NEW MEXICO
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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Deputy Secretary

JUL - 2 2020

Colonel Robert A. Masaitis
Commander, 27th Special Operations Wing
100 Air Commando Way, Suite 100
Cannon Air Force Base
New Mexico 88103-5214

RE: DISAPPROVAL
GROUNDWATER MONITORING FIELD SAMPLING PLAN 2019
MELROSE AIR FORCE RANGE
EPA ID# NM5572124456
HWB-MELR-19-002

Dear Colonel Masaitis:

The New Mexico Environment Department (NMED) has received the United States Air Force (Permittee) *Groundwater Monitoring Field Sampling Plan* (FSP), submitted on behalf of Melrose Air Force Range and dated September 25, 2019. NMED hereby issues this Disapproval. NMED's comments are provided in the attachment to this letter. The Permittee must address all comments in the attachment.

The Permittee must submit a revised FSP 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 FSP showing all changes made to the FSP. The revised FSP must be submitted no later than **August 31, 2020**.

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

Sincerely,

Kevin Pierard
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
B. Wear, NMED HWB
G. Acevedo, NMED HWB
L. King, EPA Region 6 (6LCRRC)
R. Lancaster, CAFB
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C. Gierke, CAFB
M. Fuchs, CAFB
C. Chavez, CAFB

File: CAFB 2020 and Reading

Attachment

NMED COMMENTS

GENERAL COMMENTS

1. **Required Permittee Document Certification Statement**

   NMED Comment: The Permittee's revised Field Sampling Plan (FSP), as well as all documents submitted to NMED, must include the following 40 Code of Federal Regulation (CFR) Section 270.11(d)(1) statement for signatories to reports and work plans:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

   Failure to include the signed statement in the revised FSP, or any other submittal to NMED, constitutes non-compliance and may result in an enforcement action.

2. **Page Numbers Requirements**

   NMED Comment: Every page of every submittal, including all pages within sections and appendices, must be numbered either sequentially or in some other logical format. As necessary, revise the FSP accordingly.

SPECIFIC COMMENTS

3. **Section 1.2, Site Description and History, Page 1-3**

   Permittee Statement: "Monitoring well MAO2MW001D (SWMU [Solid Waste Management Unit]-131) is located approximately 1,500 feet to the northeast of ST [Storage Tank]-506."

   NMED Comment: Information provided in the Permittee's May 13, 2014 notification identifying ST-506 and associated contamination indicates that the storage tank site is located at or near Melrose Air Force Range (MAFR) Building 3121. Based on readily available aerial photography and prior report information, monitoring well MAO2MW001D appears to be located approximately 300 feet northeast of Building 3121. Review the information provided in the statement and ensure that the distance reported between monitoring well MAO2MW001D and ST-506 is accurate. Additionally, cite and appropriately reference any correspondence or other information which includes location information for ST-506 in the revised FSP.

4. Section 1.3, Inactive Wells, Page 1-7

Permittee Statement: "There are several wells located on MAFR that were included in previous monitoring plans, but are now abandoned, inaccessible because of safety hazard, outside of the MAFR boundary, or inactive and are not part of the scope of this FSP."

NMED Comment: Provide additional section discussion addressing the change to the MAFR southern property boundary that resulted in "water-level only" wells MWL-11 and MWL-12 being removed from the data collection schedule. Revise the FSP accordingly.

5. Section 1.7, Applicable Regulations/Standards, Pages 1-9 and 1-10

NMED Comment: The applicable cleanup levels for evaluation of all chemicals of concern (COCs) in groundwater at MAFR shall be the New Mexico Water Quality Control Commission (WQCC) groundwater quality standards, 20.6.2.3103 New Mexico Administrative Code (NMAC), the cleanup levels calculated for toxic pollutants listed in 20.6.2.7.T(2) NMAC, and the drinking water maximum contaminant levels (MCLs) adopted by EPA under the federal Safe Drinking Water Act (42 U.S.C. 300f to 300j-26). If both a WQCC groundwater quality standard and an MCL have been established for an individual COC, then the lower of the levels shall be the cleanup level for that substance. The most recent version of the NMED's Tap Water Screening Levels listed in Table A-1 of the 2019 NMED Risk Assessment Guidance for Site Investigation and Remediation (as updated) shall be used to establish the cleanup level if neither a WQCC standard or an MCL has been established for a specific COC. In the absence of an NMED tap water screening level, the EPA Regional Screening Levels for Chemical Contaminants at Superfund Sites (RSLs, as updated) for tap water shall be used as the cleanup level. As an exception, hexavalent chromium concentrations must be evaluated using the WQCC groundwater quality standard for dissolved chromium. Revise the FSP to reflect the required groundwater cleanup level standards.

6. Section 2.3, Laboratory Analysis, Pages 2-2 and 2-3

NMED Comment: The following Section 2.3 issues must be addressed as follows:

a. The Permittee stated, "[t]he select laboratory(-ies) will be accredited in accordance with the National Environmental Laboratory Accreditation Program (NELAP) or the DOD Environmental Laboratory Accreditation Program (ELAP) MAFR will supply the laboratory name and certifications to NMED upon request." The Permittee must provide the name of the contract laboratory(-ies) that will perform groundwater sample analysis and discuss the laboratory's certifications in the revised FSP. The laboratory NELAP and/or DOD-ELAP certification must be provided in an additional appendix of the revised FSP. Revise the FSP accordingly.

b. At a minimum, the target compound lists provided on Tables 2-4, 2-5, and 2-6 for volatile organic compounds, explosives, and target analyte list metals must also be appropriately referenced in the section discussion. The revised FSP must also include target compound list tables that included all COCs. Additionally, the Permittee must ensure that method detection limits for COCs are less than their respective background, screening, and regulatory cleanup levels. The Permittee must also ensure that practical quantitation limits for all COCs do not exceed 20 percent of the cleanup, screening, or background levels, where achievable. Sample analysis data summary tables provided in the annual groundwater monitoring reports must include the practical quantitation and method detection limits for COCs. Detection limits that exceed applicable background, screening, and regulatory cleanup levels are data quality exceptions and must be noted in the FSP, where identified, and must be addressed in each annual groundwater monitoring report. Revise the FSP accordingly.

c. The analytical data packages submitted to NMED in annual groundwater monitoring reports must be submitted as EPA-established Level II analytical support protocol. However, the laboratory analytical data package must be prepared in accordance with EPA-established Level III or IV analytical support protocol and must be kept on file by the contract laboratory and be made available to the Permittee upon request. Revise the FSP accordingly.

7. Section 2.7, Investigative Derived Waste [IDW], Pages 2-5 and 2-6

NMED Comment: The following Section 2.7 issues must be addressed as follows:

a. The Permittee stated, "[m]onitoring well analytical results from the associated samples will be used to characterize the IDW by applying the Rule of Twenty." IDW groundwater may not be evaluated using the "Rule of Twenty". Environmental Protection Agency Method 1311 Toxicity Characteristic Leaching Procedure analysis procedure and 40 CFR 261.24 defines a liquid as the waste extract. For solids, extraction is performed by use of an extraction agent equal to 20 times the weight of the solid phase. Therefore, use of the "Rule of Twenty" for evaluation of the RCRA toxicity characteristic only applies to waste that is a solid, not liquid waste. Representative sample analysis results for groundwater samples collected at site monitoring wells must be screened directly with established 40 CFR 261.24 Table 1, Maximum Concentrations of Contaminants for Toxicity Characteristic screening levels when potentially toxic constituents are detected in IDW water. Furthermore, adequate hazardous waste characterization also requires representative waste analysis for corrosivity, ignitability, and reactivity prior to a disposal determination. Revise the FSP to comply with the requirements for IDW toxicity characterization

and to include additional required hazardous waste characterization analyses for corrosivity, ignitability, and reactivity.

b. The Permittee stated, "Except for naturally-elevated concentrations for parameters chloride, manganese, sulfate, and TDS [total dissolved solids], if analytical results are less than the NMED screening values, then IDW will be discharged to the ground surface from where the aqueous IDW was generated." In addition to chloride, sulfate, and TDS, various metals have periodically been reported at concentrations that exceed applicable screening levels. Therefore, IDW groundwater or decontamination water may not be discharged to the ground surface at MAFR without prior authorization by NMED as required by 20.6.2 New Mexico Administrative Code (NMAC) groundwater protection standards. Proof of NMED authorization for discharge of IDW waste to the ground surface at MAFR must be provided in each annual groundwater monitoring report for IDW generated during the groundwater monitoring events. In the absence of the required authorization, all IDW wastewater must be disposed at an appropriate off-site disposal facility. Revise the FSP accordingly.

c. The Permittee stated, "[d]isposal of liquid IDW will be documented in a memo that describes the final handling of IDW per the methodology above". Disposal of IDW must be reported in each annual groundwater monitoring report. All waste disposal documentation, waste characterization sample results, or other records pertaining to IDW disposal for the reporting year must be included in the respective groundwater monitoring report in an appendix. Revise the FSP accordingly.

8. Section 3.0, Quality Assurance Samples, Pages 3-1 and 3-2

NMED Comment: The following Section 3.0 issues must be addressed as follows:

a. The Permittee stated, "[s]ystematic QC [quality control] checks include the scheduled analyses of field and laboratory duplicate, standards, surrogates, spiked samples, and blanks." The revised FSP must include a detailed discussion of the data quality objectives and the actual systematic quality assurance and quality control (QA/QC) checks and procedures to be used to evaluate and validate sample analysis data. The QA/QC analytical data review and validation must be discussed in each annual groundwater monitoring report for each sampling event. Supporting QA/QC documentation, such as, data validation reports must be included as an appendix in each respective annual groundwater monitoring report. Revise the FSP accordingly.

b. The FSP must be revised to include the collection of field blank samples. The field blank samples must be collected at a frequency of one field blank sample per day. Filed blanks must be generated by filling sample containers in the field with

deionized water at a sampling location and submitting the sample along with groundwater samples to the analytical laboratory. The field blank samples must be analyzed for the same analytical suite the monitoring well is tested for. Revise the FSP accordingly.

c. Revise the FSP to include the collection of QC field split samples for VOCs and other COCs at a five-percent frequency as previously proposed in the NMED approved April 2015 *Groundwater Monitoring Field Sampling Plan* for MAFR and reported in subsequent annual groundwater monitoring reports or provide the rationale for discontinuing collection of field split samples in the response letter. Revise the FSP as necessary.

9. Figure 1-2, Monitoring Well Network, September 2018

NMED Comment: Identified issues with the Figure 1-2 must be addressed as follows:

a. Abandoned monitoring well MAO2MW001S has been depicted on the figure as MAO2MW0015. The figure in the revised FSP must include the correct well identification for the monitoring well. Revise the FSP accordingly.

b. Inactive water-level only wells MWL-2 and MWQ-3 listed on Table 1-2, Inactive Wells, are not depicted on Figure 1-2. The figure in the revised FSP must include wells MWL-2 and MWQ-3 labeled as inactive wells. Revise the FSP accordingly.

10. Figure 1-4, Chinle Groundwater Flow Map, October 2018

NMED Comment: Monitoring wells MAO1MW001 and MAO1MW004 are transposed on the figure. Based on prior NMED approved 2013, 2014, and 2015 MAFR annual groundwater monitoring report information, MAO1MW004 is the northern monitoring well and MAO1MW001 is the southern monitoring well for SWMU 130. Revise the figure to depict all monitoring wells in their correct locations.

11. Figure 1-5, Solid Waste Management Units and Monitoring Wells

NMED Comment: Identified issues with the figure must be addressed as follows:

a. SWMU 130 monitoring wells MAO1MW003 and MAO1MW004 locations are transposed on the figure. Based on well location information previously provided in NMED approved MAFR Annual Groundwater Monitoring Reports for 2013, 2014, and 2015, MAO1MW004 is the northern monitoring well and MAO1MW003 is the eastern monitoring well for SWMU 130. Revise the figure to depict all monitoring wells in their correct locations.

b. SWMU 114 monitoring wells M114MW001 and M114MW004 locations are transposed on the figure. Based on well location information previously provided in prior NMED approved MAFR annual groundwater monitoring reports, M114MW001 is the central well and M114MW004 is the northeastern monitoring well for SWMU 114. Revise the figure to depict all monitoring wells at their correct locations.

c. SWMU 131 monitoring well MAO2MW001S is depicted in the wrong location on the figure. Based on well location information previously provided in prior NMED approved MAFR annual groundwater monitoring reports, MAO2MW001S was one of two nested wells located at SWMU-131. Revise the figure accordingly.

d. Ensure the figure scale is accurate in the revised FSP. Revise the figure as necessary.

12. Appendix C, Field Forms

NMED Comment: The Well Wizard purge pump system diagram included in Appendix C is not a field form. Include the diagram in a separate appendix of the revised FSP.