

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

INTEROFFICE COMMUNICATION

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SUBJECT: Addressing PFAS in NPDES Regulated Discharges: A Comparison of Michigan's Compliance and Permitting Strategies and the United States Environmental Protection Agency Guidance

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On December 6, 2022, the United States Environmental Protection Agency (USEPA), Office of Water, issued a memorandum ([press release](#)) that provides USEPA's guidance to "state-authorized permitting authorities to leverage the National Pollutant Discharge Elimination System (NPDES) Program to restrict the discharge of per- and polyfluoroalkyl substances (PFAS) at their sources" and updates the April 28, 2022, guidance to USEPA Regions. The USEPA granted Michigan the authority to administer the NPDES program in October of 1973. The authority for NPDES permit issuance rests with the Department of Environment, Great Lakes, and Energy (EGLE). EGLE's Water Resources Division (WRD) has developed compliance and permitting strategies to address PFAS discharges from NPDES permitted facilities within Michigan. In contrast to the USEPA, EGLE does not act as the control authority, but rather the approval authority under the Industrial Pretreatment Program (IPP). The municipality for the Publicly Owned Treatment Works (POTW) serves as the control authority and is responsible for administering an EGLE-approved IPP.

For more information, see the [Municipal NPDES Permitting Strategy for PFOS \[perfluorooctane sulfonate\] and PFOA \[perfluorooctanoic acid\]](#) and the [Compliance Strategy for Addressing PFOS and PFOA from Industrial Direct and Industrial Storm Water Discharges](#).

The following tables compares the actions outlined in the USEPA memorandum and those being taken by EGLE's WRD.

Table 1. Industrial Direct and Industrial Storm Water Dischargers

Actions	USEPA Memorandum December 5, 2022	EGLE Current Strategy as of October 2022	Recommended Changes to WRD Strategy – fiscal year (FY) 2024
Applicability	Industry categories known/suspected to discharge PFAS: Organic chemicals, plastics & synthetic fibers (OCPSF); metal finishing; electroplating; electric and electronic components; landfills; pulp, paper & paperboard; leather tanning & finishing; plastics molding & forming; textile mills; paint formulating, and airports. USEPA indicates other categories should be considered*. PFAS information may be requested as part of permitting process	Similar but not limited to the USEPA Industry Categories – Applies to any permitted industrial facility with a direct discharge and or Industrial Storm Water (ISW) discharge where PFAS chemicals were known or suspected to have been used and caused a discharge of PFAS. PFAS information page included in NPDES permit application and PFAS questionnaire used at site inspections. Identified facilities to date include metal finishers, airports and military installations, landfills, chemical manufacturers, petroleum refineries, bulk fuel transfer facilities, paper/pulp manufacturer, and automotive manufacturing facilities	None
Monitoring and Reporting Control Document	Permit Conditions	Voluntary Administrative Consent Order (ACO) or Permit Condition in limited instances	None
Monitoring and Reporting Method	In the absence of a final method, use draft USEPA 1633 analytical method. Draft analytical method USEPA 1621 used in conjunction with 1633, if appropriate.	Until there is an approved final method; Modified 537 with Isotope dilution, ASTM D7979, or draft method USEPA 1633 may be used	None
Monitoring and Reporting Parameters	40 PFAS parameters detectable by draft USEPA 1633 analytical method	PFOS, PFOA, & perfluorobutanesulfonic acid (PFBS) required.	Same as current status plus require minimum Michigan 28 analytes to be

Actions	USEPA Memorandum December 5, 2022	EGLE Current Strategy as of October 2022	Recommended Changes to WRD Strategy – fiscal year (FY) 2024
		Recommend monitoring of Michigan 28 PFAS parameters as a minimum; *Will move to 40 PFAS parameters once 1633 approved under 40 CFR 136	submitted as part of required annual status reports
Monitoring and Reporting Monitoring Frequency	At least quarterly to obtain adequate data to evaluate PFAS	Short-Term Wastewater/Storm Water Characterization Studies required at prioritized facilities. Once complete, site specific for facilities with exceedances of applicable water quality-based effluent limits (WQBEL): Typically, monthly (direct discharge) or quarterly (industrial storm water)	None
Monitoring and Reporting Industrial Direct Reporting	Discharge Monitoring Report (DMR) for 40 analytes.	Discharge Monitoring Report for PFOS, PFOA, and PFBS, as applicable and recommend submittal of Michigan 28 PFAS parameters with lab reports via MiEnviro Portal	Same as current strategy plus require minimum Michigan 28 analytes to be submitted on PFAS Non-POTW Effluent Monitoring Report
Monitoring and Reporting NPDES Permit Limits	Apply established WQBELs and/or technology-based effluent limitations (TBELS)	Apply established WQBELs and/or TBELs if treatment in place via ACOs with schedule	None
Source Reduction Industrial User	<ul style="list-style-type: none"> • Permits to incorporate Best Management Plans (BMPs) based on PFAS pollution prevention/source reduction evaluation and reporting • Site specific TBELs for non-effluent 	Corrective Action Plans to address exceedance required under ACOs. Includes source evaluation and reduction strategies/BMPs. ACOs to establish compliance program with timeline for achieving applicable WQBELs/TBELs	None

Actions	USEPA Memorandum December 5, 2022	EGLE Current Strategy as of October 2022	Recommended Changes to WRD Strategy – fiscal year (FY) 2024
	limitation guidelines facilities <ul style="list-style-type: none"> • WQBELs derived from water quality standards 		
Industrial Storm water Permits	Only applicable to Storm Water Permits where Aqueous Film Forming Foam (AFFF) was used for firefighting: BMPs included in storm water permits: <ul style="list-style-type: none"> • Prohibits use of AFFF other than for firefighting • Eliminate PFOA/PFOS AFFF Requires immediate clean-up in all situations where AFFF used	<ul style="list-style-type: none"> • Not limited to storm water facilities where AFFF used • Prioritize facilities based on potential use of PFAS chemicals at facility either as part of the industrial process or related to AFFF use/storage/training • Require Short-term storm water characterization studies • Corrective Action Plans to address exceedance required under ACOs. Includes source evaluation and reduction strategies/BMPs 	Same as current strategy plus include general permit/ACO conditions concerning use, clean up and reporting of AFFF at Industrial facilities.
NPDES Permit Public Notice	Alert downstream public water systems (PWS) of permits with PFAS conditions	Post on MiEnviro Portal; email notification to public who've signed up	EGLE to provide public notice to downstream PWS of permits issued with PFAS limits

*Centralized Waste Treatment facilities may receive wastes from the industries listed above and should be considered for monitoring. In addition, categories of dischargers that do not meet the applicability criteria of any existing Effluent Limit Guideline; for instance, remediation sites, chemical manufacturing not covered by OCPSF, and military bases.

Table 2. Publicly Owned Treatment Works

Actions	USEPA Memorandum December 5, 2022	EGLE (~ FY 2023)	Recommended Changes to WRD Strategy – FY 2024
Applicability	All POTWs and industrial users (IU) in categories known or suspected to discharge PFAS*	All POTWs	None
Monitoring and Reporting Method	Draft analytical method USEPA 1633 <i>recommended</i> . Draft analytical method USEPA 1621 used in conjunction with 1633, if appropriate	Until there is an approved final method; Modified 537 with Isotope dilution, ASTM D7979, or draft method USEPA 1633 may be used	None
Monitoring and Reporting Parameters	40 PFAS parameters detectable by draft method 1633	Recommend monitoring of Michigan 28 PFAS parameters as a minimum; PFOS, PFOA, and PFBS required. *Will move to 40 PFAS parameters once 1633 approved under 40 CFR 136	Same as current strategy plus require minimum Michigan 28 PFAS parameters to be submitted as part of required semi-annual or annual status reports
Monitoring and Reporting POTW Influent	At least quarterly	Recommended	None
Monitoring and Reporting POTW Effluent	At least quarterly	IPP Initiative and Permit Strategy: <ul style="list-style-type: none"> • Bin 3 (PFOS sources & POTW effluent > Water Quality Values [WQV]): monthly • Bin 2 (PFOS sources & POTW effluent < WQV): quarterly 	None

Actions	USEPA Memorandum December 5, 2022	EGLE (~ FY 2023)	Recommended Changes to WRD Strategy – FY 2024
		<ul style="list-style-type: none"> • Bin 1 (no PFOS sources) without Reasonable Potential (RP)**: 4x/ 5-year permit cycle • Bin 1 (no PFOS source) with RP: 3x annual • Non-IPP USEPA Major without RP: 4x/5-year permit cycle • Non-IPP USEPA Major with RP: 3x annual • Non IPP minor with elevated PFOS biosolids level and/or elevated effluent: 3x annual 	
Monitoring and Reporting POTW Biosolids	At least Quarterly	<ul style="list-style-type: none"> • 1x/year for USEPA Majors, IPPs, & 2218 Groundwater permittees • 1x/permit cycle for everyone else unless PFOS concentration is greater than 20 parts per billion – then 1x/year 	None
Monitoring and Reporting Industrial User Effluent	Quarterly	Recommend same frequency as WWTP where IU has been identified as a source, sometimes more to monitor pretreatment effectiveness	None
Monitoring and	DMR for 40 analytes	<ul style="list-style-type: none"> • Discharge Monitoring Report for analytes 	Same as current strategy plus

Actions	USEPA Memorandum December 5, 2022	EGLE (~ FY 2023)	Recommended Changes to WRD Strategy – FY 2024
Reporting POTW Reporting		listed on NPDES permit Effluents Limits page (PFOS, PFOA, PFBS if applicable) <ul style="list-style-type: none"> Report via MiEnviro Portal: PFAS POTW Effluent Monitoring Report allows reporting of 40 analytes + lab report. Reporting of Michigan 28 PFAS parameters requested, required for PFOS/PFOA/PFBS 	update permits to also require reporting of Michigan 28 PFAS parameters via PFAS POTW Effluent Monitoring Report
Monitoring and Reporting Industrial User Reporting	Input into Integrated Compliance Information System (ICIS) with linkage to receiving WWTP	Report via MiEnviro Portal: POTW submits IPP PFAS Status Reports with Excel spreadsheet of results for 5 PFAS parameters + lab reports	Same as current strategy plus update Excel Spreadsheet to also require reporting of all PFAS analyzed
Monitoring and Reporting NPDES Permit Limits	No recommendation	POTW with IPP: Permit limits for PFOS, PFOA, and/or PFBS with RP to exceed WQBEL** effective within permit cycle	Same as existing strategy plus POTW without IPP - Report only for PFOS, PFOA, and/or PFBS with RP to exceed WQBEL**
Source Reduction POTW	<ul style="list-style-type: none"> NPDES Permits should contain IU PFAS Inventory, quarterly IU PFAS monitoring, Local Limits for IPPs Pollution prevention & 	<ul style="list-style-type: none"> IPP PFAS Initiative implemented at all POTWs with approved IPPs in 2018 and has since been completed. This included an IU Inventory Since October 2021: As permits are 	None

Actions	USEPA Memorandum December 5, 2022	EGLE (~ FY 2023)	Recommended Changes to WRD Strategy – FY 2024
	product substitution for non-IPPs	reissued, local limits and Corrective Action Plan, if applicable, for Bin 3s (PFOS sources & POTW effluent > WQV) and Bin 2s (PFOS sources & POTW effluent < WQV) with RP <ul style="list-style-type: none"> • Pollutant Minimization Plan language (triggered) for Bin 2s without RP, all Bin 1s (no PFOS sources), and non-IPP facilities with PFAS monitoring requirement • Source/collection system investigations and effluent monitoring required at non-IPP facilities with elevated biosolids and/or effluent 	
NPDES Permit Public Notice	Alert downstream PWS of permits with PFAS conditions	Post on MiEnviro Portal; email notification to public who've signed up	EGLE to provide public notice to downstream PWS of permits issued with PFAS limits.
Industrial User Permits	Develop Industrial User BMPs, or local limits, or encourage pollution prevention	Local Limits for PFOS, PFOA & PFBS required if POTW has RP greater than WQBEL; recommended otherwise. Local limits would be applied to IU permits for PFOS/PFOA/PFBS sources. PFAS monitoring at IUs found to	None

Actions	USEPA Memorandum December 5, 2022	EGLE (~ FY 2023)	Recommended Changes to WRD Strategy – FY 2024
		be sources recommended quarterly	

* Categories as identified in the USEPA PFAS Strategic Roadmap including: organic chemicals, plastics & synthetic fibers (OCPSF); metal finishing; electroplating; electric and electronic components; landfills; pulp, paper & paperboard; leather tanning & finishing; plastics molding & forming; textile mills; paint formulating, and airports. Additional categories such as Centralized Waste Treatment facilities, remediation sites, chemical manufacturing not covered by OCPSF, and military bases should be considered for monitoring.

** EGLE is required to develop water quality-based effluent limits (WQBELs) for toxic pollutants. These WQBELs are required to be incorporated into NPDES permits where toxic substances are or may be discharged into surface waters of the state at levels that have reasonable potential (RP) to cause, or contribute, to an excursion above a water quality value. RP is determined by developing preliminary effluent limitations (PELs) for a discharge and comparing the PELs to the potential effluent quality of the discharge.