



Certified Mail - Return Receipt Requested

March 16, 2023



Colonel Terence G. Taylor
Commander, 27th Special Operations Wing
100 Air Commando Way, Suite 100
Cannon Air Force Base
New Mexico 88103-5214

**RE: DISAPPROVAL
ACCELERATED CORRECTIVE MEASURE COMPLETION REPORT SITE DA508
CANNON AIR FORCE BASE, NEW MEXICO
EPA ID #NM7572124454
HWB-CAFB-22-004**

Dear Colonel Taylor:

The New Mexico Environment Department (NMED) has reviewed the Cannon Air Force Base (Permittee) *Accelerated Corrective Measure Completion Report Site DA508* (Report) dated May 11, 2022. NMED hereby issues this Disapproval. The following comments must be addressed.

COMMENTS

1. Section 4.3.6, Cumulative Human Health Risk Screening, Pages 4-3 and 4-4

NMED Comment: The most current NMED *Risk Assessment Guidance for Site Investigations and Remediation* (RA Guidance) was issued by NMED in November 2022. NMED's November 2021 RA Guidance was the applicable guidance document at the time of the May 2022 submittal of the Report. The Report must be revised to evaluate the site using either the November 2021 RA Guidance or the most current guidance document. Ensure that risk assessments for all sites are conducted using the most current NMED RA Guidance document.

2. Section 4.4.1, Comparison of Site Inorganics to Background, Pages 4-6 and 4-7

NMED Comment: The following issues must be addressed:

- a. The section discussion indicates that for surface and subsurface soil, cadmium was detected at a maximum concentration that exceeded the respective background upper threshold limit (UTL); however, the discussion also states that cadmium was

not detected in background samples. This was also noted for selenium in the surface soil background discussion. Table 4-1, Summary of Background Elemental Concentrations in Soil, notes clarify that the cadmium and selenium background concentrations are based on one-half of the highest reporting limit for each respective metal. This data qualification note must also be clarified in the section discussion for surface and subsurface soils for cadmium and selenium.

- b. The maximum concentration reported for lead for subsurface soil for the background evaluation in the section discussion (1.70E+01 mg/kg [milligrams per kilogram]) does not match the maximum concentration reported on Table E-3, Comparison of Maximum Detected Subsurface Soil (1 to 10-foot bgs [below ground surface]) Metal Concentrations at DA508 to Background Data (1.52E+01 mg/kg). Revise the Report to resolve this discrepancy.

3. Section 4.4.6, Cumulative DA508 Risk and Hazards, Page 4-9

NMED Comment: Table 4-2 and Table E-11 were referenced in the section discussion for cumulative risk totals for Site DA508; however, Table 4-2 and Table E-11 included hazard indices (HI) for total petroleum hydrocarbons (TPH) for residential, construction worker, and industrial worker exposure. As clarified in NMED's November 2021 RA Guidance Section 5.0, Use of the SSLs [Soil Screening Levels], risk from TPH must be evaluated separately if individual indicator chemicals have been included in cumulative risk and/or hazard totals for a site to prevent the over calculation of exposure. Table 4-2 and Table E-11 must be revised to remove the TPH HI totals, and revise Section 4.4.6 to accurately discuss cumulative risk screen totals for each human health receptor.

4. Section 4.5, Soil to Groundwater Evaluation, Pages 4-9 and 4-10

NMED Comment: Soil-to-groundwater screening levels (SL-SSL) for TPH in NMED's 2021 RA Guidance are more conservative than the 2019 RA Guidance TPH SL-SSLs used for evaluation of maximum concentrations of TPH gasoline range organics (GRO), diesel range organics (DRO), and oil range organics (ORO) in the Report. The Report must be revised to evaluate the soil-to-groundwater pathway for TPH using the 2021 RA Guidance SL-SSLs or most current guidance document, and additional lines of evidence must be provided in the section discussion to support the conclusion that residual concentrations of DRO and ORO will not pose a threat to groundwater.

5. Section 4.6, Site Conceptual Exposure Model, Pages 4-10 and 4-11

NMED Comment: Revise the section discussion to accurately report cumulative risk and hazard for the site for the residential, construction worker, and industrial worker scenarios in accordance with NMED Comment No. 3 of this letter and any other risk screen calculation

issues noted in this letter.

6. Section 5.1, Conclusions, Page 5-1

NMED Comment: Ensure that cumulative risk and hazard for all human health site receptors is accurately discussed in the section in the revised Report.

7. Section 5.2, Recommendations, Page 5-1

Permittee Statement: “Based on the conclusions and evidence presented in Section 5.1, DA508 is recommended for CAC [corrective action complete] without Controls.”

NMED Comment: As previously addressed in NMED’s June 24, 2021, *Approval with Modifications Accelerated Corrective Measures Work Plan Site DA508* (Approval with Modifications) Comment 1b and as evidenced by information documented in the August 22, 2011 *Site Investigation at Eight Sites Project Activities Work Plan* (Eight Sites Work Plan), Appendix D, Historical Site Information, April 2011 Site Visit Notes, a potential source area of DA508 that included burned debris (e.g., wood, metal, piping, and mechanical parts) was noted by the Permittee as SWMU 107, Fire Training Area No. 3. SWMU 107 adjoins DA508 to the south, and per-and polyfluorinated alkyl substances (PFAS) contamination has been identified in association with SWMU 107 based on the use of aqueous film forming foam at the site as documented in the August 2018 *Final Site Inspection Report Cannon Air Force Base, NM [New Mexico] Site Inspection of Aqueous Film Forming Foam (AFFF) Release Areas Environmental Programs Worldwide*.

The Permittee’s response to NMED’s Approval with Modifications Comment 1b stated in part that, “SWMU 107 is a separate site adjoining DA508 to the south. SWMU 107 is a former fire training area and as such would be anticipated to have PFAS related contamination. PFAS contamination identified at SWMU 107 is not related to DA508 which is identified as a surface debris site. Any concerns regarding PFAS contamination should be addressed under investigations at SWMU 107. Adding this information to the site history for DA508 is inappropriate as the source of the surface debris has not been identified and cannot be definitively attributed to the fire training area.” NMED does not agree with the Permittee’s response.

The direction provided in Approval with Modifications Comment 1b required the Permittee to include the previously documented additional site history information for DA508. An appropriate level of due diligence and transparency is essential as additional supporting basis for any conclusions and recommendations provided in the Report and is a requirement of the December 2018 *Hazardous Waste Permit for Cannon Air Force Base* (Permit), Sections 6.2.5 and 6.3.5, Background, for work plans and investigation reports, respectively. For DA508, an association with SWMU 107 was implied in the Permittee’s site

reconnaissance field notes included in the Eight Sites Work Plan and with no additional site history or environmental media sample data to the contrary, it must be assumed that PFAS contamination may also be present at DA508.

Furthermore, as previously clarified by NMED in other report and work plan response letters, PFAS releases to the environment at Cannon Air Force Base (CAFB) must be investigated under the Permit. PFAS are emerging contaminants of concern that meet the statutory definition for hazardous waste defined in New Mexico Hazardous Waste Act Section 74-4-3. K, Section 1004(5) of the Solid Waste Disposal Act, and Section 6903(5) of the United States Resource Conservation and Recovery Act and are defined as such in the Permit as required by 40 Code of Federal Regulations 270.32(b)(2) for protection of human health and the environment.

Based on this identified information and data gap issue, DA508 is not eligible for corrective action complete without controls at this time and will be added to Permit Table 1, List of Solid Waste Management Units and Areas of Concern Requiring Corrective Action, during a future Permit modification.

To resolve this issue, the Permittee must either provide a complete and definitive site history for DA508 that clarifies the origin of the debris pile; otherwise, the site is subject to additional investigation and risk assessment as required by the current NMED November 2022 RA Guidance (as updated) for PFAS (see Section 2.1.7 Contaminants of Emerging Concern) on the basis of the identified site history information gap and the sites potential association with adjoining SWMU 107. Screening levels for various PFAS are included in Table A-1, NMED Soil Screening Levels, of the RA Guidance, and the table will be updated as additional toxicity data becomes available. The Report must be revised to address this issue.

8. Table E-7, Human Health Quantitative Screening Evaluation Results for DA508 Residential Scenario, Pages 1 and 2

NMED Comment: The reported cumulative residential cancer risk (1E-05) on Table E-7 does not appear to be accurate based on NMED's review of the data used for the calculation, but it appears to not have affected the risk evaluation conclusions for the contaminants of concern evaluated. Review and revise the table data for residential cumulative risk for accuracy and ensure that any affected Report sections and supporting tables are revised, as necessary.

9. Table E-13, Summary of RFA Analytical Soils Results (Dioxins/Furans) 0 to 10-foot Interval Surface Disposal Area Site (DA508), Pages 1 through 4

NMED Comment: Dioxin/furan data for sample CA508-SS03-001 and CA508-SS08-001 was not reported on the table, but it appears that this has not affected the maximum concentrations reported for these contaminants of concern. Additionally, the same issue

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was identified for Table E-14 for the 0-to-1-foot human health exposure interval. Revise the tables to include the missing data.

The Permittee must submit a revised Report that addresses all comments contained in this Disapproval. In addition, the Permittee must include a response letter that cross-references where NMED's numbered comments were addressed. The Permittee must also submit an electronic redline-strikeout version of the revised Report showing all changes made to the Report. The revised Report must be submitted to NMED no later than **July 31, 2023**.

If you have any questions regarding this letter, please contact Gabriel Acevedo at (505) 690-5760.

Sincerely,



Dave Cobrain
Acting Chief
Hazardous Waste Bureau

cc: B. Wear, NMED HWB
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