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GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
GAYLORD DISTRICT OFFICE



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October 27, 2021

VIA EMAIL

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SUBJECT: RE: Camp Grayling Army Airfield, MI; Time-Critical Removal Action;  
Filter Replacements

In November 2019, the Army National Guard issued an Action Memorandum setting forth a Time-Critical Removal Action (TCRA) that it would undertake at homes near the Grayling Army Airfield (GAAF), a portion of Camp Grayling Joint Maneuver Training Center (JMTC), located in Crawford County, Michigan for the installation of whole-house filtration systems. In March 2021, the Army National Guard issued an Action Memorandum setting forth an additional Time-Critical Removal Action that it would undertake at homes near the Cantonment and shoreline area along a portion of Lake Margrethe, a portion of Camp Grayling JMTC in Crawford County, Michigan, for the installation of whole-house filtration systems. Prior to these Action Memos, investigation revealed releases of perfluorooctanoic acid (PFOA) and perfluorooctanesulfonate (PFOS) at the GAAF and Cantonment portions of Camp Grayling JMTC and that this contamination was migrating offsite through groundwater. Sampling of nearby residential wells used for drinking water confirmed contamination of PFOA and PFOS at 14 different residences near the Cantonment of Camp Grayling JMTC and one residence near the GAAF of Camp Grayling JMTC<sup>1</sup> that exceeded the United States Environmental Protection Agency's Health Advisory Level of 70 parts per trillion (ppt) for PFOA and PFOS (singly or combined). (2019 Action Memo, p 4; 2021 Action Memo, p 4.) Army National Guard identified these exceedances as a "potential threat to human health." (2019 Action Memo, p 5; 2021 Action Memo, p 5.)

To address this threat, Army National Guard proposed to provide whole-house filtration systems for those residences that consented to installation of the systems. Army National Guard's Action Memos make clear that the TCRA's are intended to address the "[a]ctual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants" and "[a]ctual or potential contamination of drinking water supplies or sensitive ecosystems." (2019 Action Memo, p 5; 2021 Action Memo, p 5.) As stated by Army National Guard, the goal of the whole-house filtration systems is to prevent unacceptable risks to nearby residents. Specifically, Army National Guard indicated:

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<sup>1</sup> Recent data suggests the Army National Guard may be required to offer a whole-house filtration system to an additional home in this area.

The Removal Action Objective (RAO) of this TCRA is to prevent unacceptable risk to human health posed by PFOS/PFOA in groundwater above unacceptable risk levels . . . through installation of whole-house water filtration systems to affect property owners. [2019 Action Memo, p 6.]<sup>2</sup>

Testing completed by the Army National Guard has suggested that these whole-house filtration systems are a sufficient short-term remedy – tests of water taken from these homes after water was processed through the filter reveals the filters are reducing PFAS concentrations in drinking water below both Michigan’s drinking water cleanup criteria and below the federal Health Advisory Levels.<sup>3</sup> However, the whole-house filtration systems only work if replacement filters are installed when old filters that no longer function are replaced.

In its Action Memos, Army National Guard indicates it will install a whole-house filtration system for each affected property and will provide each property one replacement filter. Army National Guard expected each of the filters to last about one year. (2019 Action Memo, p 6; 2021 Action Memo, p 6.)

Current circumstances indicate that Army National Guard cannot achieve its Removal Action Objective of preventing risks to human health from its releases of PFOA/PFOS unless it provides and installs additional replacement filters to residences. First, a long-term, reliable source of drinking water will not be available to many of the impacted residences downgradient of GAAF or the Cantonment of Camp Grayling JMTC within one year after which time the used filters can no longer reliably remove PFOA and PFOS from the residential well water. Second, Army National Guard’s estimate that each filter would last one year is not accurate for properties that have above average water consumption, including multi-family residences. In fact, one multi-family residence, the River House domestic shelter, already expended its first set of filters within approximately eight months.

The Department of Defense’s (DoD’s) March 2020 PFAS Task Force Progress Report suggests that as a result of DoD’s short term response actions “no one...is drinking water above EPA’s HA level of 70 parts per trillion where DoD is the known source of PFOS and PFOA.”<sup>4</sup> However, without additional filters, these citizens are no longer protected from the PFOA/PFOS contamination for which Army National Guard is responsible. The cost of the filters for a household is not insignificant – each filter costs around \$500 – a cost which must not be pushed onto the impacted residents.

The DoD PFAS Task Force Report emphasizes the “importance of addressing PFAS in a consistent manner across the DoD.” Other DoD sites utilizing filtration systems as a TCRA

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<sup>2</sup> Similar language is found in the 2021 Action Memo, p 6.

<sup>3</sup> The results of sampling for the 2021 TCRA have not yet been received.

<sup>4</sup> Department of Defense, *Per- and Polyfluoroalkyl Substances (PFAS) Task Force Progress Report*, March 2020, p 6.

incorporate not only installation but also maintenance and monitoring of the systems.<sup>5</sup> Additionally, DoD has acknowledged the necessity of monitoring and maintenance of whole-house filtration systems, including filter replacement, to maintain the effectiveness of a removal action.<sup>6</sup> Specifically, where connection to a municipal water source was utilized as a TCRA (rather than installation of whole-house filtration system), DoD acknowledged that connection to municipal water is less costly because a necessary part of the TCRA that uses a whole-house filtration system is monitoring and maintenance, including filter replacement, to ensure the removal action is effective.<sup>7</sup>

The Army National Guard should not seek to re-allocate the burden of addressing its contamination to innocent households for something that Army National Guard has determined is necessary to prevent unacceptable risks to human health. Indeed, in multiple instances, Army National Guard has recognized the importance of providing ongoing operation and maintenance of whole-house filters at other sites.

Army National Guard has indicated that it is taking this action pursuant to 40 CFR 300.415(b), including (b)(3), which states that removal actions:

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<sup>5</sup> *Action Memorandum for a Time-Critical Removal Action Treatment of PFOS- and PFOA-Contaminated Water in Water Supply Wells Near Joint Base Cape Cod*, references throughout, Massachusetts, July 23, 2018; *Action Memorandum for a Time-Critical Removal Action of PFC-Contaminated Water at Moose Creek, Alaska by Eielson Air Force Base, Alaska*, p 6, November 18, 2015 (indicating that planned actions included installation of granular activated carbon water treatments systems for private drinking water wells and “conduct[ing] long-term **operations and maintenance** of the treatment systems...”); *Time Critical Removal Action Memorandum for Removal of Soils Containing Perfluorooctane Sulfonate Exceeding Project Screening Levels Naval Air Station Willow Grove, PA*, p 5, June 8, 2018 (“The Navy has an Environmental Services Cooperative Agreement (ESCA) with the Horsham Water and Sewer Authority (HWSA) to install **and maintain** treatment for PFOA and PFOS above the HA levels on impacted municipal wells.”).

<sup>6</sup> See *PFAS Task Force Progress Report*, *supra*, p 7 (discussing the need for DoD to develop guidance for disposal methods for media containing PFAS, including filters).

<sup>7</sup> “Alternative 3 [connection to city water] was selected as the alternative that provides for a permanent supply of drinking water at the off-installation property, with no post-removal site controls or periodic operations and maintenance.” *Action Memorandum for Private Drinking Water*, Naval Air Station Oceana, Virginia Beach, Virginia, p 5, April 23, 2020. In discussing the rejected alternative of providing each private property with a granulated activated carbon system, the action memorandum is clear that it would be **necessary** to monitor the system and replace the granular activated carbon (the filter material) within the system to maintain effective treatment. *Id.* at 4-2.

shall, as appropriate, begin as soon as possible to abate, prevent, minimize, stabilize, mitigate, or eliminate the threat to public health or welfare of the United States or the environment. [40 CFR 300.415(b)(3).]

In order to assure the effectiveness of the Time-Critical Removal Actions that Army National Guard has determined are necessary to address a threat to human health; to achieve its own Removal Action Objectives; and to ensure it is following 40 CFR 300.415(b)(3), Army National Guard must commit to provision and installation of filters for the residences for which it has provided whole-house filtration systems until a final remedy is implemented for the facility that mitigates the risks to these residences from PFOA/PFOS in their drinking water or another source of drinking water is provided to these residences.

The State of Michigan is willing to help Army National Guard coordinate to determine the best path forward to assuring the effectiveness of its removal action. If the Army National Guard has questions regarding this letter or wishes to set up a meeting, please contact Christiaan Bon, Project Manager, at 989-370-9624 or via email at BonC@michigan.gov; Sesha Kallakuri, Toxicologist, at 517-331-2792; KallakuriS@michigan.gov; or you may contact me at the telephone number listed below.

Sincerely,



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