

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES

FACT SHEET

GENERAL PERMIT NCG050000
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT TO DISCHARGE STORMWATER

Permit No. NCG050000

Date: June 1, 2023

1. TYPES OF DISCHARGES COVERED

a. Industrial Activities Covered by this General Permit

Coverage under this general permit is applicable to all owners or operators of stormwater point source discharges associated with activities classified as establishments primarily engaged in activities classified as:

- **Apparel and Other Finished Products Made from Fabrics and Similar Materials** [Standard Industrial Classification (SIC) 23], **Printing Publishing and Allied Industries** [SIC 27], **Converted Paper and Paperboard Products** [SIC 267], **Paperboard Containers and Boxes** [SIC 265], **Miscellaneous Manufacturing Industries** [SIC 39], **Leather and Leather Products** [SIC 31], and **Rubber and Miscellaneous Products** [SIC 30],
- Coverage is also applicable to point source discharges **from like industrial activities** deemed by the Division of Energy, Mineral, and Land Resources (DEMLR) to be similar to these operations in the process, or the discharges, or the exposure of raw materials, intermediate products, by-products, products, or waste products.

b. Types of Operations Covered

Apparel and Other Finished Products (SIC 23) includes industries primarily involved in manufacturing sewn products from purchased textile fabrics and related materials.

Printing, Publishing, and Allied Industries (SIC 27) includes facilities involved in printing by letterpress, lithography, gravure, or screen. It also includes establishments which perform services for the printing trade, such as bookbinding and platemaking, and facilities which publish newspapers, books, and periodicals.

Paperboard Containers and Boxes (SIC 265), and **Converted Paper and Paperboard Products** (SIC 267) produce a wide variety of paper products from purchased materials. There are two basic groups of manufacturing operation used to produce the final product: “wet” and “dry.” The first group of operations modifies and improves the purchased paper feedstock by operations like coating, impregnating or laminating, and various combinations of those. Because water is typically used in these operations, they are referred to as “wet.” The second group of operations produce finished products such as paper bags and boxes by various shaping, cutting, and

assembly operations. These are “dry” operations because waster is not used as part of the process.

Miscellaneous Manufacturing Industries (SIC 39) includes a variety of facilities that manufacture miscellaneous products. The major group includes jewelry, musical instruments, toy, and sporting goods manufacturers.

Leather and Leather Products (SIC 31, excluding Leather Tanning and Finishing [SIC 311]) establishments are involved in the manufacture of leather products from purchased leather that has already been treated in the leather tanning and finishing processes. Manufacturing of shoes, luggage, and other leather products are in this group.

Rubber and Miscellaneous Plastics Products (SIC 30) industries make products from manufactured plastic and natural, synthetic, and reclaimed rubber. Plastic molding and forming facilities consist of plants that blend, mold, form, or otherwise process a wide variety of plastic materials into intermediate or final plastic products (SIC 302, 305, 308). Rubber products manufacturing can be divided into molded, extruded, and fabricated products (SIC 302, 305, 308) and tires and inner tubes (SIC 301). Industries engaged in manufacturing tires and inner tubes are excluded from coverage under this general permit.

Most industries in these groups generally conduct manufacturing indoors as they are primarily engaged in producing finished goods and products. When viewed as a whole, facilities engaged in producing the above manufactured products will not store raw materials, intermediate products, final products, by-products, waste products, or chemicals outside. Production of significant emissions from stacks or air exhaust systems will not be a factor in the production process. Loading or unloading of chemicals or hazardous substances outside will not normally be an aspect of these facilities, either. The use of un-housed manufacturing and heavy industrial equipment will generally not occur. Also, significant dust or particulate generation will be atypical in the manufacture of these products. However, facilities with significantly more stormwater pollution risk than described by the above characterizations of limited exposure will be required to have an individual stormwater permit, rather than the General Permit, regardless of SIC classification.

c. Characteristics of Discharged Stormwater

The draft renewal permit maintains the requirement for qualitative monitoring of all stormwater discharges associated with industrial activity. The draft permit proposes analytical monitoring at all outfalls discharging stormwater associated with industrial activity.

The draft renewal permit also maintains that Non-Polar Oil & Grease be monitored at stormwater discharges from *on-site vehicle and equipment maintenance activities* (VMA) in which more than 55 Gallons of motor oil and/or hydraulic oil is used per month. This

parameter continues to be useful as the standard stormwater pollution indicator for VMA from this industrial sector.

d. 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 the Cherokee Indian Tribal Reservation are subject to permitting by the U.S. Environmental Protection Agency and are not covered by this general permit.

e. Receiving Waters

Receiving waters include all surface waters of North Carolina or municipal separate storm sewer systems conveying stormwater to surface waters.

2. MONITORING REQUIREMENTS

This permit specifies monitoring and reporting requirements for both quantitative and qualitative assessment of the stormwater discharges and operational inspections of the entire facility. Pollutant parameters and sampling frequency are based on the industrial activity performed at subject facilities, and on the potential for contamination of the stormwater runoff from those facilities. Qualitative parameters are consistent with other general permits in the NPDES stormwater program

The draft renewal permit now requires baseline sampling of all stormwater discharge outfalls and/or authorized representative discharge outfalls associated with industrial activity. Grab samples shall be collected, analyzed and reported for the parameters shown in the following table.

Parameter	FW BM mg/L	SW BM mg/L	Rational
Total Suspended Solids (TSS)	100	100	EPA MSGP recommended basic indicator of SCM effectiveness
TSS (HQW, ORW, Tr, PNA)	50	50	
Non-Polar Oil & Grease by EPA Method 1664 (SGT-HEM)	15	15	Adopted in 2015, more specific test for petroleum based oils and greases
Chemical Oxygen Demand (COD)	120	120	EPA recommended basic indicator of SCM effectiveness
pH	6-9 S.U.	6.8-8.5 S.U.	EPA recommended basic indicator of SCM effectiveness

FW BM: Freshwater Benchmark
 SW BM: Saltwater Benchmark
 EPA: Environmental Protection Agency
 MSGP: Multi Sector General Permit

SCM: Stormwater Control Measure
HQP: High Quality Waters
ORW: Outstanding Resource Waters
Tr: Trout Waters
PNA: Primary Nursery Area Waters

The renewal permit maintains benchmark concentrations for stormwater discharges from industrial site activities to provide facilities with a tool with which to assess the effectiveness of best management practices (BMPs). These benchmark concentrations are not effluent limits but provide guidelines for the facility's Stormwater Pollution Prevention Plan (SWPPP). Exceedances of benchmark values require the permittee to increase monitoring, increase management actions, increase record keeping, and/or install stormwater BMPs in a tiered program. Four (4) benchmark exceedances within the 5-year permit cycle trigger notification to the Regional Office and prompts Tier Three status. This renewal adds language to the Action Plan required as part of Tier Three status.

The Environmental Protection Agency (EPA) 2021 Multi Sector General Permit (MSGP) incorporates recommendations from a National Academies of Sciences, Engineering, and Medicine (NAS) National Research Council (NRC) study. Some of these recommendations have been included in this draft permit. Specifically, Total Suspended Solids (TSS), pH, and Chemical Oxygen Demand (COD) are recommended as basic indicators of Stormwater Control Measure (SCM) effectiveness.

In addition to the grab samples, the average monthly usage of new motor and hydraulic oil for the facility shall be tracked and recorded. Non Polar Oil and Grease will be required sampling for drainage areas that use greater than 55 Gallons of motor oil and/or hydraulic oil when averaged over the calendar year.

Total Rainfall (inches) will continue to be monitored. The total rainfall amount for each sampling event shall be recorded in inches. Total rainfall shall be determined from an on-site rain gauge or a regional rain gauge located within one (1) mile of the facility.

Monitoring frequency has increased from two to four times a year. Seasonal and weather changes may impact the facility and its discharge. More frequent monitoring will better represent the discharge throughout the entire year. Samples shall be collected four separate monitoring periods per year. A minimum of thirty (30) days must separate sampling events:

January 1 – March 31
April 1 – June 30
July 1 – September 30.
October 1 – December 31

Permittees will be allowed a 4-month grace period to prepare for analytical monitoring requirements. Permittees shall begin monitoring in Quarter 3 of 2023.

Per-and polyfluoroalkyl substances (PFAS) has been added as a potential required monitoring parameter if deemed by the Director on a case-by-case basis.

Some parts of the **Stormwater Pollution Prevention Plan (SPPP)** have been expanded or modified. Please refer to the proposed draft General Permit NCG050000 for those requirements.

3. REPORTING REQUIREMENTS

a. Deadlines for Submitting Discharge Monitoring Reports

Discharge Monitoring Reports (DMRs) shall be submitted in accordance with following table. For COCs issued between March 1-31, June 1-30, September 1-30 or Dec 1-31, sampling shall not commence until the next sampling period following initial issuance of the COC.

b. Submittal Process before eDMR

Prior to eDMR, samples analyzed in accordance with the terms of General Permit shall be reported as follows:

Sample results shall be recorded on Discharge Monitoring Report (DMR) forms that are available on Division's website: deq.nc.gov/about/divisions/energy-mineral-land-resources/npdes-industrial-stormwater.

DMRs shall be signed and certified by a person meeting signatory requirements.

Original, signed DMR forms shall be scanned and uploaded to the electronic DMR submittal form, which can be found at deq.nc.gov/SW-Industrial.

Original signed DMR Forms shall be mailed or otherwise delivered to the appropriate Regional Office, which is indicated at: deq.nc.gov/contact/regional-offices.

c. Submittal Process after eDMR

Unless otherwise informed by the Director, permittees shall register for eDMR within 30 days of the Certificate of Coverage issuance date and shall begin reporting discharge monitoring data. Information about eDMR can be found by typing "<https://deq.nc.gov/deq.nc.gov/sw-edmr>" into a browser window and hitting "enter"

d. Qualitative Monitoring Reports

The permittee shall record the required qualitative monitoring observations on the SDO Qualitative Monitoring Report form provided by the Division and shall retain the

completed forms on site. Qualitative monitoring results shall not be submitted to the Division, except upon the Division's specific requirement to do so. Qualitative Monitoring Report forms are available the Division's website (<https://deq.nc.gov/about/divisions/energy-mineral-land-resources/npdes-stormwater-gps>).

This permit specifies monitoring and reporting requirements for both quantitative and qualitative assessment of the stormwater discharges and operational inspections of the entire facility. Specific pollutant parameters and the frequency of the sampling are based on the types of materials used, stored, and transferred at these sites, and on the potential for contamination of the stormwater runoff from these facilities. Qualitative parameters are consistent with other general permits in the NPDES stormwater program.

The draft renewal permit proposes specific monitoring requirements for the following parameters for all stormwater discharges associated with industrial activity: **Total Rainfall, pH, Chemical Oxygen Demand (COD), Total Suspended Solids (TSS), and Average Monthly Oil Usage.**

Permittees shall monitor for **Non-polar Oil and Grease ("Non-polar O&G")** [by EPA Method 1664 (SGT-HEM)] if the facility uses more than 55 gallons of new motor oil and/or hydraulic oil per month when averaged over the calendar year. The rationale for maintaining this parameter in the renewal permit is its utility as stormwater pollution indicators for vehicle maintenance areas.

The renewal permit maintains benchmark concentrations for stormwater discharges from industrial site activities to provide facilities with a tool with which to assess the effectiveness of best management practices (BMPs). These benchmark concentrations are not effluent limits but provide guidelines for the facility's Stormwater Pollution Prevention Plan (SWPPP). Exceedances of benchmark values require the permittee to increase monitoring, increase management actions, increase record keeping, and/or install stormwater BMPs in a tiered program. Four (4) benchmark exceedances trigger notification to the Regional Office and may prompt additional requirements (Tier Three).

The Environmental Protection Agency (EPA) 2021 Multi Sector General Permit (MSGP) incorporates recommendations from a National Academies of Sciences, Engineering, and Medicine (NAS) National Research Council (NRC) study. Some of these recommendations have been included in this draft permit. Specifically, Total Suspended Solids (TSS), pH, and Chemical Oxygen Demand (COD) are recommended as basic indicators of Stormwater Control Measure (SCM) effectiveness.

As before, the renewal permit specifies qualitative (visual) monitoring of each stormwater outfall for the purpose of evaluating the effectiveness of the Stormwater Pollution Prevention Plan (SPPP) and assessing new sources of stormwater pollution. Qualitative monitoring parameters include color, odor, clarity, floating and suspended solids, foam, oil sheen, and other obvious indicators of stormwater pollution. Qualitative monitoring should be performed during any analytic sampling event.

The draft permit maintains specific direction to the permittee about how to respond to qualitative monitoring. If qualitative monitoring indicates that existing stormwater BMPs are ineffective, or that significant stormwater contamination is present, the permittee must investigate potential causes, evaluate the feasibility of corrective actions, and implement those corrective actions within 60 days. A written record of the permittee's investigation, evaluation, and response actions must be kept in the SPPP. The **Qualitative Monitoring Response** establishes actions for when a permittee repeatedly fails to respond effectively to correct problems, or if the discharge causes or contributes to a water quality standard violation.

4. COMPLIANCE SCHEDULE

The compliance schedule in Part I, Section 1 still advises that the permittee comply with Limitations and Controls specified for stormwater discharges in accordance with the following schedule:

Existing Facilities already operating but applying for permit coverage for the first time: The Stormwater Pollution Prevention Plan shall be developed and implemented within 12 months of the effective date of the **Certificate of Coverage** and updated thereafter on an annual basis. Secondary containment, as specified in Part B-9 of this general permit, shall be accomplished within 12 months of the effective date of the issuance of the **Certificate of Coverage**.

New Facilities applying for coverage for the first time: The Stormwater Pollution Prevention Plan shall be developed and implemented prior to the beginning of discharges from the operation of the industrial activity and be updated thereafter on an annual basis. Secondary containment, as specified in Part B of this general permit shall be accomplished prior to the beginning of discharges from the operation of the industrial activity.

Existing facilities previously permitted and applying for renewal under this General Permit: All requirements, conditions, limitations, and controls contained in this permit (except new SPPP elements in this permit renewal) shall become effective immediately upon issuance of the **Certificate of Coverage**. New elements of the Stormwater Pollution Prevention Plan for this permit renewal shall be developed and implemented within 6 months of the effective date of this general permit and updated thereafter on an annual basis. Secondary containment, as specified in Part B of this general permit shall be accomplished prior to the beginning of discharges from the operation of the industrial activity.

5. SPECIAL CONDITIONS WHICH WILL HAVE A SIGNIFICANT IMPACT ON THE DISCHARGE

This draft general permit does not propose any special conditions that will have a significant impact on the discharge. However, the proposed draft does add Special Conditions in Part F. that address electronic reporting requirements mandated by the federal NPDES Electronic Reporting Rule. The permittee must report discharge monitoring data electronically using the Electronic Discharge Monitoring Report

(eDMR) internet application. Permittees must register within 30 days of permit issuance.

6. BASIS FOR CONTROLS AND LIMITATIONS

Stormwater Discharges

The conditions of this general permit have been designed using best professional judgment 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 water quality-based controls or effluent limitations are required to protect the receiving waters, coverage under the 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 in this fact sheet for controlling pollutants in stormwater discharges associated with the activities as described in Item 1 (Types of Discharge Covered), this permit retains a set of requirements for developing and implementing stormwater pollution prevention plans, and specific requirements for monitoring and reporting on stormwater discharges.

The permit conditions reflect the Environmental Protection Agency's (EPA) and North Carolina's pollution prevention approach to stormwater permitting. The quality of the stormwater discharge associated with an industrial activity will depend on the availability of pollutant sources. This renewal permit still reflects the Division's position that implementation of Best Management Practices (BMPs) and traditional stormwater management practices which control the source of pollutants meets the definition of BAT and BCT. The permit conditions are not numeric effluent limitations, but rather are designed to be flexible requirements for developing and implementing site specific plans to minimize and control pollutants in the stormwater discharges associated with the industrial activity.

Title 40 Code of Federal Regulations (CFR) Part 122.44(k)(2) authorizes the use of BMPs in lieu of numeric effluent limitations in NPDES permits when the agency finds numeric effluent limitations to be infeasible. The agency may also impose BMP requirements which are "reasonably necessary" to carry out the purposes of the Act under the authority of 40 CFR 122.44(k)(3). The conditions of the renewal permit are retained under the authority of both of these regulatory provisions. The pollution prevention requirements (BMP requirements) in this permit operate as limitations on effluent discharges that reflect the application of BAT/BCT. The basis is that the BMPs identified require the use of source control technologies which, in the context of these general permits, are the best available of the technologies economically achievable (or the equivalent BCT finding).

All facilities covered by this general permit must prepare, retain, implement, and (at a minimum of annually) update a Stormwater Pollution Prevention Plan (SPPP). The term "pollution prevention" distinguishes this source reduction approach from traditional pollution control measures that typically rely on end-of-pipe treatment to remove

pollutants in the discharges. The plan requirements are based primarily on traditional stormwater management, pollution prevention and BMP concepts, providing a flexible basis for developing site-specific measures to minimize and control the amounts of pollutants that would otherwise contaminate the stormwater runoff.

The pollution prevention approach adopted in the SPPP in this renewal permit still focuses on two major objectives: 1) to identify sources of pollution potentially affecting the quality of stormwater discharges associated with industrial activity from the facility; and 2) to describe and ensure that practices are implemented to minimize and control pollutants in stormwater discharges associated with industrial activity from the facility and to ensure compliance with the terms and conditions of the permit.

The Division believes that it is not appropriate at this time to require a single set of effluent limitations or a single design or operational standard for all facilities which discharge stormwater associated with industrial activity. This permit instead establishes a framework for the development and implementation of a site-specific SPPP. This framework provides the necessary flexibility to address the variable risk for pollutants in stormwater discharges associated with the industrial activities that are addressed by this permit, while ensuring procedures to prevent stormwater pollution at a given facility are appropriate given the processes employed, engineering aspects, functions, costs of controls, location, and age of facility (as discussed in 40 CFR 125.3). This approach allows flexibility to establish controls which can appropriately address different sources of pollutants at different facilities.

There has been no significant change to this rationale since the previous General Permit NCG050000.

Stormwater Benchmarks

The proposed **pH benchmark** range is based on N.C. Water Quality Standards in 15A NCAC 02B .0211 and is consistent with other NPDES stormwater permits.

The **“Non-polar O&G” [by EPA Method 1664 (SGT-HEM)] benchmark** of 15.0 mg/l is consistent with other States’ benchmarks and/or limits for total petroleum hydrocarbons (TPH) and reflects a value normally only associated with significant oil contamination. Specifying the EPA Method 1664 with the silica gel treatment step (SGT-HEM) in the permit ensures a cost effective way to estimate TPH (as opposed to gas chromatographic analysis).

The standard **total suspended solids (TSS) benchmark** of 100 mg/l is based on the median concentration derived from the National Urban Runoff Program (NURP) study in 1983 and serves as a benchmark in most other industrial stormwater permits with TSS monitoring. The lower TSS benchmark for ORW, HQW, trout, and primary nursery area (PNA) waters of 50 mg/l reflects half that standard value and was set to flag potential problems in discharges to waters with much lower water quality standards for TSS concentrations (20 mg/l for HQW and ORW; 10 mg/l for trout and PNA waters).

The standard Chemical Oxygen Demand (COD) benchmark is based off Wastewater limits. COD is generally found at levels 4x that of Biological Oxygen Demand (BOD). The rationale for basing this benchmark off a wastewater limit is because discharged industrial stormwater should not be any more polluted than wastewater.

7. REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

There are no requested variances or alternatives to required standards. Facilities requesting variances to required standards will not be covered under this General Permit but will instead be required to seek coverage under an individual permit.

8. THE ADMINISTRATIVE RECORD

The public notice, containing the NCG05 draft renewal permit and fact sheet are available at the NC Stormwater Program's Public Notice web site:

<https://deq.nc.gov/about/divisions/energy-mineral-and-land-resources/stormwater/stormwater-program/stormwater-public>.

In addition, the historical record on the NCG05 permit is available at the Stormwater Program Laserfiche Repository, which can be found at:

<https://edocs.deq.nc.gov/WaterResources/Browse.aspx?id=280110&dbid=0&repo=WaterResources>.

9. STATE CONTACT

Additional information about the draft permit may be obtained at the above address between the hours of 8:00 AM and 5:00 PM Monday through Friday by contacting: **Brittany Cook** at (919) 707-3648.

10. SCHEDULE OF PERMIT ISSUANCE

Draft Permit Public Notice – **Statewide Notice to publish April 17, 2023;**
Draft available online by April 17, 2023;
Comment Period Ends May 17, 2023

Permit Scheduled to Issue – **No later than May 31, 2023;**
Effective June 1, 2023

11. PROCEDURE FOR THE FORMULATION OF FINAL DETERMINATIONS

a. Comment Period

The Division of Energy, Mineral, and Land Resources proposes to issue an NPDES General Permit for the above described stormwater discharges subject to the outlined effluent limitations, management practices, and special conditions. These determinations are open to comment from the public.

Interested persons are invited to submit written comments on the permit applications or on the Division of Energy, Mineral, and Land Resources' proposed determinations to the following address:

Stormwater Program
Division of Energy, Mineral, and Land Resources
1612 Mail Service Center
Raleigh, North Carolina 27699-1612
Attn: **Brittany Cook**

All comments received within thirty (30) days following the date of public notice are considered in the formulation of final determinations.

b. Public Meeting

The Director of the Division of Energy, Mineral, and Land Resources may hold a public meeting if there is a significant degree of public interest in a proposed permit or group of permits. Public notice of such a meeting will be circulated in newspapers in the geographical area of the discharge and to those on the Division of Energy, Mineral, and Land Resources' mailing list at least thirty (30) days prior to the meeting.

c. Appeal Hearing

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 Office of Administrative Hearing (OAH) within 30 days following issuance or denial of the permit.

d. Issuance of a Permit When no Hearing is Held

If no public meeting or appeal hearing is held, after review of the comments received, and if the Division of Energy, Mineral, and Land Resources determinations are substantially unchanged, the permit will be issued and become effective on the first day of the month following the issuance date. This will be the final action of the Division of Energy, Mineral, and Land Resources.

If a public meeting or appeal hearing is not held, but there have been substantial changes, public notice of the Division of Energy, Mineral, and Land Resources revised

determinations will be made. Following a 30-day comment period, the permit will be issued and will become effective on the first day of the month following the issuance date. This will be the final action of the Division of Energy, Mineral, and Land Resources unless a public meeting or appeal hearing is granted.