September 26, 2018

Mr. Chris Segura
Chief, Installation Support Section
AFCEC/CZOW
2050 Wyoming Blvd SE, Suite 124
Kirtland AFB, NM 87117-5270

RE: Soil and groundwater contamination with per- and poly-fluoroalkyl substances
Cannon Air Force Base, Clovis, New Mexico

Dear Mr. Segura:

The New Mexico Environment Department ("NMED") is in receipt of the U.S. Air Force ("USAF") Site Investigation Report ("SIR") concerning the presence of per- and polyfluoroalkyl ("PFAS") compounds, specifically perfluorooctane sulfonic acid ("PFOS") and perfluorooctanoic acid ("PFOA"), (collectively "PFOS/PFOA") in groundwater and soils at Cannon Air Force Base ("CAFBAFB"). PFAS are environmentally persistent, mobile in groundwater, and bioaccumulate in the food web.

According to the SIR, the USAF conducted a preliminary assessment of PFAS at CAFB in 2015, and a scoping site visit was held in 2016. The USAF identified 14 sites where Aqueous Film Forming Foam ("AFFF") may have been released at CAFB. These 14 sites included firefighter training areas, hangar fire suppression systems, firefighting equipment testing and maintenance areas, and emergency response sites for fuel spills and aircraft mishaps. In November and December 2017, the Air Force collected soil and groundwater monitoring well samples at and near the 14 sites where AFFF may have been released. These soil and groundwater samples were analyzed for PFAS compounds.

During a conference call on August 13, 2018, the Air Force informed NMED that PFAS compounds had been detected in groundwater at CAFB at concentrations exceeding the U.S.
Environmental Protection Agency ("EPA") Drinking Water Health Advisory Level of 70 nanograms per liter ("ng/L"). The EPA Drinking Water Health Advisory applies to PFOS and PFOA, individually or combined. Later in the day on August 13, 2018, NMED informed the Air Force by email that, "[t]he detection of contaminants in groundwater is a notifiable discharge even if the specific date, sources and volumes of the discharge are not yet known." NMED’s email requested that the Air Force provide a formal notice of discharge to NMED pursuant to New Mexico Ground and Surface Water Protection regulation 20.6.2.1203.A(1) NMAC, within 24 hours.

The Air Force provided official notification of the discharge by email on August 14, 2018 and submitted a written SIR to NMED on August 27, 2018. The Site Investigation report describes the history of AFFF use and potential AFFF releases on CAFB and includes PFAS test results for soil and groundwater monitoring wells on-Base. PFAS were detected in numerous soil samples, and in 10 of 18 monitoring wells tested. The highest concentrations of PFAS (up to 26,200 ng/L) were detected in monitoring wells located near the southeastern corner of CAFB. PFOS was detected at a concentration of 24,000 ng/L and PFOA was detected at a concentration of 2,200 ng/L. The Air Force’s August 14, 2018 notification of discharge also stated that the Air Force was going to conduct an expanded Site Investigation “to determine any potential impact to off-site domestic/livestock wells down-gradient from the installation boundary.”

Pursuant to WQCC regulation 20.6.2.1203.A(7) NMAC, NMED hereby conditionally approves the Site Investigation report that was submitted by the Air Force on August 27, 2018 as an interim Corrective Action report, subject to the following conditions:

1. The Site Investigation report states in Section 4.2.2, Groundwater Exposure Pathways and Receptors, “[t]he installation water supply wells were previously sampled as part of the Third Unregulated Contaminant Monitoring Rule for PFAS with no detections reported.” The PFAS test results for CAFB water supply wells were not included in the August 2018 Site Investigation Report, and the NMED Drinking Water Bureau has no record of such test results in its files. The Air Force provided sampling results from the 2016 drinking water system analyses to the NMED on September 20, 2018. The report should be amended to state that PFAS compounds were found at low levels in some of the samples.

2. NMED has not conducted a technical review of the SIR. This approval is for administrative completeness only. NMED may issue a notice of deficiency to the USAF after its technical review is completed.

The following additional corrective actions are required pursuant to 20.6.2.1203.A(5) NMAC:

1. NMED concurs with the USAF plan as outlined in the SIR to sample all water supply wells located within four miles of the southeastern corner of CAFB (i.e., the “potential contaminant zone” in the SIR). The USAF shall provide NMED with documentation that the USAF made due diligent and good faith efforts to timely obtain permission from owners of offsite wells in the zone. The USAF shall provide results from all sampling under this condition within forty-five (45) days of the date of this letter.
2. All future testing of soil and water on and near CAFB shall include analysis and quantification of perfluorobutanoate (PFBA, also known as perfluorobutanoic acid, perfluorobutyric acid and heptafluorobutyric acid).

3. Within thirty (30) days of the date of this letter, the Air Force shall resample all on-Base water supply wells for PFAS, including PFBA cited in condition 2 above. Within forty-five (45) days of the date of this letter, the Air Force shall submit a proposal, subject to NMED approval, to conduct a hydrogeologic investigation to define the extent of groundwater contamination by PFAS emanating from CAFB.

4. The Air Force is required to provide alternative drinking water source(s) to all individuals with affected water supplies.

As a reminder, the Air Force is additionally required to comply with all applicable local, state, and federal statutes and regulations applicable to this matter.

If you have any questions regarding this letter, please contact me at (505) 827-2919.

Sincerely,

Michelle Hunter, Chief
Ground Water Quality Bureau
Environment Department

MH:DM

cc: B. Tongate, NMED
    B. Yurdin, NMED
    J. Witte, NMDA
    L. Gallagher, DOH
    D. Cox, NMDA
    H. Krapfl, DOH
    N. McDuffie, NMED-GWQB
    J. Kieling, NMED-HWB
    S. Stringer, NMED-DWB
    S. Kottkamp, USAF
    L. King, EPA-Region 6 (6PD-N)
    D. McQuillan, NMED-OOTS