

Ohio Environmental Protection Agency

Fact Sheet For

National Pollutant Discharge Elimination System (NPDES)

General Permit for Discharges of  
Non-Contact Cooling Water

**I. Background and Description of General Permit Coverage**

The Federal Water Pollution Control Act [also referred to as the Clean Water Act (CWA)], and the Ohio Water Pollution Control Act and the Ohio Revised Code (ORC Chapter 6111) provide that discharge of pollutants to waters of the state from any point source is unlawful, unless the discharge is in compliance with an effective NPDES permit.

Many commercial and industrial entities have the need to discharge wastewater characterized as “non-contact cooling water” from the operation of their facilities. Non-contact cooling water is defined as wastewater which does not come into contact with the process operations of a facility, and is used only to convey heat from the facility. U.S. EPA states that non-contact cooling water is used to reduce temperature and does not come into direct contact with any raw material, intermediate product, waste product (other than heat), or finished product.

Discharge limitations are listed in Part VI of this fact sheet. Draft changes to the permit are described in Part VII.

The general permit is proposed for a duration of five years. In order to be eligible for coverage under this general permit, the discharge flow volume must be no greater than five (5) percent of the critical low flow in the receiving stream, which results in a dilution ratio of at least 20 to 1. Experience has shown that discharges of non-contact cooling water which meet this criterion, have no significant thermal effect on aquatic life, and Ohio surface water temperature standards will be maintained. Non-contact cooling water must be free from contaminants (other than heat), and must not come into contact with wastewater potentially containing pollutants.

Dischargers not eligible for coverage under this permit may still obtain an individual NPDES permit by submitting individual permit applications (Form 1, Form 2D or 2E, and an Antidegradation Addendum).

**II. 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.

Within thirty days of the date of the Public Notice, any person may request or petition for a public meeting for presentation of evidence, statements or opinions. The purpose of the public meeting is to obtain additional evidence. Statements concerning the issues raised by the party requesting the meeting are invited. 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.

Requests for public meetings shall be in writing and shall state the action of the Director objected to, the questions to be considered, and the reasons the action is contested. Such requests should be addressed to:

**DSW Permits Processing Unit  
Ohio Environmental Protection Agency  
P.O. Box 1049  
Columbus, Ohio 43216-1049**

Interested persons are invited to submit written comments upon the discharge permit. Comments should be submitted in person or by mail no later than 30 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.

Citizens may conduct file reviews regarding specific companies or sites. Appointments are necessary to conduct file reviews, because requests to review files have increased dramatically in recent years. The first 250 pages copied are free. For requests to copy more than 250 pages, there is a five-cent charge for each page copied. Payment is required by check or money order, made payable to Treasurer State of Ohio.

For additional information about this fact sheet or the draft permit, contact Ashley Ward by email [ashley.ward@epa.ohio.gov](mailto:ashley.ward@epa.ohio.gov) or by phone at (614) 644-4852.

### **III. Description of Application Process**

Notice of Intent - Facilities must submit a Notice of Intent (NOI) application to apply for coverage under the general permit. 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].

NOI requirements are intended to establish a mechanism that can be used to establish a clear accounting of the number of facilities covered by the general permit, their identities, locations, mailing addresses, and the nature and amount of discharge.

NOI forms are now required to be submitted electronically. For more information, please see Part VII of this Factsheet.

To apply for general permit coverage, all applicants will be required to complete and submit an NOI application form that is available from Ohio EPA, along with an application fee of \$200. The NOI electronic application form is available through the Ohio EPA eBusiness Center at:

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

Facilities who intend to obtain coverage under the general permit shall submit an NOI form within 45 days of the effective date of the permit. Dischargers who fail to obtain coverage under the general permit and are not otherwise covered by an NPDES permit are in violation of Ohio Revised Code (ORC) 6111.

In order to receive authorization to discharge beyond the expiration date of this general permit (i.e. renew existing general permit coverage), the permittee shall notify the Director of the intent to be covered by the new general permit by submitting a new NOI within 45 days after the effective date of the renewed general permit.

#### **IV. Eligibility Determining Factors**

1. The permit covers all existing and proposed point source non-contact cooling water discharges to waters of the state except those discharges identified under paragraph 2 below. Eligible discharges are:

- a. Discharges that are less than five percent of the seven-day, ten-year low flow of the receiving stream, measured upstream from the discharge point.
- b. Discharges that are either non-contact water from geothermal heating and cooling systems, once through cooling water, or recirculated cooling water.

2. The following discharges are not authorized by this permit:

- a. Non-contact cooling water discharges that are mixed with any other discharges that are not non-contact cooling water. Storm water associated with industrial activity that is mixed with the non-contact cooling water discharge, during wet weather conditions, is not covered unless the non-contact cooling water can be monitored separately;
- b. Wastewater discharges associated with non-contact cooling water that are 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;
- c. Discharges for which the Director requests an individual permit application;
- d. Wastewater discharges associated with non-contact cooling water that the Director has determined to have the 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;

- e. Cooling tower blowdown, boiler blowdown, and air compressor condensate;
- f. Non-contact cooling water discharges that are greater than five percent of the seven-day, ten-year low flow (7Q10) of the receiving stream, measured upstream from the discharge point;
- g. Non-contact cooling water discharged to combined or sanitary sewer systems;
- h. Cooling water systems that are not isolated from all other pipelines;
- i. Wastewater discharges that take place within 500 yards of a surface water intake and cannot meet Ohio's public water supply standards;
- j. Wastewater discharges to the Ohio River that cannot meet public water supply standards at the point of discharge;
- k. With the exception of existing dischargers, any non-contact cooling water discharged to outstanding state waters, superior high quality waters or outstanding national resource waters, other than Lake Erie;
- l. Discharges that contain a total concentration of volatile organic compounds greater than 100 µg/L (monthly average);
- m. Wastewater discharges for total residual chlorine which exceed 0.038 mg/L for discharges greater than or equal to two hours per day or 0.2 mg/L for discharges less than two hours per day; or  
Wastewater discharges for total residual oxidants which exceed 0.01 mg/L for discharges greater than or equal to two hours per day or 0.05 mg/L for discharges less than two hours per day;
- n. Facilities obtaining cooling water from a surface water intake that have intake flow rates equal to or greater than 2 MGD.

## **V. Antidegradation**

The requirements of anti-degradation have been applied to the renewal of this permit in order to allow new discharges (i.e., those discharges not currently covered under an individual or general NPDES permit) to obtain coverage under this general permit. Assuming a 20 to 1 dilution ratio, calculations show that discharges under this permit meet an exclusion in accordance with the anti-degradation rule, and therefore a detailed technical review of alternatives and social and economic issues related to the degradation is not required.

## **VI. Effluent Limitations and Monitoring Requirements**

*Water temperature, flow rate, total residual oxidants, and total residual chlorine*

Monitoring is proposed to continue for water temperature, flow rate, total residual oxidants and total residual chlorine based on best technical judgment. The requirement that discharges are less than five percent of the seven-day, ten year low flow of the receiving stream ensure that WQS for water temperature are being met.

#### *pH*

The limits are proposed to continue for pH and are based on WQS.

### **VII. Changes from Current Permit**

A number of significant changes have been made to the general permit for non-contact cooling water, and these changes are discussed below.

#### *Eligibility*

There is a new condition that facilities obtaining cooling water from a surface water intake that have design intake flow rates equal to or greater than 2 MGD are not eligible for coverage under the general permit.

#### *316(b) Cooling Water Intake Structure Compliance*

The permittees' methods of obtaining cooling water have been evaluated using available information. Based on best professional judgment, Ohio EPA has determined that permittees meet Best Technology Available (BTA) to minimize adverse environmental impact in accordance with section 316(b) of the federal Clean Water Act due to the low withdrawal rates.

#### *General Effluent Limitations*

Language has been added that the effluent shall be free from substances that are rapidly lethal in the mixing zone. This is consistent with Ohio's WQS found in OAC 3745-1.

#### *Total Residual Oxidants*

Language has been added that total residual oxidants must be below 0.01 mg/L for discharges greater than or equal to two hours per day in duration or below 0.05 mg/L for discharges less than two hours per day in order for a facility to be eligible for the general permit. A Part IV condition has been included specifying that a method approved for chlorine with a minimum detection no greater than 0.01 mg/L must be used to test for total residual oxidants.

#### *Electronic NOI and NOT submittals*

NOI applications and NOT forms are required to be submitted online through the Ohio EPA eBusiness Center. Submission through the eBusiness Center will require establishing an Ohio EPA eBusiness Center account and obtaining a unique Personal Identification Number (PIN) for final submission.

Alternatively, if you are not able to access the NOI or NOT forms through the agency eBusiness Center due to a demonstrated hardship, an NOI or NOT may be submitted on paper NOI provided by Ohio EPA.

#### *Supplemental NOI submittals*

Facilities that have a surface water intake are required to submit the maximum daily intake flow rate, the average daily intake flow rate, and the percentage of intake water

used for cooling purposes. All applicants will need to submit the average daily temperature for May through September and the daily maximum temperature from the previous three years.

**VIII. 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 wastewater discharges are eliminated. Failure to submit an NOT form constitutes a violation of the permit and is a violation of ORC 6111.