.

3. Page 3-35, Section 3.7.4, Groundwater Sampling (If Necessary), Pages 17 and 18, QAPP Worksheet #11 and Page 95, QAPP Worksheet #17

These sections state that if soil sampling results indicate the potential for contaminant migration into groundwater (i.e. leachability) then groundwater samples will be collected at the specific source location for the identified contaminant of concern. However, the protocol to be used to assess the potential for contaminant migration to groundwater is not stated.

The Permittee shall submit a revised work plan indicating how the potential for contaminant migration to groundwater will be assessed.

4. Page 84, QAPP Worksheet #15, Project Action Limits Table, Soils

The following RSLs and recommended HHSSVs need to be revised to correspond to the residential exposure values listed in NMED's Risk Assessment Guidance (December 2014 as updated July 2015):

- 2,4-Dinitrotoluene: Should be 17.1 mg/kg, not 120 mg/kg
- 2,6-Dinitrotoluene: Should be 3.56 mg/kg, not 19 mg/kg
- RDX: Should be 60.4 mg/kg, not 230 mg/kg

The Permittee shall submit a revised work plan incorporating the above revisions.

5. Page 86, QAPP Worksheet #15, Project Action Limits Table, Aqueous

The header for the table indicates that the Human Health Groundwater Screening Values (HHGSVs) are shown in "***milligrams/liter (µg/l)***". This should read "***micrograms/liter (µg/l)***". Also, the following recommended HHGSVs need to be revised:

- 2-Amino-4,6-Dinitrotoluene and 4-Amino-2,6-Dinitrotoluene: Should be 39 µg/l, not 3.9 µg/l
- Nitroglycerin: Should be 2 µg/l, not 0.2 µg/l
- HMX: Should be 1000 µg/l, not 100 µg/l
- 2,4,6-Trinitrotoluene: Should be 2.5 µg/l, not 0.98 µg/l

In addition, there are no Project Action Limits provided for the list of explosives to be analyzed using USEPA Method 846, 8330A (as shown on Pages 82 and 83 for soils) or for metals in groundwater.

The Permittee shall submit a revised work plan incorporating the above revisions.

The Permittee shall submit a revised work plan in the form of an Investigation Work Plan or an Accelerated Corrective Measures Work Plan, if the field work can be completed within 180 days, or a Corrective Measures Work Plan if the field work will take longer than 180 days. If a presumptive remedy for any contaminants found above Project Action Limits is proposed, the work plan must provide a proposal for post-excavation confirmatory sampling and waste profiling and disposal. The Permittee must submit the work plan to NMED on or before **December 31, 2015** in the form of two paper copies and one electronic copy (in MS Word/ Excel™ format).

If you have any questions regarding this matter, please contact Mr. David Strasser of my staff at (505) 222-9526.

Sincerely,

John E. Kieling
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
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HAFB-14-008