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GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
LANSING DISTRICT OFFICE



C. HEIDI GREETHER  
DIRECTOR

February 20, 2018

IPP Community Representative  
IPP Community address  
IPP Community City, State ZIP

Dear IPP Representative:

**SUBJECT: PFAS Source Evaluation and Reduction Requirements**

You may have heard news recently about perfluoroalkyl and polyfluoroalkyl substances (PFAS, also referred to as PFCs), especially the specific chemicals PFOS (perfluorooctane sulfonate) and PFOA (perfluorooctanoic acid). The Department of Environmental Quality (DEQ), Water Resources Division (WRD), is requiring Wastewater Treatment Plants (WWTP) with Industrial Pretreatment Programs (IPPs) to evaluate potential sources of PFAS, investigate probable sources, reduce/eliminate the sources found, and take other actions to protect surface water quality as needed.

### **Background**

PFAS are a group of manmade chemicals that have been widely used in industry and consumer products since the 1950s. They are most often associated with nonstick coatings; plating operations; firefighting foams; and stain- and water-resistant treatments for clothing, furniture, and carpeting.

Unfortunately, PFAS have been found to have adverse effects in laboratory animals and humans when ingested. PFAS are also very persistent in the environment and can bioaccumulate in animal and human tissue. The chemical PFOS in particular, due to its persistence and toxicity, has led to fish consumption advisories for some Michigan rivers. The applicable Water Quality Standard (WQS) (Michigan Rule 57 value) for PFOS is 12 ng/l (nanograms per liter or parts per trillion) for streams that are not used for drinking water and 11 ng/l for those that are used as a drinking water source. The applicable WQS for PFOA is 12,000 ng/l for lakes and streams that are not used for drinking water and 420 ng/l for those used as a drinking water source.

With some exceptions for limited industrial uses, chemical manufacturers in the United States voluntarily stopped making PFOA and PFOS, but they are still manufactured in other locations around the globe and may be imported through such consumer goods as carpets, paper and

packaging, coatings, etc. It is still legal to use existing stocks of PFOS-containing firefighting foams (Class B) in the US. These persistent chemicals may also be found in factories years after they were used.

The DEQ, WRD, has been conducting ambient stream monitoring of PFAS, as well as fish contaminant monitoring for several years. These efforts have led to more targeted point source monitoring in areas where ambient monitoring showed elevated levels of PFAS in surface waters. Recently, elevated PFOS levels in the Flint River led to point source sampling at a WWTP and then to an industrial user (a metal plater) that was found to be the primary source. WRD staff have been working with the WWTP and industrial user to identify and eliminate the source of the PFOS and address the disposal of accumulated biosolids contaminated with PFOS.

The DEQ is investigating this issue on a statewide, multimedia basis. The WRD is collecting PFAS effluent data from those WWTPs with the potential to discharge PFOS and PFOA as part of its routine monitoring and those that discharge to impacted water bodies. In addition to the DEQ's efforts, we are requiring you to evaluate potential sources within your sewer system.

### Required Actions

As a WWTP with a required IPP, you are hereby required to take the following actions to ensure that your IPP is prohibiting discharges of PFOS or PFOA that would either (1) cause your WWTP to fail to comply with the requirements of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) and/or (2) restrict the management of your biosolids. These actions are required under Part I.C.1.f.1 and Part I.C.1.f.2 of your National Pollutant Discharge Elimination System (NPDES) Permit, respectively. For item (1) above, your WWTP would be failing to comply with the NREPA if it is passing through PFOS and/or PFOA at concentrations greater than the applicable WQS.

Please consult your Regional IPP PFAS Specialist regarding any questions that you may have about any steps in the process described below. Staff maps may be found at [www.michigan.gov/IPP](http://www.michigan.gov/IPP).

1. **Conduct Initial Screening:** Conduct a review of your industrial users to identify industrial users that may be potential significant sources of PFOS and PFOA. The following types of industrial users may be potential significant sources of PFOS and PFOA:
  - metal finishers that are using, or have used, PFAS-containing wetting agents, demisters, defoamers, or surfactants in their plating tanks (generally platers that use, or have used, hexavalent chromium)

- landfills that have accepted waste from metal finishers using hexavalent chromium or other industries associated with PFAS use (e.g., tanneries, fabric/leather treaters, paper manufacturers)
- contaminated sites discharging wastewater potentially containing PFAS, including those associated with firefighting foam, certain metal finishing wastes, or water- or stain-repellent treatment chemicals
- centralized waste treatment facilities that accept any of the above wastewaters
- any other industrial users that use, or have used, the PFAS-containing chemicals discussed above.

Resources that describe potential sources of PFAS may be found on the Michigan.gov/IPP Web page.

2. **Develop a Monitoring Plan:** Once you have developed a list of *potential* PFAS sources, you will need to evaluate each one to determine whether it is a *probable* source of PFAS and develop a strategy for sampling these probable sources. You will likely need to review records and interview your contacts to find out which sources use/have used or accept/have accepted PFAS-containing materials or wastes. Please note that since these chemicals are persistent and heavy, they may settle at the bottoms of tanks and pits and be present long after PFAS-containing chemicals were used. Please document your evaluation so that you may submit your results as part of the Interim Report in Item 6 below.

Once you have a list of probable sources, develop a plan to monitor them. Your plan will most likely include your commitment to monitor all your probable sources and the sampling protocol that you will follow. If you plan to monitor all of your probable sources by June 29, 2018, no DEQ, WRD, preapproval of your plan is required. In this case, you may submit your plan along with the results with your Interim Report (see Item 6 below). If you would like to pursue an alternative sampling strategy, including an extension of the due dates, propose this plan to the DEQ, WRD, for approval by May 1, 2018. For example, you may be able to eliminate several probable sources located near one another with one downstream collection system sample. If you have many probable sources, you may also need more time to conduct monitoring. Please contact your Regional IPP PFAS Specialist if you wish to propose an alternative sampling strategy, including an extension of the time needed, for approval. All alternative monitoring plans shall be submitted via MiWaters as an *IPP Unscheduled Submission for Approval*.

3. **Perform Source Monitoring:** Sample the discharge from each probable source identified in your monitoring plan for PFAS, using grab samples, and following the recommended sampling protocol to prevent cross-contamination. Although PFOS and PFOA are the primary pollutants of concern at this time, the laboratory analysis will include concentrations of a number of PFAS. As our understanding of these emerging pollutants progresses, this information will likely be useful. Currently, there are no

United States Environmental Protection Agency (USEPA)-approved methods for PFAS analysis of wastewater or biosolids. The USEPA is currently proceeding with external validation of ASTM D7979, although USEPA Method 537 (modified) is commonly used and is acceptable for analysis until ASTM D7979 is approved. A modification of the USEPA Method 537 may also be approved for wastewater and biosolids at some point. Once there is an approved method, only approved method(s) may be used for all NPDES and IPP monitoring. Regardless of the method used, please be sure to use a laboratory with good quality assurance/quality control practices. We understand the costs associated with this effort, but it is necessary due to the potential impacts on human health and the impairment of fisheries. Recommended sampling protocol will be posted to the DEQ's IPP Web page at [www.michigan.gov/IPP](http://www.michigan.gov/IPP) when it becomes available.

4. **Reduce/Eliminate PFOS and PFOA Sources:** If significant sources of PFOS and/or PFOA are found through source monitoring (Item 3 above), you are required to follow-up with the source(s) to reduce and/or eliminate these pollutants in their effluent. Note that for PFOS, loading is important since it bioaccumulates. Source reduction and elimination efforts may include product substitution, operational controls, pretreatment, and clean-up of historical contamination.
5. **Evaluate Impacts:** If you find sources discharging PFOS and/or PFOA to your WWTP from this monitoring, you are required to monitor your WWTP effluent for PFAS. Please see the discussion of PFAS sampling and analysis methods in Item 3 of this letter. If effluent results are found to be greater than the applicable WQS, you are required to submit the data to the DEQ, WRD, within ten (10) days via MiWaters (as an NPDES Unscheduled Permit Required Report schedule) and consult with your Regional IPP PFAS Specialist to discuss follow-up actions, which may include additional monitoring.
6. **Submit an Interim Report:** Summarize the information, data collected, and evaluation conducted to-date for Items 1 through 5 above for submittal to the DEQ, WRD, via MiWaters by **June 29, 2018**. We understand that source reduction work may be ongoing. A specific schedule and form will be available in MiWaters for submittal of this information.
7. **Continue Source Reduction and Monitoring:** Unless no PFAS sources were found, continue to reduce and eliminate sources of PFAS to your WWTP and conduct follow-up monitoring of sources and at your WWTP as needed. Depending on the information submitted in your Interim Report, the DEQ, WRD, may require additional monitoring or specific actions.
8. **Submit a Summary Report:** Unless you were sent a letter from the DEQ, WRD, requiring no further action in response to your Interim Report submittal, please submit the results of any additional monitoring data (WWTP effluent, biosolids, or source monitoring) and a summary of PFOS and/or PFOA source reduction and/or elimination efforts to the DEQ, WRD, by **October 26, 2018**. A specific schedule and form will be available in MiWaters for submittal of this information. IPP staff will review the information reported and will contact you about any required follow-up actions.

**More Information**

The DEQ, WRD, will be holding regional meetings to discuss the technical aspects of the IPP PFAS Initiative, including a description of expectations for the initial screening, monitoring plans, probable source monitoring, and evaluation, as well as information about sampling and analysis protocol and source reduction. We strongly urge you to send one or more IPP professionals to one of these meetings so that you understand what the WRD is requiring and help you make the best use of local resources. The meetings are planned for March 2018 as listed below, and are also posted on the [www.michigan.gov/IPP](http://www.michigan.gov/IPP) Web page. Invitations will also be sent via electronic mail.

March 12 – 9:30 AM-12:00 PM  
Schoolcraft College – Vista Tech Center, Room – VT500D  
18600 Haggerty Road  
Livonia, Michigan 48152

March 14 – 9:30 AM-12:00 PM  
Grand Valley State University – LV Eberhard Center, Room EC 215-AB  
301 West Fulton  
Grand Rapids, Michigan 49504

March 27 – 9:30 AM-12:00 PM  
Mt. Pleasant Comfort Inn and Suites, Room Break-C  
2424 South Mission  
Mount Pleasant, Michigan 48858

To find out more about PFAS, including typical sources, go to <http://www.michigan.gov/pfasresponse> and scroll down for informational links. This information is also available on the [www.michigan.gov/IPP](http://www.michigan.gov/IPP) Web page.

Please be aware that compliance with the requests outlined in this letter does not constitute a release or waiver of liability for compliance with your NPDES permit, your NPDES permit application, or Part 31 of the NREPA.

Thank you for your cooperation in this matter. If you have questions or comments about this effort, please contact your Regional IPP PFAS Specialist.

Sincerely,



Teresa Seidel, Director  
Water Resources Division

cc: Municipal Clerk  
District IPP Coordinator (electronic)