STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER RESOURCES

IN SUPPORT OF RENEWAL UNDER THE

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
(NPDES)

FACT SHEET FOR
GENERAL PERMIT NCG500000

TO DISCHARGE NON-CONTACT COOLING WATER, BOILER BLOWDOWN, COOLING TOWER BLOWDOWN, CONDENSATE AND SIMILAR POINT SOURCE DISCHARGES.

December 1, 2025

1. TYPES OF DISCHARGES COVERED

A. Activities Covered by this General Permit

Point source discharges of non-contact cooling water, boiler blowdown water, cooling tower blowdown water, condensate, exempt stormwater and any other discharge of similar characteristics as decided by the Division. This general permit also covers discharges of waters associated with hydroelectric power facilities.

B. Geographic Area(s) Covered by this General Permit

Discharges covered by this General Permit are located at any place within the political boundary of the State of North Carolina (discharges located on Indian Tribal Reservations are subject to permitting by the US Environmental Protection Agency and are not covered by this General Permit).

C. Receiving Waters

All surface waters of the State of North Carolina or municipal separate storm sewer systems conveying water to surface waters, with the exception of new discharges to receiving waters classified as Outstanding Resource Waters (ORW).

D. Types of Wastewater Discharged

- Non-contact cooling water and open recirculation cooling water systems used in industrial processes for the sole purpose of cooling machinery and other equipment. Non-contact cooling water is defined by 40 CFR 401.11 (n, o) as water used for cooling which does not come into direct contact with any raw material, intermediate product, waste product or finished product. *(Contact cooling water is defined as cooling water that comes into contact with raw material, intermediate product, finished product, byproduct or waste product. Open recirculating cooling water systems continuously reuse the cooling water which passes through the heat transfer equipment. Open recirculating cooling water system discharges to a Water Supply water body may require an individual NPDES permit. Contact cooling water discharges require an individual NPDES permit.)*

- Condensate wastewater from atmospheric cooling systems (air conditioners, etc.).

- Blowdown wastewaters. Blowdown as defined by 40 CFR 401.11 (p) is the minimum discharge of recirculating water for the purpose of discharging materials contained in the water, the further buildup of which would cause concentration in amounts exceeding limits established by best engineering practice.

- Exempt stormwater, which is defined as discharges of stormwater which do not require permits under the state or Federal NPDES programs. Exempt stormwater includes:

    - Stormwater which accumulates in outdoor basins or ponds designed for cooling water or other waters covered by this permit.
    - Uncontaminated groundwater, foundation drains, air-conditioner condensate without added chemicals, springs, discharges of uncontaminated potable water, waterline and fire hydrant flushings, water from footing drains, irrigation waters, flows from riparian habitats and wetlands.
    - Discharges resulting from fire-fighting or emergency shower or eye wash as a result of use in the event of an emergency.

- Water associated with hydroelectric power facilities, including cooling waters, waters from sumps and drains, dam seepage and exempt stormwater.

- Other similar wastewaters which may qualify for coverage under this General Permit.

Discharges will not typically include any type of chemical additive; however, some discharges incorporate chemical additives such as biocides or corrosion inhibitors. Such discharges contain materials that, if accumulated and not discharged, would constitute a pollutant in high concentrations. All chemical additives must be reviewed and approved by the Division before usage can begin. See Part I, Section C.

E. Description of Typical Treatment Facilities

This type of discharge normally does not include a treatment system due to the lack of pollutants in the discharge. However, retention or settling ponds may be used to equalize the flow, lower the temperature, or settle any possible solids that might exist in the effluent.

F. Limitations on Coverage

- This permit does not authorize the discharge of water treatment or chemical additives (including but not limited to chromium, zinc or copper) other than chlorine and approved de-chlorinating reagents without written approval from the Division.
  The permittee shall obtain approval from the Division prior to the use of any chemical additive in the permittee's systems covered under this permit. To obtain approval the permittee shall notify the Director in writing at least ninety (90) days prior to instituting use of any new additive (other than additives previously approved by the Division). Such approval requests shall include a completed Biocide Worksheet Form 101 or equivalent worksheet form approved by the Division, a copy of the MSDS for the additive, and a map indicating the discharge point and receiving stream. Please direct all inquiries to the Aquatic Toxicology Branch. See Part I, Section C.

- If the Division determines at any time that the discharge is causing or contributing to a violation of water quality standards or if the Division has any other grounds for modifying or revoking this permit, the Division may require corrective action or require the discharge be permitted differently in accordance with Part II, Section B of this General Permit. The Division may deny

coverage under this permit and require submittal of an application for an individual NPDES permit based on a review of the Notice of Intent (NOI) or other information.

- Open recirculating cooling water system discharges to a Water Supply water body may require an individual NPDES permit.

G. Ineligible Discharges

- This General Permit does not authorize discharges that the Division has determined to be or which may reasonably be expected to be contributing to a violation of a water quality standard (as defined in 15A NCAC 02B .0100 - .0300).

- Facilities are ineligible for coverage under this General Permit if they qualify as a Major discharger, as classified by the EPA.

- Facilities will not be eligible coverage under this General Permit if non-exempt stormwater mixes with otherwise applicable discharges. This type of combined discharge will require an individual NPDES permit.

- This General Permit does not authorize new discharges to receiving waters classified as Outstanding Resource Waters (ORW).

- This General Permit does not authorize discharges of contact cooling water to surface water.

2. DISCHARGE CONTROLS AND LIMITATIONS

Total Residual Chlorine (TRC) limits of 17 ug/L for fresh water and 13 ug/L for discharge to saltwater are added to all permits that have chlorine present in the discharge. This includes chlorinated city water used for non-contact cooling and discharged [See attached copy of Part I, Section B, Effluent Limitations and Monitoring Requirements].

3. MONITORING AND REPORTING REQUIREMENTS

A. See attached copy of Part I, Section B, Effluent Limitations and Monitoring Requirements.

B. Reporting shall not be required except upon demand by the Division. Monitoring data shall be maintained on site for a period of three years.

C. The applicant shall monitor regularly effluent flow and those parameters limited in the permit at a frequency sufficient to ensure compliance with the permit conditions. Frequency, methods of sampling, and report dates are specified in the permit.

4. EFFECTIVE DATE OF EFFLUENT LIMITS (AND COMPLIANCE SCHEDULE IF APPLICABLE)

The permit effluent limits will go into effect on the date the permit is signed and dated by the Director. The permit will be in effect for a period of five (5) years.

5. SPECIAL CONDITIONS HAVING A SIGNIFICANT IMPACT ON THE DISCHARGE

The Permittee discharging wastewaters covered by this General Permit shall obtain authorization from the Division of Water Resources prior to use of any chemical additives. The Permittee shall notify the Director in writing not later than ninety (90) days prior to applying any chemical additive to the treatment system which may be toxic to aquatic life. Such notification shall include

completion of *Biocide Worksheet Form 101* and a map indicating the discharge point and receiving stream.

6. BASIS FOR EFFLUENT LIMITS

The conditions of this General Permit were designed using the Division's best professional judgement through the NPDES Program to achieve water quality protection through compliance with the technology-based standards of the Clean Water Act (Best Available Technology [BAT] and Best Conventional Pollutant Control Technology [BCT]).

Where the Director determines that a water-quality violation is occurring and additional water quality-based controls or effluent limitations are needed to protect the receiving waters, coverage under this General Permit shall be terminated and an individual permit will be required. Based on a consideration of the appropriate factors for BAT and BCT requirements, and a consideration of the factors discussed below for controlling pollutants, this General Permit defines specific requirements for limiting, monitoring and reporting of this type of discharge.

The General Permit conditions reflect the Environmental Protection Agency (EPA) and the North Carolina pollution prevention approach to non-contact cooling water, condensate, blowdown & hydroelectric facility permitting. Calculation of each individual limitation and monitoring requirement considers a combination of EPA requirements, State guidelines and water-quality standards. For this General Permit, Temperature, Total Residual Chlorine (TRC), Oil & Grease and pH are limited and monitored to determine the discharge's effect on the receiving stream. Receiving streams are classified under North Carolina Administrative Code 15A NCAC 2B Sections .0100 and .0200.

- Temperature limits are governed by 15A NCAC 2B .0211 (18).

- Chlorine limits (TRC) are governed by 15A NCAC 2B .0211 (3). TRC limits mollify detrimental impacts to the receiving waterbody considering stream classification, freshwater vs. saltwater.

- Oil & Grease limits are governed by 15A NCAC 2B .0211 (12). The specific limit of 20 mg/L is a numeric interpretation of the minimum standard listed in .0211 (12). A discharge of 20 mg/L into the receiving stream would cause a visible sheen (as described in .0211 (12)) and would constitute unacceptable degradation of the receiving stream.

- pH limits are governed by 15A NCAC 2B .0211 (14).

The water quality standards for Temperature, Total Residual Chlorine (TRC), Oil & Grease and pH have been chosen to offer the best protection available for these characteristics. Monitoring is determined by 15A NCAC 2B .0505 and by the need to know effects on the receiving stream.

NOTE: Effluent Limitations and Monitoring Requirements do not apply to exempt stormwater and dam seepage, as these are naturally occurring waters not subject to control by the Permittee. These two classes of wastewater do not appear on the Effluent Limitations and Monitoring Requirements pages in the General Permit.

7. THE ADMINISTRATIVE RECORD

Copies of the Draft Permit NCG500000 and Fact Sheet are available online through DWR's Laserfiche document repository at the following link:

https://edocs.deq.nc.gov/WaterResources/Welcome.aspx?cr=1

8. STATE CONTACT

Additional information concerning this General Permit may be addressed to Caroline Robinson with the NPDES Compliance and Expedited Permitting Unit at the number (919) 707-9130 or via email at Caroline.Robinson@deq.nc.gov.

9. CHANGES FROM PREVIOUS PERMIT

- Part I, Section A. Applicability has been expanded to include Geographical Area(s) Covered, Receiving Waters, and Ineligible Discharges.
- Additional language has been added to Part I, Section A. to provide clarity to the definition of 'exempt stormwater.'
- Chemical additive and biocide information has been moved to Part I. Section C.
- A geographic coordinates field has been added to the New Permit application and Permit Modification application.
- Units of measure have been added to Part I, Section B. (1.) – B. (4.).

10. PROPOSED SCHEDULE FOR ISSUANCE OF THE GENERAL PERMIT

A. Current Permit

The NPDES General Permit expires on November 30, 2025.

B. Revised Permit

The draft General Permit to public notice: July 14, 2025.

Permit scheduled to issue December 1, 2025.

11. PROCEDURES TO FORMULATE FINAL DETERMINATIONS

A. Comment Period

The Division of Water Resources proposes to issue this General NPDES Permit for this specified group of discharges, hereby assigning the effluent limitations and special conditions outlined above. These determinations are tentative and are open to comment from the public.

Interested persons are invited to submit written comments on the general permit or on the Division of Water Resources' proposed determinations to the following address:

North Carolina Department of Environmental Quality
Division of Water Resources
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

All comments received within thirty (30) days following the date of public notice were considered in the formulation of final determinations with regard to this application.

B. Public Hearing

The Director of the Division of Water Resources may hold a public hearing if there is a significant degree of public interest in the General Permit. Public notice of such a hearing will be circulated in newspapers in the State of North Carolina and to those on the Division of Water Resources' mailing list at least thirty days prior to the hearing.

C. Appeal Hearings

An applicant whose permit is denied, or is granted subject to conditions he deems unacceptable, shall have the right to a hearing before the Commission upon making written demand to the Director within 30 days following issuance or denial of the permit.

D. Issuance of the Permit When No Hearing is Held

If no public hearing or appeal hearing is held, the Division of Water Resources' will review all comments received and make a final determination.