



DEPARTMENT OF THE AIR FORCE
AIR FORCE CIVIL ENGINEER CENTER
JOINT BASE SAN ANTONIO LACKLAND TEXAS

25 March 2022

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Mr. Mike Neller
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RE: AFCEC Response to Michigan Department of Environment, Great Lakes and Energy (EGLE) letter dated 20 Dec 2021

I am responding to Mr. Joshua Mosher's letter dated 20 Dec 2021 requesting responses to the 19 Feb 2021 letter regarding LF030/031 activities and the 23 Mar 2021 letter requesting additional interim remedial actions (IRA) for removal of Per- and Polyfluoroalkyl Substances (PFAS). The Air Force appreciates the active role EGLE plays in providing thoughtful and timely reviews ensuring that remediation efforts are successful.

We have reviewed your letter dated 19 Feb 2021 requesting sampling of PFAS at LF030/031 prior to the completion of the PFAS RI. The ongoing treatment system was installed to address volatile and semi-volatile organic compounds as well as metals including iron and manganese. The Air Force follows the 2013 LF030/031 Record of Decision (ROD) and the site's approved long term monitoring and operations and maintenance plans.

In 2016, LF030/031 was sampled for PFAS in groundwater during site inspection activities. Three Vertical Aquifer Samples (VAS) were collected from LF030/031 as well as one effluent sample from the engineered wetlands treatment system (EWTS) associated with LF030/031. Concentrations of perfluorooctanoic acid (PFOA) + perfluorooctane sulfonate (PFOS) exceeded the USEPA Health Advisory (HA) and MDEQ Drinking Water Criteria (DWC) at the shallowest sample interval (21-24 feet below ground surface). However, the effluent water concentrations of PFAS did not exceed the USEPA HA or MDEQ DWC.

A limited groundwater sampling event was conducted 3 May 2021 to evaluate the presence or absence of PFOA and PFOS in groundwater upgradient and downgradient from LF030/031. PFOS was detected above the Michigan Part 201 generic cleanup criteria at one location at a maximum concentration of 18.3 ng/L, located upgradient of the treated groundwater

infiltration trenches. PFOA was detected above the Part 201 value at seven locations with a maximum concentration of 13.4 ng/L, located to the south or cross-gradient of the treated groundwater infiltration trenches.

The EWTS was not designed for the treatment of PFOS or PFOA, and based on the groundwater data, the LF030/31 pump and treat system purge wells could be diverting PFOS and PFOA through the EWTS to the infiltration galleries, thus further evaluation is planned as part of the ongoing RI and future evaluation of alternatives for remedial actions. The RI will collect VAS screening data to optimize the placement of permanent monitoring wells (MWs). Existing MWs will be sampled to determine if the LF030/031 infiltration trenches contribute to observed PFOS & PFOA concentrations in groundwater. Downgradient existing wells will be sampled to confirm previous results. New MWs will be installed to evaluate discharges into Van Etten Lake, confirm previous VAS results, and provide repeatable data. Soil samples will be collected for new MWs installed in source areas to further characterize vadose zone soil. Preliminary data does not indicate PFOS and PFOA are emanating from the EWTS infiltration galleries but this will be further evaluated when the relevant RI data has been collected.

In response to the 23 Mar 2021 letter, the Air Force is currently in the RI phase of the CERCLA process. The purpose of the RI is to define the extent of PFAS contamination in all affected media and provide data required to evaluate potential remedial alternatives in the feasibility study phase of the CERCLA process. As the Air Force moves through the RI process, if data collected identifies the need to implement additional IRAs, including the potential expansion of capture zones of existing pump and treat systems, the Air Force will consult with EGLE in the same fashion as we have with respect to the FT002 at Clark's Marsh and Ken Ratliff Memorial Park at Van Etten Lake IRAs. Available data does not indicate that groundwater containing PFAS is migrating between the current FT002 and Mission Street PTSs capture zone to present an imminent and substantial endangerment to public health or welfare. However, preliminary RI data indicates groundwater containing PFAS may be migrating into Van Etten Lake east of the Aircraft Alert Area so the Air Force has budgeted for an IRA as part of site CG410. Contract actions are currently underway for award by the end of FY22.

Additionally, in alignment with the EGLE suggestions, the Air Force has been evaluating novel treatment technology results. During the feasibility study following the RI, the Air Force will evaluate the latest and most viable PFAS treatment technologies for Wurtsmith. The Air Force does not know the extent to which pump and treat systems are ultimately used for the final comprehensive remedy selection. There are several PFAS technologies currently in development that are promising candidates for the former Wurtsmith AFB.

Please let me know if you have any questions or require additional information.

Sincerely,

STEPHEN G. TERMAATH, GS-15, DAF
Chief, BRAC Program Management Division