# NPDES Industrial Stormwater Program

The NPDES (National Pollutant Discharge Elimination System) Industrial Stormwater Program is federally mandated and covers a <u>wide variety of industrial activities</u> . General permits apply to numerous broad categories of industrial activities with potential stormwater discharges. Industries that are not eligible for any of the general permits are required to seek an individual permit. An alternative to a permit is a "no exposure certification," which certifies the facility has no industrial materials or activities that are exposed to precipitation, and that secondary containment is provided. The NC NPDES industrial stormwater program includes approximately: 3100 certificates of coverage (COCs) under general permits, 150 individual permits, and 880 no exposure certifications.

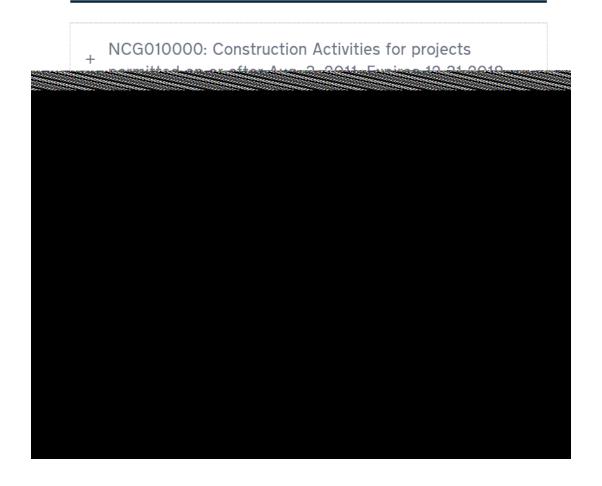


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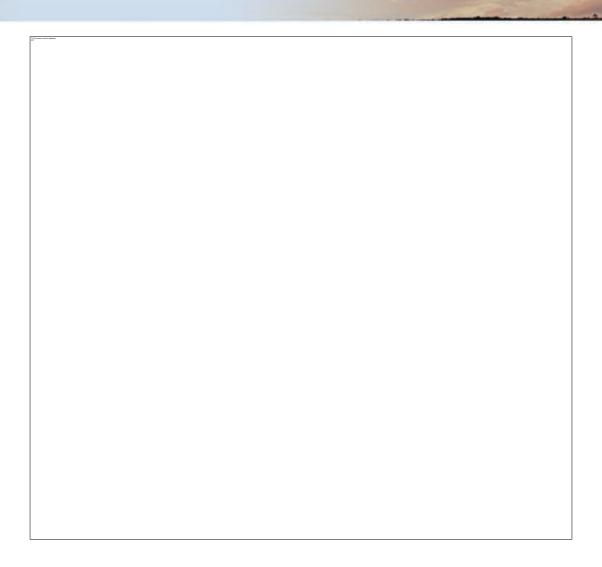
- The term "Storm Water Discharges Associated with Industrial Activity," defined in federal regulations 40 CFR 122.26(b)(14)(i)-(xi), determines which industrial facilities are potentially subject to the NPDES stormwater program. The definition uses either SIC (Standard Industrial Classification) codes or narrative descriptions to characterize the activities, and requires a point source discharge.
- A point source discharge is defined as any discernible, confined and discrete conveyance including, but not specifically limited to, any pipe, ditch, channel, tunnel, conduit, well, or discrete fissure from which stormwater is or may be discharged to waters of the state.



### **Stormwater General Permits**









- NCG150000: Airports, Effective 9-1-2017, Expires 8-31-2022
- + NCG160000: Asphalt Paving Mixtures, Blocks, Effective 10-1-2014, Expires 9-30-2019
- + NCG170000: Textile Mill, Effective 8-1-2014, Expires 7-31-2019
- + NCG180000: Furniture Manufacture, Effective 9-1-2014, Expires 8-31-2019
- + NCG190000: Marinas and Shipbuilding, Effective 6-2-2015, Expires 5-31-2020
- + NCG200000: Scrap Metal, Effective 2-2-2015, Expires 12-31-2019
- + NCG210000: Timber Products, Effective 8-1-2018, Expires 7-31-2023
- + NCG240000: Composting Operations, Effective 10-2-2017, Expires 9-30-2022



- Each permit requires the facility to develop a site-specific Stormwater Pollution Prevention Plan (SPPP) and conduct analytical and/or qualitative (visual) monitoring of stormwater discharges based on the facility's potential pollutant sources
- The SPPP must include items such as a narrative description of practices, detailed site map, spill prevention & response procedures, preventative maintenance & good housekeeping program, employee training, etc.
- There are also requirements for secondary containment of bulk storage of liquid materials, listing and reporting of significant spills, annual review and updates, and implementation
- Monitoring of stormwater discharges is semi-annually (Jan-June, July-Dec) provided that analytical results do not exceed associated benchmark values for the specified parameters
- Exceedances of benchmark values trigger tiered response actions such as an internal facility evaluation to identify possible causes, increased monitoring frequency to monthly, installation of structural stormwater controls, in-stream monitoring, etc.

**Industrial Stormwater** 

#### • SPPP

- Helpful if well-organized and easy to follow (i.e. indexed, section tabs, binder)
- Contain all permit-required components including associated documents related to maintenance/good-housekeeping, annual employee training, releases of accumulated stormwater from secondary containment structures
- Amended whenever there is a change in design, construction, operation, site drainage, maintenance, etc.
- Updated annually regarding; any significant spills or notation that none have occurred, non-stormwater certification, effectiveness of BMPs, review and comparison of analytical monitoring data to benchmark values
- Implementation



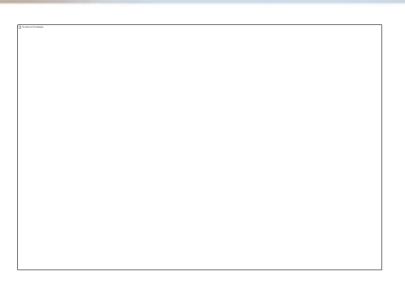
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Industrial Stormwater

### Secondary Containment

- Bulk storage of liquid materials: single above ground storage container with capacity of greater than 660 gallons <u>OR</u> multiple containers with total combined capacity of greater than 1,320 gallons (totes, drums, etc.)
- Storage in any amount of hazardous substances or water priority chemicals
- Spill containment for contents of largest tank plus sufficient freeboard for the 25-year, 24-hour storm event; double-walled tanks acceptable
- Drain valves must be kept closed AND locked, accumulated stormwater can be released if found to be uncontaminated by any material upon visual observation
- Document observations and releases in the SPPP













- Monitoring Protocol/Sampling Location
  - Monitoring performed during a measurable storm event event resulting in an actual discharge from the outfall where previous storm event occurred at least 72 hours prior
  - Stormwater Discharge Outfall (SDO) point of departure from point source discharge from which stormwater flows directly or indirectly into waters of the state (i.e. end of pipe, ditch, etc. before leaving property or entering receiving stream)
    - If SDO is off property or inaccessible due to safety concerns, allow sample to be taken at last catch basin/drop inlet
  - Samples shall be collected within the first 30 minutes of discharge
  - Samples should not be taken directly from a stormwater retention pond



- Monitoring Records Review
  - Helpful if in chronological order by sampling period
  - Discharge Monitoring Report (DMR) should be filled out completely and signed by responsible official or their designee
  - Lab reports with corresponding monitoring results should be included with associated DMRs to ensure proper testing methods and data transfer
  - DMRs submitted within 30 days from receipt of lab report
    - Recommend proof of submission of DMRs to Central Files via Certified Mail
  - Qualitative monitoring performed during required analytical monitoring events
    - Records not submitted unless requested



#### Industrial Stormwater

Permit Date: 11/1/2018-05/31/2021

	Stormwater Disch	narge Monitoring Report
	for North Carolina Division of Energy, Mineral	l and Land Resources General Permit No. NCG030000
	Date submitted	
	CERTIFICATE OF COVERAGE NO. NCG03	SAMPLE COLLECTION YEAR
	FACILITY NAME	or Monthly <sup>1</sup> (month)
	COUNTY	DISCHARGING TO CLASS ORW HOW Trout PNA
	PERSON COLLECTING SAMPLES	
	LABORATORYLab Cert.#	Zero-flow Water Supply SA
	Comments on sample collection or analysis:	Other
		PLEASE REMEMBER TO SIGN ON PAGES 2 AND/OR 3
	Part A: Stormwater Benchmarks and Monitoring Results	N 1: 1 12
ı		No discharge this period? <sup>2</sup>

Outfall No.	Date Sample Collected <sup>1</sup> (mo/dd/yr)	24-hour rainfall amount, Inches <sup>3</sup>	Total Suspended Solids	pH, Standard units	Total Copper	Total Lead	Total Zinc	Non-Polar O&G/ Total Petroleum Hydrocarbons	Total Toxic Organics <sup>5</sup>
Benchmarks	-	-	100 mg/L or 50 mg/L <sup>4</sup>	6.0 - 9.0	0.010 mg/L	0.075 mg/L	0.126 mg/L	15 mg/L	1 mg/L
Parameter Code	-	46529	CO530	00400	01119	01051	01094	00552	78141

<sup>1</sup> Monthly sampling (instead of semi-annual) must begin with the second consecutive benchmark exceedance for the same parameter at the same outfall.

SWU-245, last revised 11/1/2018 Page 1 of 3



<sup>&</sup>lt;sup>2</sup> For sampling periods with no discharge at any single outfall, you must still submit this discharge monitoring report with a checkmark here.

<sup>&</sup>lt;sup>3</sup>The total precipitation must be recorded using data from an on-site rain gauge. Unattended sites may be eligible for a waiver of the rain gauge requirement.

<sup>&</sup>lt;sup>4</sup> See General Permit, Section B, Table 1 to identify the especially sensitive receiving water classifications where the more protective benchmark applies.

<sup>&</sup>lt;sup>5</sup> Total Toxic Organics sampling is applicable only for those facilities which perform metal finishing operations, manufacture semiconductors, manufacture electronic crystals, or manufacture cathode ray tubes. For purposes of this permit the definition of Total Toxic Organics is that definition contained in the EPA Effluent Guidelines for the facility subject to the requirement to sample (for metal finishing use the definition as found in 40 CFR 433.11; for semiconductor manufacture use the definition as found in 40 CFR 469.12; for electronic crystal manufacture use the definition as found in 40 CFR 469.22; and for cathode ray tube manufacture use the definition found in 40 CFR 469.31).

#### **Industrial Stormwater**

Facilities that incorporate a solvent management plan into the Stormwater Pollution Prevention Plan may so certify, and the requirement for TTO monitoring may be waived. The solvent management plan shall include a list of the total toxic organic compounds used and the other elements listed in the General Permit. For those facilities electing to employ the TTO monitoring waiver, the discharger shall sign the following certification statement:

"Based upon my inquiry of the person or persons directly responsible for managing compliance with the permit monitoring requirement for total toxic organics (TTO), I certify that to the best of my knowledge and belief, no dumping of concentrated toxic organics into the stormwater or areas which are exposed to rainfall or stormwater runoff has occurred since filing the last discharge monitoring report. I further certify that this facility is implementing the all the provisions of the solvent management plan included in the Stormwater Pollution Prevention Plan."

Name (Print name)	
Title (Print title)	
Signatura	Date
Signature	Date

Note: Results must be reported in numerical format. <u>Do not report</u> Below Detection Limit, BDL, <PQL, Non-detect, ND, or other similar non-numerical format. When results are below the applicable limits, they must be reported in the format, "<XX mg/L", where XX is the numerical value of the detection limit, reporting limit, etc. in mg/L.

Note: If you report a sample value in excess of the benchmark, you must implement Tier 1, Tier 2, or Tier 3 responses. See General Permit text.

Part B: Vehicle Maintenance Area Monitoring Results: only for facilities averaging > 55 gal of new oil per month.

No discharge this period?<sup>2</sup>

				No dischary	e uns perioa:
Outfall No.	Date Sample Collected <sup>1</sup> (mo/dd/yr)	24-hour rainfall amount, Inches³	New Motor Oil or Hydraulic Oil Usage	Non-Polar O&G/ Total Petroleum Hydrocarbons	Total Suspended Solids
Benchmarks	-	-	-	15 mg/L	100 mg/L or 50 mg/L <sup>4</sup>
Parameter Code	-	46529	NCOIL	00552	CO530

Footnotes from Part A also apply to Part B

Note: If you report a sample value in excess of the benchmark, you must implement Tier 1, Tier 2, or Tier 3 responses. See General Permit text.

Permit Date: 11/1/2018-05/31/2021

SWU-245, last revised 11/1/2018
Page 2 of 3



#### **Industrial Stormwater**

FOR PART	A AND PART	<b>B MONITORING</b>	RESULTS
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- . A BENCHMARK EXCEEDANCE TRIGGERS TIER 1 REQUIREMENTS. SEE PERMIT PART II SECTION B.
- . 2 EXCEEDANCES IN A ROW FOR THE SAME PARAMETER AT THE SAME OUTFALL TRIGGER TIER 2 REQUIREMENTS. SEE PERMIT PART II SECTION B.

Permit Date: 11/1/2018-05/31/2021 SWU-245, last revised 11/1/2018 Page 3 of 3



**Industrial Stormwater** 



### Stormwater Discharge Outfall (SDO) Qualitative Monitoring Report

For guidance on filling out this form, please visit https://deq.nc.gov/about/divisions/energy-mineral-landresources/energy-mineral-land-permits/stormwater-permits/npdes-industrial-sw#lab-4

ounty.	Phone No.
ime of Inspection:	
otal Event Precipitation (inche	s):
ll permits require qualitative m	nonitoring to be performed during a "measurable storm event."
utfall. The previous measurabl iterval does not apply if the per	s a storm event that results in an actual discharge from the permitted site le storm event must have been at least 72 hours prior. The 72-hour storm mittee is able to document that a shorter interval is representative for impling period, and the permittee obtains approval from the local DEMLR
y this signature, I certify that th	his report is accurate and complete to the best of my knowledge:
Signature of Permittee or Desi	gnee)
. Outfall Description: outfall No S eceiving Stream:	tructure (pipe, ditch, etc.):



Page 1 of 2

SWU-242, Last modified 07/28/2017

#### **Industrial Stormwater**

discharge, where spended Solids: ater discharge, which	hoose the number 1 is no solid  Choose the here 1 is no s	ds and 5  2  number solids an	ich best is the su 3 which be id 5 is ex	describe urface co 4 est descr xtremely	es the amount of f vered with floatin 5 ibes the amount o	doating solids in the g solids: of suspended solids i
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-	•	-	3			
-	the stormwa			4	5	
here an oil sheen		ater disci	harge?	⊃ Yes	○ No	
	in the storm	ıwater di	scharge	? OYes	○ No	
here evidence of	erosion or d	lepositio	n at the	outfall?	○Yes ○No.	
her Obvious Ind	icators of St	tormwa	ter Polli	ution:		
ccriba						
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s	cribe	cribe	cribe	cribe	cribe	cribe

Note: Low clarity, high solids, and/or the presence of foam, oil sheen, or erosion/deposition may be indicative of pollutant exposure. These conditions warrant further investigation.



#### Contact Information

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