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**NEW MEXICO
ENVIRONMENT DEPARTMENT**

Hazardous Waste Bureau

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 **ENTERED**



James C. Kenney
Cabinet Secretary

Jennifer J. Pruett
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

November 9, 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
RESPONSE TO OCTOBER 5, 2019 LETTER TO KAFB SANITARY SEWER LINE LF-002, JULY
2020
KIRTLAND AIR FORCE BASE, NEW MEXICO
EPA ID # NM9570024423
HWB-KAFB-19-008**

Dear Colonel Miller and Colonel Acosta:

The New Mexico Environment Department (NMED) received a letter from the Albuquerque Bernalillo County Water Utility Authority (ABCWUA) in response to NMED's October 5, 2019 letter to the U.S. Air Force (Permittee) Kirtland Air Force Base (KAFB) (Facility) concerning the required removal of the sanitary sewer line running through LF-002, on July 21, 2020. Because the ABCWUA responded rather than the Permittee, the letter was not addressed appropriately, and the Hazardous Waste Bureau did not receive the letter until September 4, 2020.

The ABCWUA letter requests that the requirement to plug and abandon the sanitary sewer line be removed from the KAFB Permit. The letter states that the existing line is constructed of vitrified clay and is in excellent condition. It further states that the exfiltration study and data from groundwater monitoring indicate that no exfiltration is occurring, and that the ABCWUA has committed to verifying the condition of the line every five years.

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The issue is not the quality of the sewer line or how often the sewer line is inspected. Rather, the issue is the threat to human health and the environment posed by leaving a major water conveyance device within a Resource Conservation and Recovery Act (RCRA) -regulated landfill containing hazardous and other solid waste. Landfills must be closed in a manner that is protective of human health and the environment with little or no maintenance.

The landfill is a Solid Waste Management Unit (SWMU) regulated under the Hazardous Waste Act (HWA) and the Hazardous Waste Management Regulations (HWMR), 20.4.1 NMAC. Leaving the sewer line in place would fail to meet the intent of the performance standards for the closure of hazardous waste landfills expressed in 40 C.F.R. § 264.310(a), which includes the standards "provide long-term minimization of migration of liquids through the closed landfill", "function with minimum maintenance", "...minimize erosion and abrasion", and accommodate settling and subsidence so that the integrity of the cover is maintained." NMED uses these performance standards to address the long-term protective measures for closed landfills that are SWMUs subject to the HWA and RCRA.

The Permittee owns and controls the land on which the landfill and sewer line are located and is responsible for the landfill. The sewer line, a major source of water, represents a potential to release liquids that could infiltrate the landfill and result in groundwater contamination in the future should the sewer line leak.

The ABCWUA response letter states that the 2018 Exfiltration study indicates that the sewer interceptor line does not exfiltrate based on a statistical assessment of the daily exfiltration rates calculated from the flow meter data gathered. However, the study is based on flow meters that are generally only accurate to +/- 10 percent. A one percent error rate on a flow of 1.3 million gallons per day is 13,000 gallons per day, which is enough to result in infiltration through the landfill and affect groundwater. Therefore, the study is not precise enough to demonstrate that no exfiltration is occurring.

The ABCWUA letter requests that the requirement to relocate the interceptor be removed from the permit because it is technically and physically infeasible. The reasons given for infeasibility are that SWMUs are located nearby, that the extent of the landfill is unknown, and that hydraulic issues (turbidity) may be caused by pipeline direction changes.

Rerouting the sewer line is technically feasible. The closest SWMU to LF-002 indicated on Table I-3, Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) Requiring Corrective Action, of the KAFB RCRA Permit is the DP-88 Trestle Site. There are no other known SWMUs within an 800-foot radius around LF-002. The extent of the landfill is known due to extensive research prior to placement of the current cover. Investigations include the *Installation Restoration Program Phase II—Confirmation/Quantification Stage 1, March 1985*, the *Installation Restoration Program (IRP) Stage 2 RFI Technical Report for Kirtland Air Force Base, New Mexico, December 1993*, the *Final Draft Phase 2 RCRA Facility Investigation Report, 1997*,

the *Supplemental Assessment of Multiple Landfills: CAU 6-1 (LF-001), CAU 6-2 (LF-002), CAU 6-3 (LF-007), CAU 6-4 (LF-008), CAU 6-8 (LF-015), CAU 6-11 (LF-044), CAU 6-29 (LF-020), and CAU LF-56 (LF-056), December 2002, the Final Corrective Measures Study Report for SWMU 6-1, Landfill 1 (LF-001); SWMU 6-2, Landfill 2 (LF-002); SWMU 6-4, Landfills 4, 5, and 6 (LF-008), November 2003, and the Long Term Monitoring Program. Finally, turbidity within a sewer line can be reduced by using wide obtuse angles rather than right or acute angles.*

The Permittee shall submit a Corrective Measures Implementation Work Plan to NMED for approval with a schedule for removing or abandoning the sewer line no later than **April 30, 2021**. Alternatively, the Permittee may submit a request for a Class 3 Permit Modification with a Work Plan that describes adequate methods of monitoring (which may include shallow angled monitoring wells, soil moisture measurement using neutron probes, time-domain reflectometry, thermocouple temperature probes, etc.) with monitoring frequencies that would adequately demonstrate that significant exfiltration of the sewer line does not occur over time. The Work Plan must be submitted no later than **June 30, 2021**.

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

Sincerely,

**Kevin
Pierard**

Digitally signed by
Kevin Pierard
Date: 2020.11.09
13:37:23 -07'00'

Kevin M. Pierard, Chief
Hazardous Waste Bureau

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