

Ohio Environmental Protection Agency
Fact Sheet For
National Pollutant Discharge Elimination System (NPDES)
General Permit for Discharges from
Data Center Facilities

I. Background

The Federal Water Pollution Control Act [also referred to as the Clean Water Act (CWA)], and the Ohio Water Pollution Control Act codified in Ohio Revised Code (ORC Chapter 6111) provide that pollutants discharged from data center facilities to waters of the state are unlawful, unless the discharge is authorized by an NPDES permit.

The purpose of this General NPDES permit is to ensure that discharges from data center facilities to waters of the state are in compliance with all applicable state and federal water pollution control laws. Both wastewater and stormwater from the data center facility are proposed for coverage under this permit. Wastewater discharges include non-contact cooling waters, low volume wastewaters and stormwater from the site.

This permit may cover existing and proposed point source discharges from these types of facilities. Dischargers which meet the eligibility requirements may apply for coverage under this NPDES general permit, instead of seeking coverage under an individual NPDES permit. The conditions under the heading "eligibility" are very important because they provide an explanation of what type of discharges are and are not covered by this general permit.

The general permit imposes effluent discharge limitations which are listed in Part VI of this fact sheet. The general permit is intended to cover these types of facilities that are designed to meet these limits and consequently have a minimal impact on the environment.

This permit would be a first-time issuance. The general permit is proposed for a duration of five years.

II. Antidegradation

The general permit will go through the antidegradation procedure because the permit will authorize new discharges. This general permit is going to public notice as a degradation under the public notice provisions of the Antidegradation Rule [OAC Rule 3745-1-05(C)(3)]. A public hearing will be held under the provisions of 3745-1-05(C)(3)(f). A public hearing shall be held for the issuance of this draft general NPDES permit. The Antidegradation Rule excludes general permits from the alternatives analysis and social/economic justification portions of the rule [OAC 3745-1-05 (D)(1)(j)]. The discharge alternative being considered for this permit is central treatment of this wastewater at a publicly owned treatment works (POTW) or centralized waste treatment (CWT) facility. For some locations and types of discharges, this may be a viable option; in other cases, these facilities may not be available or acceptable

in the area. Ohio EPA is choosing to let discharge- and site-specific conditions related to the economics of installation, operation and discharge drive the alternative selection.

III. Description of General Permit Coverage and Type of Discharge

A data center facility means an establishment that provides computer processing and data preparation services, housing computing equipment that stores, processes, and distributes digital data. Data center facilities are generally those defined by Standard Industrial Classification (SIC) code 7374 - Data Processing And Preparation.

The permit covers proposed and existing data center facility operations that discharge to waters of the state. Existing point source discharges means those facilities discharging to waters of the state prior to July 1, 1993, or those facilities that have an existing NPDES permit. This permit does not cover co-related activities such as power generation.

Both wastewater and stormwater discharges from the data center facility are proposed for coverage under this permit. Wastewater discharges include non-contact cooling waters (once through or recirculated water that does not come into contact with the process operations of a facility and is used only to convey heat from the facility), low volume wastewaters (such as, cooling tower blowdown, boiler blowdown, and air compressor condensate yet excludes some waste streams like sanitary wastes) and stormwater associated with the industrial activities from the site. See Part VI of the permit for definitions.

Data centers can use a variety of cooling systems for the purpose of removing unwanted heat, such as air-cooled condensers, water-cooled condensers, evaporative cooling or a hybrid condenser with both air and water cooled modes. Other methods to cool computer equipment may include liquid-based cooling that use coolants such as water or refrigerants. These systems may be once-through to discharge or water may be recycled for use.

Activities exposed to stormwater include generators, fuel and chemical storage tanks, outdoor equipment storage, and material loading/unloading areas, or other operations where stormwater runoff may discharge pollutants.

The permit does not cover any discharges that the Director of the Ohio EPA has determined to be contributing to a violation of a Water Quality Standard (WQS) contained in Ohio Administrative Code, Chapter 3745-1. Discharges not eligible for coverage under this permit may still obtain an individual NPDES permit by submitting an individual permit application (Form 1, Form 2C, Form 2F, and an Antidegradation Addendum).

IV. Procedures for Participation in the Formulation of Final Determinations

The draft action shall be issued as a final action unless the Director revises the draft after consideration of the record of a public meeting or written comments, or upon disapproval by the Administrator of the U.S. Environmental Protection Agency.

A public hearing will be held for the issuance of this draft general NPDES permit. Evidence may be presented by the applicant, the state, or other parties, and following presentation of such evidence, other interested persons may present testimony of facts or statements of opinion.

Interested persons are invited to submit written comments upon the discharge permit. Comments should be submitted via Ohio EPA's [online comment portal](#). Comments can also be submitted by email to epa.dswcomments@epa.ohio.gov or by mail no later than 45 days after the date of this Public Notice. Deliver or mail all comments to:

**Ohio Environmental Protection Agency
Attention: Division of Surface Water
Permits and Compliance Section
P.O. Box 1049
Columbus, Ohio 43216-1049**

The OEPA permit number and Public Notice numbers should appear on each page of any submitted comments. All comments received no later than 30 days after the date of the Public Notice will be considered.

For additional information about this fact sheet or the draft permit, contact Allison Cycyk Allison.cycyk@epa.ohio.gov at (330) 963-1132.

V. Description of Application Process

Notice of Intent (NOI) – Each facility who intends to obtain coverage for discharges under this general permit must submit an NOI form prior to the commencement of discharge. Review of the “Eligibility Determining Factors” in Part I of the permit is critical to determining if the discharge can be authorized under this general permit.

NOI requirements are intended to establish a mechanism that can be used to establish a clear accounting of the number of permittees covered by the general permit, the identities, locations, mailing addresses, and nature of discharge. The NOI application graphical run-through for completing the form can be found at the following link, select “STREAMS” and “Types of Permit Applications Available within STREAMS”:

<https://epa.ohio.gov/divisions-and-offices/surface-water/permitting/electronic-business-services>

Supplementary data is required to be submitted with the NOI based on discharge monitoring results, an actual data pilot study, estimates from other engineering studies, data from other similar sites, or best professional estimates representative of the applicant's wastewater discharge. See Part II, Item B of the general permit for additional details.

Completed NOI applications shall be submitted through the Ohio EPA eBusiness Center Division of Surface Water NPDES Permit Application STREAMS service in the link below.

<https://ebiz.epa.ohio.gov/>

Facilities that discharge through a municipal separate storm sewer system (MS4) shall also submit a signed copy of the NOI to the operator of the MS4. A letter of acceptance from the operator of a MS4

shall be upload as additional information with the NOI application. More details are included in Part II.D of this general permit.

Application Fee – All applicants must submit the \$200 fee for NOI processing. Payment can be electronically submitted through the agency eBusiness Center ePay service. Instructions on submitting fee payments via the ePay service can be found in the link below.

<https://epa.ohio.gov/divisions-and-offices/surface-water/permitting/electronic-business-services>

An applicant will not be covered under the general permit until they receive written notification from the Director of Ohio EPA that a discharge is authorized under the general permit. Dischargers who fail to obtain coverage under the general permit and are not otherwise covered by a NPDES permit are in violation of Ohio Revised Code (ORC) 6111.

State and federal regulations exclude facilities covered by general permits from requirements to submit an application for an individual permit [OAC 3745-38-02 and 40 CFR 122.21 (a), respectively].

VI. Eligibility Determining Factors

The following discharges associated with data center facilities are not authorized by this permit:

- a. a discharge that is subject to an existing NPDES individual permit with a final effluent limitation or parameter that is not addressed by this general permit and that exhibits the reasonable potential to cause or contribute to an exceedance of Ohio Water Quality Standards;
- b. a discharge that the Director has determined to have reasonable potential to cause or contribute to an exceedance of Ohio Water Quality Standards, including discharges that require thermal load limits or maximum temperature limits as part of a thermal management requirement;
- c. a discharge that is located within five-hundred yards upstream of a public water supply surface water intake and cannot meet Ohio's public water supply standards;
- d. a discharge that discharges directly to the Ohio River that cannot meet public water supply standards at the point of discharge;
- e. with the exception of an existing discharge, any discharge to Outstanding State Waters, Superior High Quality Waters, Category 3 wetland or Outstanding National Resource Waters, other than Lake Erie, as defined by and identified in rule 3745-1-05 of the Ohio Administrative Code, or direct tributaries to these waters within two stream miles of these waters;
- f. A discharge to a receiving water with a seasonal salmonid habitat use designation;
- g. facilities discharging to a lake other than Lake Erie;
- h. facilities obtaining cooling water from a surface water intake that have design intake flow rates equal to or greater than 2 MGD or have been determined to have adverse environmental impact by the Director;

- i. stormwater, process, and industrial wastewater discharge from co-located activities, such as steam electric power generation facilities, as defined under 40 CFR 423;
- j. discharges of water from boiler or heat exchanger cleaning operations;
- k. a discharge for which the Director requests an individual NPDES permit application;
- l. a discharge to combined or sanitary sewer systems;
- m. a discharge to groundwater;
- n. a discharge from a facility that, in the judgment of the Director, is not likely to comply with the terms and conditions of this permit; and
- a. a discharge that contains a total concentration of volatile organic compounds greater than 100 ug/l (monthly average). Volatile organic compounds are those chemicals with Henry's Law Constants greater than 0.001, and water solubilities less than 8000 mg/l.

These include, but are not limited to, the following chemicals:

Benzene
 Carbon Disulfide
 Carbon Tetrachloride
 Chlorobenzene
 Chloromethane
 Chloroform
 Dibromochloromethane
 Dichlorodifluoromethane
 1,1-Dichloroethane
 1,2 - Dichloroethane
 1,1-Dichloroethene (1,1-Dichloroethylene)
 cis-1,2-Dichloroethene (cis - 1,2 - Dichloroethylene)
 trans - 1,2 - Dichloroethene (trans - 1,2 - Dichloroethylene)
 1,2 - Dichloropropane
 1,3 - Dichloropropene (1,3 - Dichloropropylene)
 Ethylbenzene
 n - Hexane
 Methylene Chloride (Dichloromethane)
 Styrene
 1,1,1,2 - Tetrachlorethane
 1,1,2,2 - Tetrachloroethane
 Tetrachloroethene (Tetrachloroethylene)
 Toluene
 1,1,1 - Trichloroethane
 1,1,2 - Trichloroethane
 Trichloroethene (Trichloroethylene)
 Trichlorofluoromethane
 1,2,3 - Trichloropropane
 Vinyl Chloride (Chloroethene, Chloroethylene)
 Xylenes

VII. Effluent Limitations and Monitoring Requirements

The permit contains two monitoring tables depending on if the wastewater discharge is mixed with stormwater or if stormwater is a separate outfall.

Outfall 001 (commingled wastewater and stormwater)

Temperature monitoring is proposed to ensure that waste heat (i.e., discharge of non-contact cooling waters) is conveyed to surface waters of the State does not result in violations of Ohio's water quality standards.

Oil and grease monitoring is proposed to ensure that low volume wastewaters like air compressor condensate do not result in violations of Ohio's water quality standards. Benchmark monitoring for oil and grease is also proposed for stormwater monitoring and used to determine the overall effectiveness of best management practices and to assist in knowing when additional corrective action(s) may be necessary.

Monitoring for total suspended solids is proposed only during a storm event. A benchmark for total suspended solids is proposed to capture a storm event and used to determine the overall effectiveness of best management practices and to assist in knowing when additional corrective action(s) may be necessary.

Flow rate monitoring is proposed to provide information on the amount of wastewater/stormwater discharged to waters of the state.

Total residual chlorine and total residual oxidants monitoring is proposed only if the Ohio EPA has approved the use of a treatment additive that releases bromine or a combination of bromine and chlorine, or if the source water is treated public water or other chlorinated water source. Limits are proposed based on the outside mixing zone maximum and average criteria for protection of aquatic life for chlorine and bromine.

Total phosphorus monitoring is proposed only if only if Ohio EPA has determined it necessary during the application review and/or Ohio EPA has approved the use of a treatment additive that releases phosphorus.

The pH limits are based on Ohio's water quality standards (OAC 3745-01-35).

Total filterable residue is an emerging water quality issue and expected in cooling water discharges. The 30-day average limit is the outside mixing zone average statewide criteria for protection of aquatic life.

Outfall 002 (stormwater only)

Oil and grease and total suspended solids benchmark monitoring are proposed to capture a storm event and used to determine the overall effectiveness of best management practices and to assist in knowing when additional corrective action(s) may be necessary.

VIII. Special Conditions

The following special conditions are proposed:

- Ohio EPA Quantification Level (QL) of 0.050 mg/L for total residual chlorine and total residual oxidant. Any value reported below the Ohio EPA QL is considered in compliance with the effluent limit;
- Treatment additive authorization procedure;
- Sufficiently sensitive data / method detection limits;
- Stormwater best management practices;
- Stormwater benchmark monitoring;
- Pesticide application, and;
- Spill prevention control and countermeasure.

IX. Notice of Termination

Each individual facility covered by the general permit must submit a Notice of Termination (NOT) form to terminate coverage under this permit. Permittees are to request permit coverage termination once the discharge is eliminated. Failure to submit a NOT form constitutes a violation of the permit and is a violation of ORC 6111.