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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

January 16, 2020

Colonel David S. Miller
Base Commander
377 ABW/CC
2000 Wyoming Blvd SE
Kirtland AFB, NM 87117

Lt. Colonel Wayne J. Acosta
Civil Engineer Office
377 Civil Engineering Division
2050 Wyoming Blvd SE, Suite 116
Kirtland AFB, NM 87117

**RE: DISAPPROVAL
WORK PLAN FOR KIRTLAND AFB WYO-4 AREA OF CONCERN RCRA FACILITY
ASSESSMENT OCTOBER 2019
KIRTLAND AIR FORCE BASE, NEW MEXICO
EPA ID # NM9570024423
HWB-KAFB-19-013**

Dear Colonel Miller and Colonel Acosta:

The New Mexico Environment Department (NMED) received the U.S. Air Force (Permittee) Kirtland Air Force Base (Facility) *Work Plan for Kirtland AFB WYO-4 Area of Concern RCRA Facility Assessment October 2019 (Work Plan)*, on October 31, 2019. NMED has reviewed the Work Plan and hereby issues this Disapproval with the following comments:

GENERAL COMMENTS

1. Failure to Propose Appropriate Investigation

NMED Comment: In a Disapproval letter dated December 20, 2018, NMED required the Permittee to submit a work plan to complete a site investigation. The submitted Work Plan reads as an initial site assessment; no characterization work is proposed that would further ascertain the nature and extent of TCE contamination in the perched aquifer

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near the well WYO-4. The Work Plan must include a map with proposed locations for three new monitoring wells, proposed well construction diagrams, and a proposed date for installation, development, and sampling of the wells. Detailed descriptions of all proposed field activities must be included in the revised Work Plan.

2. Well Designations

NMED Comment: The Permittee has used multiple designations for wells in the Report. For instance, Section 4.2 of the Report discusses well TJA-07, while Section 6.2 and Table 1 of the Report lists this well as TJA-7. This is not acceptable. Use of multiple designations for wells results in confusion for document reviewers and the public. This issue is evident in many documents submitted by the Permittee. The Permittee must use the official full designation for each well in every reference for this and all future documents submitted to NMED.

SPECIFIC COMMENTS

3. Section 5.2.1 Soil Vapor Sampling, p. 5-1

Permittee statement: "Additionally, soil vapor samples will be collected from existing perched groundwater monitoring well numbers WYO-3, WYO-4, KAFB-0506, KAFB-2623, KAFB-2627, KAFB-3391 and TA1-W-06, TA1-W-07, TA2-W-01, TA2-W-28, TA2-NW1-325, TA2-SW-320 and TJA-07."

NMED Comment: Correct the designation for TA2-SW-320 to TA2-SW1-320 and add it to Table 2 for consistency. Correct the designation for TJA-02 to TJA-2; see comment 2. Also, WYO-3 is a regional aquifer well. Correct the Work Plan accordingly.

4. Section 5.2.4 Monitoring Well Installation, p. 5-2

Permittee statement: "If site conditions demonstrate based on Phase I activities, installation of additional monitoring wells is warranted and feasible, then monitoring wells will be constructed and a well installation work plan will be submitted to NMED accordingly."

NMED Comment: As stated in Comment 1 above, characterization work in the form of additional groundwater monitoring wells is required in order to further ascertain the nature and extent of TCE contamination in the perched aquifer near the well WYO-4, since there are no perched groundwater monitoring wells within approximately one-half mile from well WYO-4.

5. Section 5.2.4 Monitoring Well Installation, p. 5-2

Permittee statement: "Well screens are preliminary proposed at the following approximate depths:

- 5, 10, and 15 ft below ground surface for shallow soil vapor monitoring
- a 250 ft depth for deep soil vapor monitoring, and
- 300 feet below ground surface for groundwater monitoring"

NMED Comment: Add the rationale for the proposed soil vapor monitoring well screen depths in greater detail, and explain how samples collected from existing soil vapor monitoring wells TAG-SV-01, TAG-SV-02, and TAG-SV-03, which each have screened intervals at depths of 50, 100, 150, 200, and 250 feet, will be compared to soil vapor samples from the proposed new vapor and groundwater monitoring wells.

6. Section 6.2. Soil Vapor Sample Collection and Analysis, p. 6-1

Permittee statement: "Additionally, soil vapor samples will be collected from existing perched zone monitoring well numbers WYO-4, KAFB-2623, KAFB-2627, KAFB-0506, KAFB-3391, TA1-W-06, TA1-W-07, TA2-NW1-325, TA2-NW1-324, TA2-W-01, TA2-W-28 and TJA-7."

NMED Comment: TA2-NW1-324 is not listed in any of the tables or depicted on the figures in the Work Plan, and NMED has no information regarding the well. If TA2-NW1-324 exists and can be used for perched aquifer data collection, add it to all pertinent tables, figures, and sections of the Work Plan as appropriate.

In addition, explain the purpose of collecting soil vapor samples from the groundwater monitoring wells KAFB-0506, TA1-W-06, TA2-W-01, TA2-W-28, and TJA-7. As the screens of these wells are near the water table, soil vapor concentrations of VOCs should be proportional to their respective groundwater concentrations.

7. Section 6.2. Soil Vapor Sample Collection and Analysis, p. 6-2

Permittee statement: "Connect the Teflon tubing to the monitoring point port or groundwater monitoring well casing, the Summa canister, the isolation valve, the field gas detectors and the vacuum pump as shown on Figures 11 and 12."

NMED Comment: Describe the method of leak testing prior to sample collection in the Work Plan.

8. Section 6.3.3. Collection of Groundwater Samples from Monitoring Wells Using No-Purge Sampling Techniques, p. 6-4

Permittee statement: "The procedures below will be followed for passive sampling."

NMED Comment: Section 6.5.17.4 of the KAFB Permit states, "The Permittee may submit to the Department for approval, a written request for a variance from the described method of well purging for individual wells no later than 90 days prior to scheduled sampling activities." Passive sampling has not been approved for use at KAFB; prior to approval of passive sampling techniques, data acquired from the proposed techniques must be correlated with analytical laboratory data for samples collected from wells using previously used sampling methods at the time of passive sample collection for at least three discrete events for comparison.

In addition, the proposed sampling of existing groundwater monitoring wells KAFB-0506, TA1-W-06, TA2-W-01, TA2-W-28, and TJA-7 would provide little value, as several years of groundwater monitoring data from these wells already exists. Most of the existing groundwater wells proposed for sampling are located over half a mile from well WYO-4 and analysis results would not provide useful data regarding the nature and extent of TCE contamination in the perched aquifer near the well WYO-4 other than as background.

9. Section 6.5. Laboratory Analysis, p. 6-5

Permittee statement: "Soil vapor samples will be collected in one-liter Summa canister and analyzed for VOCs by Method TO-15."

NMED Comment: Figures 11 and 12 depict a sampling train with a six-liter summa cannister. Either correct the statement or the figures to ensure consistency.

10. Table 1, Summary of Groundwater Monitoring Wells, Water Supply Wells and Soil Vapor Monitoring Wells Vicinity of WYO-3 and WYO-4 Wells, Kirtland AFB, NM

NMED Comment: Table 1 is unreadable. Correct the table to be legible.

11. Table 2, Proposed Media Sampling and Analysis WYO-4 Area Wells

NMED Comment: Well KAFB-0506 is designated as KAFB-506 in Table 2. Correct the designations of this well for consistency. See Comment 2.

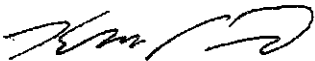
12. Figures

NMED Comment: Figures 1, 2, 8, 9, and 10 have no scale. Add a scale to each of these figures. In addition, Figures 1, 4, 5, and 6 all seem to be at a similar scale but do not depict the same wells. Adjust these figures so that, at a minimum, the wells proposed to be sampled (i.e., in Table 2) are depicted.

The Permittee must submit a revised Work Plan that corrects all of the deficiencies noted in this Disapproval. The revised Work Plan must be accompanied by a response letter (also included as an appendix) that details where the NMED's comments were addressed and cross-references the numbered comments. In addition, the Permittee must submit an electronic redline-strikeout version of the revised Work Plan that shows where all changes were made to the Work Plan. The revised Work Plan must be submitted no later than **April 30, 2020**.

If you have any questions regarding this letter, please contact Naomi Davidson at (505) 222-9504.

Sincerely,



Kevin Pierard
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
N. Davidson, NMED HWB
B. Wear, NMED HWB
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