



SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Phone (505) 476-6000 Fax (505) 476-6030
www.env.nm.gov



RYAN FLYNN
Secretary
BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

August 1, 2016

Colonel Douglas W. Gilpin
Commander, 27th Special Operations
Mission Support Group
110 E. Alison Avenue, Suite 1098
Cannon Air Force Base

**RE: APPROVAL WITH MODIFICATIONS
SUPPLEMENTAL RCRA FACILITY INVESTIGATION
WORK PLAN FOR FT008
CANNON AIR FORCE BASE, NEW MEXICO
EPA ID #NM7572124454
HWB-CAFB-16-002**

Dear Colonel Gilpin:

The New Mexico Environment Department (NMED) has received Cannon Air Force Base's (Permittee) *Supplemental RCRA Facility Investigation Work Plan for FT008* (Work Plan), dated April 5, 2016 and received April 7, 2016. NMED has completed review of the Work Plan and issues this Approval with the following modifications.

Modifications:

1. Section 3.6, Human Health Risk Assessment

Permittee's Comment: "Although FT008 [Fire Department Training Area No. 3, Solid Waste Management Unit (SWMU) 107] is not utilized for residential purposes, the residential [soil screening levels] SSLs are more stringent than other SSLs (e.g., occupational, construction worker)".

NMED Comment: The Permittee's statement is not entirely accurate. For constituents where the inhalation pathway drives risk, the soil screening level for construction worker may be more conservative than that for the residential receptor. For example, manganese has a residential soil screening level of 1.05E+04 milligrams per kilogram (mg/kg), but the soil screening level for the construction worker exposure scenario is 4.65E+02 mg/kg. Remove the statement from all future submittals.

2. Table 4-4, Summary of 2012 Remedial Investigation Analytical Data

NMED Comment: The reported m,p-xylenes and o-xylene concentrations for C107-SB09-12, C107-SB09-028, and C107-SB10-028 are listed as detected or estimated concentrations. However, the April 2013 *Final Source Remediation Report, Fire Training Area No. 8* and the included analytical report information indicate the analysis results should have been reported as nondetect. Correct Table 4-4 to present accurate data and submit replacement pages.

3. Additional Shallow Subsurface Delineation Sampling

NMED Comment: Sampling completed during the 2012 Remedial Investigation conducted by ERM Inc. was not comprehensive for the upper interval at many of the boring locations. In order to adequately characterize surface and shallow subsurface soils at key locations, additional soil samples must be collected at the following boring locations to resolve the identified data gaps:

- **C107-SB06:** The boring location has been designated as a location which will be resampled in Work Plan Figure 4-3, Planned Soil Sampling Locations. However, no sampling has been proposed in Table 4-6, Summary of Planned Sampling Locations and Analytical Parameters of the Work Plan. Clarify if the location will be resampled and amend the sampling plan accordingly. At a minimum, a surface soil sample must be collected, as well as subsurface soil samples at 4 to 5 feet below ground surface (bgs), 9 to 10 feet bgs, and 19 to 20 feet bgs (four additional samples).
- **C107-SB12:** It is unclear if the boring location was excavated during prior remediation activities. If excavation of contaminated soil at the previous boring location cannot be confirmed, a surface soil sample must be collected, as well as subsurface soil samples at 4 to 5 feet bgs and 9 to 10 feet bgs (three additional samples);
- **C107-SB13:** a surface soil sample must be collected, as well as a subsurface soil sample at 4 to 5 feet bgs (two additional samples);
- **C107-SB14:** a surface soil sample must be collected, as well as subsurface soil samples at 4 to 5 feet bgs and 9 to 10 feet bgs (three additional samples);

- **C107-SB15:** a surface soil sample must be collected, as well as subsurface soil samples at 4 to 5 feet bgs and 9 to 10 feet bgs (three additional samples).

Soil sample analysis for the additional samples must be conducted in accordance with parameters established in Table 4-6, Summary of Planned Sampling Locations and Analytical Parameters. Update Table 4-6 in the Work Plan to include the additional required sampling.

4. Figure 4-3, Planned Soil Sampling Locations

NMED Comment: The proposed soil sampling location for C107-SB03 is not depicted in the figure. The sample location has been designated as a location where soil sampling has been proposed in Table 4-6. Correct and submit the revised figure.

5. Appendix A, Analytical Laboratory Information: Reference Limits and Evaluation Table

NMED Comment: The following discrepancies were noted in the Reference Limits and Evaluation Table and must be corrected and a revised table provided.

- a. The table column header for the NMED dilution attenuation factor screening information must cite NMED's July 2015 Risk Assessment Guidance for Site Investigations and Remediation screening criteria.
- b. The title for the ninth column (2015 SO EPA MCL) appears to indicate that these values are maximum contaminant levels for drinking water as defined by EPA. The additional investigation proposed in the Work Plan only includes soil sampling. Cite the correct screening level in the column header, or remove the column and screening levels if they are not relevant to the proposed Work Plan scope of investigation.
- c. NMED soil screening levels (SSL) have not been established for Gasoline Range Organics (GRO). Remove the cited screening level for "Soil Industrial" (3,000 mg/kg) and "Soil Residential" (1,000 mg/kg) for GRO from the table.
- d. The July 2015 NMED Industrial SSL for selenium and silver is 6,490 mg/kg. Revise the table to present the correct SSL.
- e. NMED SSLs are established for m-xylene and total xylene. Revise the table to include the July 2015 NMED SSLs.
- f. The EPA Industrial regional screening level (RSL) for tert-butylbenzene is 1.20E+08 micrograms per kilogram ($\mu\text{g}/\text{kg}$). Revise the table to present the correct RSL.

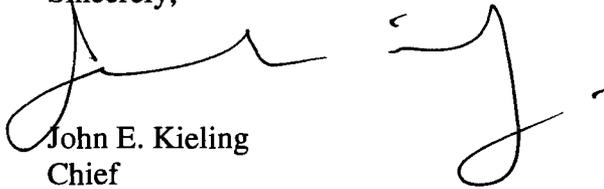
- g. The July 2015 NMED Residential SSL for 1,2,4,5-tetrachlorobenzene is $1.85E+04$ $\mu\text{g}/\text{kg}$ and the Industrial SSL is $2.75E+05$ $\mu\text{g}/\text{kg}$. The NMED construction SSL is correct. Revise the table to present the correct Residential and Industrial SSLs.
- h. The July 2015 NMED Industrial SSL for isopropylbenzene is $1.42E+07$ $\mu\text{g}/\text{kg}$. Revise the table to present the correct SSL.
- i. The July 2015 NMED Residential SSL for 1,2-diphenylhydrazine is $6.66E+03$ $\mu\text{g}/\text{kg}$ and the Industrial SSL is $3.21E+04$ $\mu\text{g}/\text{kg}$. Revise the table to present the correct Residential and Industrial SSLs.
- j. The November 2015 EPA Residential RSL for 4-nitroaniline is $2.7E+05$ $\mu\text{g}/\text{kg}$. Revise the table to present the correct RSL.
- k. The July 2015 NMED Construction SSL for anthracene is $7.53E+07$ $\mu\text{g}/\text{kg}$. Revise the table to present the correct SSL.
- l. The July 2015 NMED Construction SSL for fluoranthene is $1.00E+07$ $\mu\text{g}/\text{kg}$. Revise the table to present the correct SSL.
- m. The July 2015 NMED Residential SSL for gamma-BHC (Lindane) is $5.63E+03$ $\mu\text{g}/\text{kg}$, the Industrial SSL is $2.83E+04$ $\mu\text{g}/\text{kg}$, and the construction SSL is $9.43E+04$ $\mu\text{g}/\text{kg}$. The NMED groundwater protection screening level dilution attenuation factor (DAF) of 20 is 35.8 $\mu\text{g}/\text{kg}$. Revise the table to present the correct screening levels.

The Permittee must submit replacement pages for the revised Table 4-4, Table 4-6, the Appendix A, Reference Limits table, and Figure 4-3 to address NMED's comments. The replacement pages must be accompanied by a response letter that cross references NMED's numbered comments. The replacement pages and response letter must be provided by **September 30, 2016**.

Colonel Gilpin
August 1, 2016
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If you have any questions regarding this letter, please contact Gabriel Acevedo at (505) 476-6043.

Sincerely,

A handwritten signature in black ink, appearing to read 'John E. Kieling', written in a cursive style.

John E. Kieling
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
B. Wear, NMED HWB
N. Dhawan, NMED HWB
G. Acevedo, NMED HWB
A. Lafuente, CAFB
R. Lancaster, CAFB
S. Kottkamp, CAFB

File: CAFB 2016 and Reading, CAFB-16-002