



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
LANSING



LIESL EICHLER CLARK
DIRECTOR

May 16, 2022

Permittee
Site Name
Permittee Address 1
Permittee Address 2
Permittee City, Permittee State Permittee Zip Code

Dear Permittee:

SUBJECT: Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) and the Land Application of Biosolids – Notice of Modification of Approved Residuals Management Program
Designated Name: Site Name
Permit No. Permit Number

On April 5, 2021, Site Name was provided notification that the Department of Environment, Great Lakes, and Energy (EGLE), Water Resources Division (WRD), modified the facility’s Residuals Management Program (RMP) to incorporate conditions of the *Land Application of Biosolids Containing PFAS Interim Strategy (2021)*. With this letter, EGLE is providing notification of an update to the *Land Application of Biosolids Containing PFAS* (hereafter *2022 Interim Strategy*) and is hereby modifying the approved RMP for your facility by incorporating the conditions contained in the updated [2022 Interim Strategy](#). Specifically, facilities that plan to land apply biosolids on or after July 1, 2022, may have additional requirements concerning submission and evaluation of results, potential limitations on land application, and communication of the results to landowners/farmers as provided herein.

The implementation of these updated measures is part of a strategy to mitigate risk to public health and the environment from potential adverse effects of an emerging pollutant, PFAS. These additional requirements are considered a modification to the approved RMP and are made in accordance with provisions outlined within Michigan’s Part 24 Administrative Rules, Land Application of Biosolids, promulgated pursuant to Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), specifically Rule 2404(1), and language contained within existing discharge permits.

The *2022 Interim Strategy* can be found by going to Michigan.gov/Biosolids; then under the *Information* section, select “Michigan Biosolids PFAS-related information and links,” then under the *Interim Strategy – Land Application of Biosolids Containing PFAS* section, select “Interim Strategy – Land Application of Biosolids Containing PFAS (2022).”

As new information comes to light, EGLE will continue to adapt to evolving science and make adjustments to the *Interim Strategy*, as appropriate, moving forward. Any future revisions to the *Interim Strategy* are to be presumed a modification to your approved RMP. The WRD will provide written notification of the updates to the *Interim Strategy* accordingly.

Background information about PFAS, as well as information about Michigan's efforts regarding this issue, may be found in the *2021 Interim Strategy* and at Michigan.gov/PFASLandApplication.

Updated Interim Strategy Actions

As detailed in the *2022 Interim Strategy*, the WRD is revising the following actions for Wastewater Treatment Plants (WWTPs) conducting land application:

- **PFAS Biosolids Sampling Frequency** – The required sampling frequency is determined by the NPDES Permit Major/Minor classification, whether an Industrial Pretreatment Program (IPP) is required, the type of Groundwater Permit, and previously-submitted Interim Strategy Biosolids PFAS results, as described below.
- **Winter Land Application** – If land application is requested by the WWTP to be completed between December 21 – March 21, WWTPs shall conduct PFAS sampling based on guidance from WRD staff.
- **Industrially-Impacted Threshold** – Biosolids with a Perfluorooctane Sulfonate (PFOS) concentration of 125 parts per billion or higher are deemed industrially impacted and cannot be land applied.

All Required Actions

As detailed in the *2022 Interim Strategy*, the WRD is requiring continued implementation of the following actions for all WWTPs with land application occurring in the State of Michigan:

- **PFAS Biosolids Sampling** – A representative sample of biosolids must be collected and analyzed for PFAS prior to land application. All samples must be submitted to the WRD via MiWaters at least two weeks prior to land application.
- **PFAS Source Identification and Reduction** – Source identification and reduction efforts may be required based on PFAS analytical results of biosolids and/or WWTP effluent.

- **Landowners and Farmers Communication** – WWTPs shall provide PFAS analytical results and additional information specific to PFAS and biosolids in Michigan prior to land application of biosolids.

These general requirements are described in more detail below.

Biosolids Sampling, Analysis, Frequency, Notification, and Evaluation Requirements

Sampling: Preapplication sampling of biosolids by WWTPs is key to evaluating land application issues related to PFAS. Importantly, it will help assure industrially-impacted biosolids are not land applied. One representative biosolids sample shall be collected prior to land application. Biosolids and sludge PFAS sampling guidance can be found by going to Michigan.gov/PFASResponse; then under the *Testing* section, select “Sampling Guidance,” then under the *For technical staff* section, select “Biosolids and Sludge.”

Analysis: Currently, there are no U.S. Environmental Protection Agency (U.S. EPA)-approved methods for PFAS analysis of sludge and biosolids. DRAFT EPA Method 1633 (an isotope dilution method) is currently undergoing multi-laboratory validation as part of the Clean Water Act method approval process. When a final PFAS analytical method for wastewater and solids is published in Title 40 of the Code of Federal Regulations (40 CFR), Part 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants, this method shall be required for sampling conducted under your Permit. *PFAS results shall include the 28 analytes previously used on the Michigan PFAS Action Response Team PFAS Minimum Laboratory Analyte List*, which is enclosed for your reference. Be sure to choose a laboratory experienced in PFAS biosolids analysis that has a usual reporting level of 2 micrograms per kilogram ($\mu\text{g}/\text{kg}$) for PFOS. Also note that PFAS analyses typically have a long turnaround time, up to four weeks, depending on the laboratory chosen.

All biosolids and sludge samples, including those with low solids content, should be analyzed as solids and must be reported on a dry weight basis. The dry weight analysis (i.e., moisture content) must be performed on the samples as received, not on centrifuged solids when centrifugation is performed. The entire sample is recommended to be extracted and analyzed, even if the solids are separated by centrifugation as part of the sample preparation.

Sampling Frequency and Notification:

- **All NPDES Permit U.S. EPA Major WWTPs, all WWTPs with required IPPs, and all 2218 Groundwater Permit WWTPs** that intend to land apply biosolids in Michigan shall, prior to land application, collect and analyze a minimum of one representative biosolids sample for PFAS in each year they intend to land apply.

All other WWTPs with a previously submitted Interim Strategy PFOS result above 20 parts per billion (ppb) shall collect and analyze a minimum of one representative biosolids sample for PFAS in each year they intend to land apply. All results of PFAS biosolids analysis and associated laboratory reports shall be submitted a minimum of two weeks prior to initial land application each year via the MiWaters schedule, *Biosolids PFAS Monitoring Report*, or as otherwise required by WRD staff.

- **All other WWTPs** that intend to land apply biosolids in Michigan shall collect a minimum of one representative biosolids sample analyzed for PFAS prior to their initial land application. Thereafter, upon permit reissuance, WWTPs shall collect one representative biosolids sample analyzed for PFAS prior to the initial land application that occurs within the permit cycle. If a WWTP has a permit extended past five years since the previous biosolids PFAS sample was collected, a new sample is required (for a minimum of one sample every five years if land application occurs). WWTPs under this sampling frequency shall conduct the biosolids PFAS sampling in the same year in which they intend to land apply in order to have the most representative sample. One-time RMP approvals, such as land application of biosolids removed from Wastewater Stabilization Lagoons (WWSL), shall include a minimum of one representative sample for PFAS analysis. All results of PFAS biosolids analysis and associated laboratory reports shall be submitted a minimum of two weeks prior to initial land application following permit reissuance via the MiWaters schedule, *Biosolids PFAS Monitoring Report*, or as otherwise required by WRD staff.

Evaluation of Results: PFAS results will be evaluated consistent with the updated *2022 Interim Strategy*. Please evaluate the results of your residuals and provide notification to the WRD and other parties as described below.

- **WWTPs with PFOS at or above 125 µg/kg (ppb) in their residuals** cannot land apply and are required to do all the following:
 - Immediately notify WRD's Biosolids Program staff of PFOS results via a telephone call and submittal via MiWaters.
 - Sample the WWTP effluent.
 - Investigate potential sources to develop a source reduction program if they have not already done so under the IPP PFAS Initiative.
 - Arrange for alternative treatment and/or disposal of solids.
- **WWTPs with PFOS at or above 50 µg/kg, but below 125 µg/kg, in their residuals** require a risk mitigation strategy prior to land application and are required to do all the following:
 - Immediately notify WRD's Biosolids Program staff of PFOS results via a telephone call and submittal via MiWaters.

- Sample the WWTP effluent.
 - Investigate potential sources to develop a source reduction program if they have not already done so under the IPP PFAS Initiative.
 - Reduce land application rates to no more than 1.5 dry tons per acre or submit an alternative risk mitigation strategy for approval by WRD staff to reduce overall loading to the application site(s). Alternative risk mitigation strategies must be submitted to the WRD's Biosolids Program staff to provide adequate time to process (minimum of 14 days but preferably 30 days) prior to the planned land application date, via the MiWaters schedule, *Biosolids Program – Alternative Risk Mitigation Strategy Report*.
 - Communicate with landowners/farmers prior to land application.
- **WWTPs with PFOS below 50 µg/kg, but above 20 µg/kg, in their residuals** may land apply after submittal of results via MiWaters and are required to do all the following:
 - Submit results via MiWaters.
 - EGLE recommends investigating sources and sampling the WWTP effluent for PFAS.
 - If a WWTP on the permit cycle (five year) sampling frequency has a PFOS result above 20 µg/kg, the WWTP will be required to sample each year the WWTP intends to land apply, prior to land application.
 - Communicate with landowners/farmers prior to land application.
 - **WWTPs with PFOS below 20 µg/kg in their residuals** may land apply after submittal of results via MiWaters and are required to do all the following:
 - Submit results via MiWaters.
 - Communicate with landowners/farmers prior to land application.

Additional requirements, including sampling for other PFAS analytes, sampling frequency, limits, and notification requirements, may be amended as new information becomes available. In order to prepare for full implementation, the WRD recommends that these same protocols be implemented prior to that time, but they are not required.

Communication to Landowners/Farmers

Prior to land application at a site, provide the PFOS analytical results to the landowner and farmer (if different), along with WRD contact information and additional information sources related to PFAS, such as Landowners/Farmers PFAS Resources available by going to Michigan.gov/Biosolids, then under the *Information* section select "Michigan Biosolids PFAS-Related information and links, and then under the *Interim Strategy – Land Application of Biosolids Containing PFAS* section select "Landowner/Farmer Notification Template Letter."

May 16, 2022

More Information

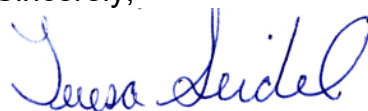
If you have questions about biosolids sampling procedures for PFAS or this effort, please contact your District Biosolids Program staff. Contact information can be found by going to Michigan.gov/Biosolids; then under the *Contact* section select “Biosolids Program Staff Map.”

If you have questions about PFAS and WWTPs, please contact the Statewide Biosolids PFAS Contact or your Regional IPP PFAS Specialist. Contact information can be found at Michigan.gov/IPP; under the *PFAS* section select “IPP PFAS Initiative,” and then under the *Strategy and Implementation* section select “IPP PFAS Staff Map.”

Please be aware that compliance with the requirements outlined in this letter does not constitute a release or waiver of liability for compliance with your Permit, Permit Application, or Part 31, Water Resources Protection, of the NREPA.

Thank you for your cooperation in this matter and for doing your part to protect Michigan’s public health and environment from these emerging pollutants.

Sincerely,



Teresa Seidel, Director
Water Resources Division

Enclosure

cc: **Biosolids Contact**

Jon Russell, EGLE

Stephanie Kammer, EGLE

Michael Person, EGLE

Biosolids Program Staff, EGLE