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**CERTIFIED MAIL – RETURN RECEIPT REQUESTED**

May 17, 2018

Colonel Stewart A. Hammons  
Commander, 27<sup>th</sup> Special Operations Wing  
110 E. Alison Avenue, Suite 1098  
Cannon Air Force Base  
New Mexico 88103

**RE: APPROVAL WITH MODIFICATIONS  
STATUS REPORT SITE AT109  
CANNON AIR FORCE BASE, NEW MEXICO  
EPA ID #NM7572124454  
HWB-CAFB-17-011**

Dear Col. Hammons:

The New Mexico Environment Department (NMED) is in receipt of the Cannon Air Force Base (Permittee) *Status Report Site AT109 [Solid Waste Management Unit (SWMU) 109]* (Report), received November 29, 2017. NMED has reviewed the Report and hereby issues this approval with the following modifications.

**MODIFICATIONS**

**1. Section 2.2.7, Remedy Completion Report (RCR), Page 2-3**

**Permittee Statement:** “A draft RCR for SWMU 109 was located in June 2017. Data from this report was previously not incorporated into the history of work completed at SWMU 109, but has been incorporated into this status report. Only a draft version of the report has been identified. Final copies of the report and laboratory analytical data were not identified.”

**NMED Comment:** The absence of key confirmation sample analysis laboratory reports and sample depth information collected during the April and September 2009 RCR investigation

and contaminated soil excavation project work invalidates the information presented in Report Section 2.2.7. Additionally, reported residual concentrations of TPH exceeded NMED soil screening levels (SSLs) at various confirmation sample locations within the human health exposure interval (0 to 10 feet below ground surface (bgs)) in the project area as indicate by the available information. Report Conclusions Section 4.3.3, 2009 Excavation Area, indicates soil removal and sampling is planned where contaminant concentrations exceeding NMED soil screening levels (SSLs) for TPH have previously been identified within the human health exposure interval. However, due to the reported data gap, re-sampling and complete contamination delineation will be required at the 2009 RCR project area to support and validate any previously collected information prior to any further corrective measures activities at the site. The required additional investigation at the 2009 RCR project area must be incorporated into an investigation work plan for SWMU 109. Revise all affected Report sections to address the additional contamination delineation sampling requirement and provide corresponding replacement pages.

**2. Section 3.1, FPM/URS Investigation and Results, Page 3-1 through 3-7**

**NMED Comment:** TPH has been identified as the primary constituent of potential concern (COPC) at SWMU 109. However, NMED noted during review of the Report that analysis for semi-volatile organic compounds (SVOCs) was not conducted during most of the prior investigation and corrective measure activities completed at the site. Based on the TPH contamination identified at SWMU 109, which included Diesel Range Organics (DRO) and Oil Range Organics (ORO), it is likely that uncharacterized concentrations of SVOCs (i.e., polycyclic aromatic hydrocarbons (PAHs)) are present at the SWMU 109 investigation areas. Prior risk assessment performed and documented in the 1997 *Phase II RCRA Facility Investigation Report, Fire Training Area No. 4, SWMUs 109, 110, 111, and 112* also identified SVOCs and various metals as COPCs during the human health and ecological risk evaluation. Furthermore, TPH sample analysis results are qualitative data, which must be substantiated by specific chemical of concern (COC) quantitative information as required by NMED's 2017 *Risk Assessment Guidance for Site Investigations and Remediation (RA Guidance)* (Section 6.2, Total Petroleum Hydrocarbons in Soil). The presence of SVOC and metals must be evaluated in areas not previously addressed during prior site activities. The additional required sampling and analysis must be incorporated into an investigation work plan for SWMU 109. Revise all affected Report sections to reflect the need for additional investigation at the site and provide corresponding replacement pages.

**3. Section 3.5, Field Activities, Page 3-9**

**Permittee Statement:** "All field activities were completed in accordance with the approved WP [Work Plan] for SWMU 109 (RMA [RMA-Insight EECI] 2011)".

**NMED Comment:** Only the November 2014 investigation activities (ten soil boings to 60 feet bgs) were approved by NMED under the RMA 2011 *Sampling and Analysis Plan (Field Sampling Plan/ Quality Assurance Project Plan) Remedial Action Construction at Solid Waste Management Unit (SWMU) 109* (RMA Sampling and Analysis Plan). Additional

SWMU 109 project work conducted during the May 2015 through May 2016 sampling events which included sampling at the northern and southern contamination areas was completed by the Permittee without an NMED-approved work plan. Revise the statement and all affected Report sections to indicate that the project work completed in addition to the November 2014 investigation work was conducted at risk without an approved work plan. Provide all corresponding replacement pages.

**4. Section 4.2, Data Gaps, Page 4-2**

**NMED Comment:** TPH has been identified as the primary COPC at SWMU 109. Therefore, it is expected that concentrations of SVOCs and, potentially, metals may be present in areas where TPH contamination has been identified. Information provided in the Report and previously collected site investigation information indicate that these COPCs were not completely characterized for all areas subject to investigation at SWMU 109. Additionally, the extent of contamination was not defined in the northern contamination area west of soil boring locations SB34, SB35, and SB36.

Revise Section 4.2 accordingly and provide corresponding replacement pages.

**5. Section 4.3, Recommendations, Page 4-2**

**Permittee Statement:** "TPH contamination was identified in the central portion of SWMU 109. However, contamination in this area was identified at depths exceeding the human health risk interval of 0 to 10 feet bgs. Therefore, this contamination does not represent a human health risk."

**NMED Comment:** The Permittee's statement is not consistent with the information provided in the Report. Sampling conducted during the 2009 RCR contamination delineation and excavation project work identified TPH contamination at the central portion of SWMU 109 within the human health exposure interval. The available RCR information indicates that residual contamination above NMED SSLs is still present at the central portion of the site. Site contamination has also not been completely characterized for additional COPCs (SVOCs and metals) identified during prior risk evaluation at SWMU 109. Confirmation sample analysis data reports and sample depth information was reported as not available for the 2009 RCR project work. Therefore, human health risk is still a concern at the central portion of SWMU 109 until the identified data gaps are resolved. Revise the statement accordingly and provide corresponding replacement pages.

Additional data is required to adequately address any further human health and ecological risk evaluation at SWMU 109. In conformance with NMED's RA Guidance, any additional delineation and confirmation sampling at SWMU 109 must include sample analysis for volatile organic compounds (VOCs), SVOCs, and metals in addition to the proposed TPH analysis (i.e., gasoline range organics, DRO, and ORO). Additional contamination delineation for SVOCs and metals is required at site areas where only TPH and VOCs soil sample analysis data was previously collected. The sampling requirement must be included

in the additional investigation work plan for SWMU 109. Revise Section 4.3 and any other affected Report sections accordingly and provide corresponding replacement pages.

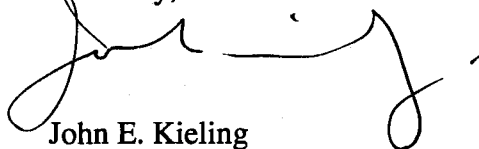
Evaluation of emerging COCs Per- and Polyfluoroalkyl Substances (PFAS) may also be required in the future at areas where fire suppression foams have been utilized.

A work plan for additional investigation at SWMU 109 must be submitted to NMED for review and approval prior to initiation of any additional project work at SWMU 109.

The Permittee must provide replacement pages that address NMED's modifications, a response letter that cross-references where NMED's modifications were addressed, an electronic redline-strikeout version of the Report, and a revised electronic copy of the Report to NMED no later than **July 31, 2018**. The work plan for the additional required investigation must be submitted no later than **September 14, 2018**.

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

Sincerely,



John E. Kieling  
Chief  
Hazardous Waste Bureau

cc: D. Cobrain, NMED  
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