

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

FACT SHEET

GENERAL PERMIT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT TO DISCHARGE STORMWATER

Permit No. NCG030000

Date: August 3, 2018

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:
 - **Rolling, Drawing, & Extruding of Nonferrous Metals** [standard industrial classification (SIC) 335]
 - **Heat Treating of Metal** (SIC 3398)
 - **Fabricating of Metal Products** (SIC 34)
 - **Manufacturing of Industrial and Commercial Machinery** (SIC 35)
 - **Manufacturing of Electronic Equipment** (SIC 36)
 - **Manufacturing of Transportation Equipment** (SIC 37)
 - **Manufacturing of Measuring and Analyzing Instruments** (SIC 38)
- ◆ Stormwater 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.

Except upon DEMLR determination of similarity as provided immediately above, the following activities and associated discharges are excluded from coverage under this General Permit:

Establishments primarily engaged in **ship and boat building and repairing** (SIC 373), which is covered by general stormwater permit NCG190000.

b. Types of Operations Covered

SIC groups 34, 35, 36, 37, and 38 industry categories include facilities involved in the manufacture of metal and metal-related products, including metal cans; tinware; handtools; cutlery; general hardware; nonelectric heating apparatus; metal forgings; metal stampings; ordnance; engines and turbines; farm and garden machinery; construction machinery; mining machinery; elevators; hoist cranes; monorails; industrial trucks; tractors; industry machinery electricity distribution equipment; electrical industrial apparatus; household appliances; electrical lighting and wiring equipment; radio and TV receiving equipment; communications equipment; electronics components and accessories; motor vehicles; aircraft; guided missiles; space vehicles; boats; railroad equipment; motorcycles; bicycles; snowmobiles; measuring instruments; instruments sensors; optical instruments; lenses; surveying and drafting instruments; hydrological, hydrographic, meteorological, and geophysical equipment; medical equipment; dental equipment; ophthalmic goods; photographic equipment; and watches and clocks.

Facilities involved in the metal finishing industry may include activities best described by the following list from Title 40 Code of Federal Regulations Part 433 (40 CFR § 433):

Cleaning	Other Abrasive Jet	Vapor Plating
Machining	Machining	Thermal Infusion
Grinding	Electrical Discharge	Salt Bath Descaling
Polishing	Machining	Solvent Degreasing
Tumbling	Electrochemical	Paint Stripping
Burnishing	Machining	Painting
Impact Deformation	Electron Beam Machining	Electrostatic Painting
Shearing	Laser Beam Machining	Vacuum Metalizing
Heat Treating	Plasma Arc Machining	Assembly
Thermal Cutting	Ultrasonic Machining	Calibration
Welding Brazing	Sintering	Testing
Soldering	Laminating	Mechanical Plating
Flame Spraying	Hot Dip Coating	
Sand Blasting	Sputtering	

Also, facilities involved in the metal plating operations may include the following activities 40 CFR 413, Effluent Guidelines – Electroplating:

- Electroplating
- Electroless Plating
- Chemical Conversion Coating
- Etching and Chemical Milling
- Anodizing

Facilities involved in the coil coatings operations may include the following activities 40 CFR 465. Effluent Guidelines – Coil Coatings Category:

Coil Coatings with Steel Base Material
 Coil Coatings with Galvanized Base Material
 Coil Coatings with Aluminum Base Material
 Can Making

Facilities involved in electrical and electronic components manufacture may include the following activities, 40 CFR 469 – Electrical and Electronic Components Category:

Semiconductor Manufacture
 Electronic Crystals Manufacture
 Cathode Ray Tube Manufacture
 Luminescent Materials Manufacture

c. Characteristics of Discharged Stormwater

The renewal permit maintains the analytical monitoring requirements for all stormwater discharge outfalls associated with industrial activity. Additionally, the permit retains those analytical monitoring requirements specifically for facilities that have vehicle maintenance activity occurring on-site which uses more than 55 gallons of new motor oil and/or hydraulic oil per month when averaged over the calendar year.

The renewal permit also maintains the qualitative monitoring requirements for all stormwater discharge outfalls associated with industrial activity regardless of representative outfall status.

The decision to retain parameters from the previous permit was based on their continued usefulness as stormwater pollution indicators for these industry types.

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 US 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. DISCHARGE CONTROLS AND LIMITATIONS

The renewal permit maintains benchmark concentrations to provide facilities 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 (SPPP or Plan). 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).

3. MONITORING AND REPORTING REQUIREMENTS

The renewal permit specifies monitoring and reporting requirements for both quantitative and qualitative assessment of the stormwater discharge and operational inspections of the entire facility. Specific pollutant parameters for which sampling must be performed and the frequency of the sampling are based upon the types of materials used and produced in the manufacturing processes and the potential for contamination of the stormwater runoff at these facilities. Qualitative parameters are consistent with other general permits in the NPDES stormwater program.

The renewal permit proposes specific monitoring requirements for the following parameters for stormwater discharges: **Total Rainfall, pH, Non-polar Oil and Grease** [by EPA Method 1664 (SGT-HEM)], **Total Suspended Solids (TSS), Copper, Lead, Zinc, and Total Toxic Organics (TTO)**—unless the facility is waived from TTO monitoring through a Solvent Management Plan. Additionally, outfalls that discharge runoff from vehicle or maintenance areas will still need to monitor for new motor oil or hydraulic oil based on the average amount of oil used (more than 55 gallons used per month when averaged over the calendar year). In an effort to make the permit more user-friendly, all analytical monitoring requirements, including the associated benchmark values, were combined into one table. The monitoring schedule was also simplified to just ‘Period 1’ and ‘Period 2,’ which applies throughout the duration of the permit, instead of listing each period for all five years.

The renewal permit retains the term “**measurable storm event.**” The “measurable storm event” is an event that results in an actual discharge, rather than an event with a rainfall measuring 0.1 inches or more. To qualify as a measurable storm event, the previous storm event must have been at least 72 hours prior. The renewal permit also maintains the requirement to separate semi-annual sampling events by a minimum of 60 days.

The renewal permit allows the permittee to forgo sampling if *adverse weather* conditions prevent sample collection (see the **Definitions** section of the draft permit). Inability to sample because of adverse weather conditions must be documented in the SPPP and recorded on the data monitoring forms (DMRs).

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 and assessing new sources of stormwater pollution. Qualitative monitoring parameters include: color, odor, clarity, floating and suspended solids, foam, oil sheen, erosion or deposition at the outfall, and other obvious indicators of stormwater pollution. Qualitative monitoring should be performed during any analytic sampling event.

The renewal 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 III, Section A 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 II, Section A, Paragraph 2(b) 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 II, Section A, Paragraph 2(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 shall become effective immediately upon issuance of the **Certificate of Coverage**. Secondary containment, as specified in Part III, Paragraph 2(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

If a facility that is required to perform the Total Toxic Organics (TTO) monitoring develops a solvent management plan and makes the certification detailed in the permit, the facility will not be required to perform TTO monitoring.

In Part II, Section D addresses electronic reporting requirements mandated by the federal NPDES Electronic Reporting Rule. When the agency's electronic reporting system is able to accept NPDES stormwater permit monitoring data, the permittee must report discharge monitoring data electronically using NC Division of Water Resources' Electronic Discharge Monitoring Report (eDMR) internet application. NC DEMLR will notify permittees when eDMR is ready to accept data.

6. BASIS FOR CONTROLS AND LIMITATIONS

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), the 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 this general permit, are the best available of the technologies economically achievable (or the equivalent BCT finding).

All facilities covered by this stormwater general permit must prepare, retain, implement, and (at a minimum of annually) update a stormwater pollution prevention plan. 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 stormwater pollution prevention plans in the 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 this 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 site-specific stormwater pollution prevention plans. 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.

Stormwater Benchmarks

The **pH benchmark** range of 6.0 – 9.0 standard units is based on N.C. Water Quality Standards in 15A NCAC 02B .0211 and is consistent with other renewed general stormwater permits.

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 benchmarks for **Copper (Cu), Lead (Pb) and Zinc (Zn)** changed to 0.010 mg/L (or 10 µg/L), 0.075 mg/L (or 75 µg/L), and 0.126 mg/L (or 1.26 µg/L) respectively. The benchmark for lead is equal to one half the Final Acute Value ($\frac{1}{2}$ FAV). The FAV is estimated by a statistical analysis of acute toxicity data and protects 95 percent of the species in the most sensitive genera that has been tested. A safety factor of two is applied for water quality protection purposes. The benchmarks for copper and zinc are based on EPA's NRWQC *dissolved* criteria and translated into *total* for permitting purposes (as required by federal regulations for the NPDES program). The dissolved values are converted into total recoverable with EPA's partition factor and a calculation that assumes

a total suspended solids (TSS) concentration of 10 mg/L. Even though the TSS *stormwater benchmark* is typically much higher, 10 mg/L assumes a “best case” stormwater discharge with low solids, resulting in a conservative benchmark value for the total recoverable metal.

Total toxic organics (TTO) is a parameter representing the sum total of multiple organic compounds (depending on the industry). The same benchmark from the current permit, 1.0 mg/L, is in the renewal permit.

The benchmark for **Non-Polar Oil and Grease, or TPH, [EPA Method 1664 (SGT-HEM)]** remains at 15.0 mg/L. The TPH benchmark is consistent with other States’ benchmarks and/or limits. We would only expect in discharges associated with significant oil contamination to exceed this benchmark.

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 administrative record, including application, draft permit, fact sheet, public notice, comments received, and additional information, is available by writing to:

Stormwater Program
 Division of Energy, Mineral, and Land Resources (DEMLR)
 1612 Mail Service Center
 Raleigh, North Carolina 27699-1612

The above documents are available for review and copying at:

Archdale Building, 9th Floor
 DEMLR Stormwater Program
 512 N. Salisbury Street
 Raleigh, North Carolina 27604

between the hours of 8:00 AM and 5:00 PM Monday through Friday. Copies will be provided at a charge of 10 cents per page.

9. STATE CONTACT

Additional information about the draft and final permit may be obtained at the above address between the hours of 8:00 AM and 5:00 PM Monday through Friday by contacting: **Alaina Morman** at (919) 707-9236.

10. SCHEDULE OF PERMIT ISSUANCE

Draft Permit Public Notice – **Statewide Notice to publish: September 4, 2018;**
Draft available on-line: September 16, 2018;
Comment Period Ends: October 16, 2018

Permit Scheduled to Issue – **October 31, 2018;**
Effective November 1, 2018

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 benchmark concentrations, 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: **Alaina Morman**

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.