



MICHELLE LUJAN GRISHAM
GOVERNOR

 **ENTERED**
JAMES C. KENNEY
CABINET SECRETARY

Certified Mail - Return Receipt Requested

February 6, 2023

Colonel Jason F. Vattioni
Base Commander
377 ABW/CC
2000 Wyoming Blvd SE
Kirtland AFB, NM 87117

Ms. Melissa Clark
Civil Engineer Office
377 MSG/CEIE
2050 Wyoming Blvd SE
Kirtland AFB, NM 87117

**RE: SECOND DISAPPROVAL
OPERATIONS AND MAINTENANCE PLAN GROUNDWATER TREATMENT SYSTEM
BULK FUELS FACILITY SOLID WASTE MANAGEMENT UNITS ST-106 AND SS-111
REVISION R4
KIRTLAND AIR FORCE BASE, NEW MEXICO
EPA ID# NM6213820974
HWB-KAFB-20-003**

Dear Colonel Vattioni and Ms. Clark:

The New Mexico Environment Department (NMED) is in receipt of the Kirtland Air Force Base (Permittee) *Operations and Maintenance Plan Groundwater Treatment System, Bulk Fuels Facility, Solid Waste Management Units ST-106/SS-111, Revision R4 (O&M Plan)*, dated March 2021. NMED has reviewed the O&M Plan and hereby issues this Second Disapproval with the following comments.

GENERAL COMMENTS

1. Coverage of the O&M Plan

NMED Comment: New information (e.g., information regarding well KAFB-106IN2) was added to the O&M Plan. However, the O&M Plan must only cover the proposed activities for year 2020. Therefore, the Permittee must not substitute this submittal with the subsequent O&M Plan update (2021 O&M Plan). A separate O&M Plan that covers the proposed 2021 activities must be submitted to NMED. As of September 30, 2021, NMED has not received the 2021 O&M Plan. The Permittee must submit the 2021 O&M Plan or submit a request for an extension to the submittal date upon receipt of this letter.

SCIENCE | INNOVATION | COLLABORATION | COMPLIANCE

Hazardous Waste Bureau - 2905 Rodeo Park Drive East, Building 1, Santa Fe, New Mexico
Telephone (505) 476-6000 - www.env.nm.gov

KAFB5265



2. Lack of Organization in Appendices

NMED Comment: Appendix A contains total of 636 pages with three subsections (A-1, A-2, and A-3) and subsections A-1 and A-3 contain multiple documents without a table of contents. In addition, Appendix A-2 was independently included as a standalone document which is appropriate; however, Appendices A-1 and A-3 were combined and appear to be unorganized. Similarly, Appendix H contains 5,027 pages of the product information presented in multiple documents without a table of contents. It is difficult to locate specific information in the appendix. Include a table of contents for the appendices. Revise the O&M Plan accordingly.

3. Lack of Organization in the Revision Tracking Table

NMED Comment: There are multiple issues regarding the organization of the revision tracking table included in the O&M Plan. Address the following to resolve the issues:

- a) Comment 1 of the NMED's *Disapproval*, dated December 17, 2020, states, "provide appropriate page numbers in all parts of the O&M Plan, including tables, figures, and appendices." The revision tracking table does not provide page numbers. Provide page numbers in the revised O&M Plan.
- b) The revision number and corresponding date do not match in the revision tracking table. For example, Revision 3 is dated twice as June 2019 and March 2020. Since the changes for the March 2020 revision describe removal of appendices from the June 2019 revision, the March 2020 revision should have been counted as Revision 4. Correct the error, as appropriate.
- c) Tracking revisions with revision numbers may easily cause editorial errors. In order to better track revision number and clearly identify revisions specific to the year, the title of the O&M Plan must include relevant year (e.g., 2020 for this O&M Plan) with appropriate revision number specific to the relevant year. For instance, this document should have been titled as "2020 O&M Plan, Revision 1". Revise the title of the O&M Plan and all future O&M Plans accordingly.
- d) The March 2021 revision does not provide information regarding the titles of sections and appendices where revisions were made. Include the titles of the sections/appendices in the revised revision tracking table.

- e) The description of changes in Appendices G and O in the March 2021 revision states, “[r]emoved as requested.” NMED did not request removal of the appendices. The Disapproval Comments 47, 50 and 51 rather requested additional information regarding Appendices G and O. However, these appendices were removed from the O&M Plan by the Permittee. A basis for the removal was explained in the O&M Plan; however, NMED did not request removal of the appendices. Revise the description for accuracy.

- f) In the last row where the section change was indicated in the March 2021 revision, the “[r]esponse to comments from NMED on Disapproval on the O&M Revision R3” was listed. However, such section is not identified in the O&M Plan. Provide a clarification or remove the listing.

- g) Although the March 2021 revision indicates that Appendices G and O are removed, the O&M Plan includes Appendix G, *Groundwater Treatment System Operations Log Sheets and Record Forms*. Accordingly, the titles of all appendices should have been shifted after Appendix F relative to the previous revision. These changes are not included in the table. Since the March 2021 revision does not provide information regarding the titles of sections and appendices where revisions were made, the changes are unidentified. List all revisions made to the previous version (Revision 3) in the revised O&M Plan.

SPECIFIC COMMENTS

4. Permittee’s Response to NMED’s Disapproval Comment 4, dated December 17, 2020

Permittee Statement: “Further description of these advanced oxidation processes is provided in Appendix I.”

NMED Comment: It is difficult to locate specific information without a table of contents in Appendix I (see Comment 2 above). Provide page numbers and the titles of the relevant sections so readers can find the specific information in the revised O&M Plan. In addition, Appendix I provides information regarding the sampling and analysis plan. It does not appear to be relevant to the description of the advanced oxidation processes. Correct the typographical error in the revised O&M Plan, as appropriate.

5. Permittee’s Response to NMED’s Disapproval Comment 5, dated December 17, 2020

Permittee Statement: “Page numbers on all tables, figures, and appendices have been added to the revised O&M Plan. (Note that page numbers may differ between the redline and clean versions)”

NMED Comment: Comment 5 of the Disapproval states, “[t]he relevant page numbers must be provided so that the information can easily be located.” Although page numbers are provided in Appendix L, *Well Construction Diagram and Borehole Logs*, relevant information for how to find the specific documents is not provided. The purpose of providing page numbers in tables, figures, and appendices is to facilitate identification of the references used in the text. However, page numbers alone do not facilitate locating specific information unless a table of contents is provided. Appendix L contains 139 pages with multiple documents. Although an electronic version provides a search function for specific documents, not all readers have access to computers. Provide a table of contents for appendices, where appropriate, in the revised O&M Plan.

6. Permittee’s Response to NMED’s Disapproval Comment 6, dated December 17, 2020

Permittee Statement: “All of the permits and agreements provided in Appendix A pertain to the construction and operation of the GWTS and are therefore relevant to the operation and maintenance of the GWTS.”

NMED Comment: Some documents included in Appendix A do not appear to be pertinent to GWTS operations or, at a minimum, clarification for why they are included in Appendix A is needed. Provide clarification for the following items in the response letter:

- a) Appendix A-1, pages 36 through 54, includes the NMED’s *Approval with Modifications Phase I RCRA Facility Investigation Report*, dated September 25, 2020. It is not clear how this document is relevant to the construction and operation of the GWTS. In addition, the *Approval with Modifications* stated that much of the Report information could not be used for decision-making.
- b) Appendix A-3, pages 94 through 277, includes the Facility Permit for the Open Detonation Unit. It is not clear how this document is relevant to the construction and operation of the GWTS.
- c) Appendix A-3 includes identical documents (e.g., KAFB Water Rights) as attachments to several other documents. Not only do they unnecessarily increase the number of pages, but they also make the appendix more disorganized and make it harder to locate specific information for readers. Do not include identical documents in the appendix.
- d) Appendix A-3 contains several documents with large attachments that may be irrelevant to the GWTS. Not only do they unnecessarily increase the number of pages, but they also make the appendix more disorganized. Remove irrelevant attachments from the appendix.

7. Permittee's Response to NMED's Disapproval Comment 9, dated December 17, 2020

Permittee Statement: "The dosing pumps are manually adjusted by the Operator to maintain a free chlorine concentration between 0.1 and 0.3 mg/L."

NMED Comment: The statement indicates that the optimal free chlorine concentration ranges between 0.1 and 0.3 mg/L. Clarify whether the optimal concentration concurrently minimizes biofouling and formation of undesirable byproducts (e.g., trihalomethanes) in the revised O&M Plan.

8. Permittee's Response to NMED's Disapproval Comment 10, dated December 17, 2020

Permittee Statement: "Appendix O – Technical Memo has been removed from the revised O&M Plan as the GAC max loading design is not applicable to system operational procedure[s] documented in this O&M Plan."

NMED Comment: The former Appendix O, *Technical Memorandum*, provided a discussion regarding the effectiveness of the carbon vessels. However, it was removed from the O&M Plan because it was not applicable to the current operations. Provide information regarding the effectiveness of the carbon vessels that is applicable to the current GWTS operations in the revised O&M Plan.

9. Permittee's Response to NMED's Disapproval Comment 13, dated December 17, 2020

Permittee Statement: "Information regarding well KAFB-106IN2 has been added throughout the text as necessary to describe discharge activity."

NMED Comment: Comments 2 and 13 of the Disapproval direct the Permittee to add information regarding the new injection well to the next annual revision of the O&M Plan (2021 revision) rather than the 2020 O&M Plan. Therefore, although the new information regarding the new injection well was added to this O&M Plan, NMED did not review or evaluate it because it should have been included in the 2021 O&M Plan. When the 2021 O&M Plan is submitted, the new information will be reviewed and evaluated. A separate O&M Plan that covers the proposed 2021 activities must be submitted to NMED (see also Comment 1).

10. Permittee's Response to NMED's Disapproval Comment 25, dated December 17, 2020

Permittee Statement: "[f]or any well disinfection, free chlorine concentrations after purging are targeted to less than 2 mg/L which is 50 percent of the National Primary Drinking Water Regulations 40 Code of Federal Regulations 141.54 Maximum residual disinfectant level

goals for disinfectants (U.S. Environmental Protection Agency, 1998).”

NMED Comment: A residual free chlorine concentration of 2 mg/L can oxidize various organics given sufficient reaction time. Comment 25 states, “explain whether the disinfection practice can affect analytical results in groundwater samples collected from these or neighboring wells.” The comment is not clearly addressed by the Permittee’s response. Clarify whether the analytical results may be affected by the presence of 2 mg/L free chlorine. In addition, Table 1-3, *GWTS Effluent UIC Well Discharge Limits*, page 1 of 1, lists effluent standard of total residual chlorine as 11 µg/L, which is significantly lower than the target residual free chlorine concentration of 2 mg/L. Provide a clarification in the revised O&M Plan.

11. Permittee’s Response to NMED’s Disapproval Comment 31, dated December 17, 2020

Permittee Statements: “These seven CoCs [Contaminants of Concern] have been identified as being present in untreated groundwater at concentrations potentially exceeding their respective regulatory action levels, and include ethylene dibromide (EDB), benzene, toluene, ethylbenzene, total xylenes, dissolved iron, and dissolved manganese. The CoCs and their respective effluent standards are listed in Table 2.” and, “Currently the system is only operational in the Interim Measure Operational Area located to the north of Ridgecrest Dr. SE. Groundwater monitoring results of this area have not indicated the presence of naphthalene, BTEX, or trimethylbenzenes.”

NMED Comment: A future detection of volatile organic compounds including hydrocarbon constituents is possible in untreated groundwater; therefore, it must be monitored. Unless the analytical laboratory is directed not to report certain analytes, every compound listed in the analytical method must be reported. The Permittee must report every compound detected above its respective detection limit. Include the provision in the revised O&M Plan.

In addition, Tables 2-1 through 2-4 are included in the O&M Plan; however, Table 2, which lists the contaminants of concern, and their respective effluent standards is not included. Table 1-3, *GWTS Effluent UIC Well Discharge Limits*, page 1 of 1, lists effluent standards for the seven compounds. Correct the typographical error in the revised O&M Plan, as appropriate.

12. Permittee’s Response to NMED’s Disapproval Comment 36, dated December 17, 2020

Permittee Statement: “These access agreements are legal documents that detail agreements between the Air Force and outside parties and are not subject to the NMED review and or related to the scope of a [sic] O&M Plan. It is the Air Force’s responsibility to obtain and renew any necessary agreements. Access agreements have been removed from the revised O&M Plan.”

NMED Comment: All documents submitted to NMED are subject to review and evaluation. The NMED's Disapproval Comment 36 states, "[t]he Permittee must renew this license as soon as possible and provide proof to NMED that continued access to this well has been secured." The Permittee's response does not address the comment. Clarify whether continued access to the Christ United Methodist Church was secured in the response letter.

13. Permittee's Response to NMED's Disapproval Comment 43, dated December 17, 2020

Permittee Statement: "Organization chart has been revised to include NMED HWB."

NMED Comment: NMED was entirely removed from the chart included in Appendix B, *Organization and Responsibilities*. NMED HWB is not included in the organization chart. Correct Appendix B as directed by Comment 43 in the revised O&M Plan.

14. Permittee's Response to NMED's Disapproval Comment 44, dated December 17, 2020

Permittee Statement: "Descriptions and identification tags have been added to all photos [in Appendix D]."

NMED Comment: The statement is not accurate. Since the description is not provided for each identification tag, it is still not clear what parts and equipment are presented in the pictures. Provide the descriptions of parts and equipment in each picture in the revised O&M Plan, as directed by Comment 44. Failure to follow NMED direction constitutes noncompliance and may result in an enforcement action.

15. Permittee's Response to NMED's Disapproval Comment 45, dated December 17, 2020

Permittee Statement: "Nomenclature within in [sic] the SCADA and HMI appear different due to character limitations within the programing. Because of this, it is not possible for the nomenclature withing [sic] the SCADA and HMI to match the standard nomenclature within the O&M Plan and other documents. Additionally, the SCADA and HMI are used solely by plant operators and engineers who are familiar with the controls system."

NMED Comment: Because the O&M Plan is reviewed by all stakeholders, the nomenclature of wells must be consistent; otherwise, a clarification must be provided where the nomenclature does not match to avoid confusion. Appendix F must be revised to include an explanation for the discrepancy.

Col. Vattioni and Ms. Clark
February 6, 2023
Page 8

16. Appendix A-1, Regulatory Correspondence, Common Comment and Response Worksheet (Version 3), pages 21 through 35

NMED Comment: The response worksheet included in Appendix A-1 shows the correspondence date as January 4, 2020. However, the *O&M Plan Revision R3* and the NMED's *Disapproval* were dated as April 2020 and December 17, 2020, respectively. It is not clear what "January 4, 2020" represents. Provide a clarification or correct the typographical error in the revised O&M Plan.

The Permittee must submit a revised O&M Plan that addresses all comments contained in the attachment. Two hard copies and an electronic version of the revised O&M Plan must be submitted to the NMED. The Permittee must also include a redline-strikeout version of the O&M Plan in electronic format showing where all revisions to the O&M Plan have been made. The revised O&M Plan must be accompanied with a response letter that details where all revisions have been made, cross-referencing NMED's numbered comments. The Revised O&M Plan must be submitted to NMED no later than **June 1, 2023**.

Should you have any questions regarding these comments, please contact me at (505) 629-6494.

Sincerely,

Rick Shean

Digitally signed by
Rick Shean
Date: 2023.02.06
07:53:32 -07'00'

Rick Shean,
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
B. Wear, NMED HWB
L. Andress, NMED HWB
L. King EPA Region 6 (GLCRRC)
S. Kottkamp, KAFB
R. Wortman, KAFB
K. Bicknell, ABCWUA
A. Tafoya, VA

File: KAFB 2023 Bulk Fuels Facility Spill and Reading