

Stormwater Outfall Monitoring Question and Answer

Q: Do stormwater monitoring samples have to be analyzed by a certified lab or entity? What about pH, which has to be done in the field?

A: For Stormwater Discharges: North Carolina certification procedures do not apply to stormwater-only discharges at this time. However, any monitoring of discharges under an NPDES permit (including stormwater) must be conducted in accordance to test procedures approved under federal regulations in 40 CFR §136. This includes measuring pH properly within the 15-minute hold time. All labs certified by North Carolina perform analyses in accordance with federal procedures. So, even if your facility is not classified as a Water Pollution Control System, using a North Carolina certified lab is often the easiest way to comply with NPDES Program requirements. A list of North Carolina certified labs can be found [here](#).

For Wastewater Discharges: North Carolina certification procedures apply to wastewater discharges originating from Water Pollution Control Systems defined under T15A NCAC 8G .0300 and classified by the Technical Assistance and Certification Unit. However, wastewater treatment facilities at most mines and ready-mixed concrete plants under General Permits NCG020000 and NCG140000 are not classified at this time. Because state Operator and Laboratory Certification programs currently do not address these treatment facilities, there are no certification requirements for entities performing wastewater sample analysis (including field measurements like pH) at these sites right now, unless an exception is classified by the TACU. Whether certified or not, discharge monitoring under an NPDES permit must be conducted in accordance to test procedures under 40 CFR §136.

Q: My permit requires analysis for "Non-polar Oil & Grease/TPH by Method 1664 (SGT-HEM)." Is that more than one test?

A: No. There has been confusion over this parameter in recent permits (mainly for vehicle maintenance monitoring), and we want to clear it up. This description refers to ONE test: Non-polar Oil & Grease using EPA Method 1664 with the silica gel treatment step, in addition to hexane extraction (not JUST HEM). This gravimetric test method is an alternative way of estimating Total Petroleum Hydrocarbons (TPH), without using the more expensive gas chromatographic analysis. This parameter does not refer to TPH analysis by gas chromatograph. Future permits and DMR forms will be updated with language to avoid confusion about the term. [Please note that currently labs in NC are being certified for Revision B to that Method under 40 CFR 136.]

Q: How does DEMLR calculate stormwater benchmarks, and what are they?

A: Benchmarks are numerical action levels for stormwater monitoring. Benchmarks are not effluent limits. Benchmarks are determined with help from Division of Water Resources' Classification and Standards Unit and are determined using data from multiple sources including regulations such as EPA's National Recommended Water Quality Criteria, the National Primary Drinking Water Regulation in 40 CFR 141.11, and NC Surface Water Quality

Standards (found in 15A NCAC 02B regulations). When regulations do not contain information for a particular pollutant of concern, benchmarks are calculated per 15A NCAC 2B .0200 using peer-reviewed toxicity data.

In general, benchmarks are calculated to mimic acute water quality standards. The established Federal procedures for calculation of an acute standard are followed when developing the benchmarks (acute standard/benchmark is set at 1/2 of the calculated FAV or Final Acute Value). Acute standards are used because they are calculated to protect aquatic life from negative impacts due to short-term exposure to higher levels of chemicals. NC DEMLR believes this best reflects the potential impacts of stormwater exposures.

Q: If I take "extra" samples, do I have to send the results to DEMLR with my regular DMR data?

A: Not unless conditions in your permit require you to. Either way, you must maintain records of those results for at least five (5) years and provide them to DEMLR if requested (for example, by an inspector). This obligation is in the "Records Retention" requirements found in the boiler plate sections of your permit. Future standard permit requirements may explicitly require these data be reported.

If your permit requires monitoring under a tiered-response structure tied to benchmark values, "extra" samples within the same monitoring period that exceed stormwater benchmark concentrations do not count as exceedances.

Q: Can mobile car washing operations discharge pressure wash water to storm drains without a permit?

A: No. Vehicle pressure washing wash water is a wastewater, and discharge to surface waters through storm drains is not authorized by any NPDES stormwater permit. You should check with your local government, as some may require a permit. This fact sheet has additional details and information. (Also see the NPDES Wastewater Guidance website.)

Q: If my facility uses more than 55 gal/month of motor oil BUT performs all vehicle maintenance indoors, do we still have to monitor VMA parameters in the permit?

A: Probably. Even when all maintenance is performed inside, the NPDES program considers parking lots used to store vehicles prior to maintenance as a component of the vehicle maintenance activity (VMA). The facility must still monitor any outfalls draining those areas for VMA-related parameters if the parking area for these vehicles is exposed.

If all vehicles awaiting maintenance are not stored outside or otherwise exposed to stormwater, EPA guidance is not clear about whether monitoring applies when the minimum motor oil usage (indoors) is exceeded. NC's NPDES Stormwater Program interprets current permit conditions to allow permittees to forgo VMA monitoring as long as no vehicle maintenance materials, maintenance activities, or vehicles are exposed in any drainage area.