

May 28, 2024

Susan Edwards
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via email

Re: Comments on draft VPDES permit for the Northside Wastewater Treatment Plant (Permit Number VA0060593)

Dear Ms. Edwards:

The Southern Environmental Law Center, Dan River Basin Association, and Wild Virginia offer the following comments on the draft Virginia Pollutant Discharge Elimination System (VPDES) permit prepared by the Virginia Department of Environmental Quality (DEQ) for the Northside Wastewater Treatment Plant in Danville, Virginia (Northside WWTP) (Permit Number VA0060593). The Northside WWTP's own sampling indicates that the treatment plant has discharged concentrations of over 100 parts per trillion (ppt) of total per- and polyfluoroalkyl substances (PFAS) to the Dan River.¹ DEQ has been aware of this pollution since at least 2022² but has failed to assess effluent limits and failed to incorporate permit conditions recommended by the U.S. Environmental Protection Agency (EPA) to control PFAS pollution from the plant. In addition, DEQ did not disclose evidence of this PFAS pollution to the public until just seven days (including a holiday weekend) before the end of the period for comment on the draft permit, severely limiting the public's ability to provide meaningful input. We urge DEQ to extend the comment period and hold a public hearing for this draft permit in light of this belated disclosure.

DEQ's failure to address PFAS pollution coming from the Northside WWTP is inadequate under the Clean Water Act and DEQ must make several changes to the treatment plant's VPDES permit. Specifically, DEQ must evaluate and impose technology- and water quality-based effluent limits to address PFAS discharges from the Northside WWTP. In addition, consistent with EPA's recommendations, DEQ must require quarterly effluent, influent, and biosolids monitoring using EPA wastewater method 1633 (method 1633) and EPA wastewater method 1621 (method 1621). It also must add conditions to the VPDES permit that require the Northside WWTP to amend its pretreatment program to: (1) update its industrial user survey and determine all industrial sources of PFAS; (2) require regular monitoring by industrial users for PFAS using method 1633 and method 1621; and (3) control through its pretreatment program any industrial sources of PFAS that would result in pass through or interference pollution.

¹ Va. Dep't of Env't Quality, *VPDES Permit VA0060593 Danville – Northside WWTP Reissuance 2024*, app. D. at PDF pg. 11.

² *Id.* at PDF pg. 33-34.

I. Northside WWTP has discharged PFAS, a class of chemicals known to be harmful to human health and the environment.

Data indicates that the Northside WWTP has known it discharges PFAS since at least April 2021.³ Sampling results from April 2021 show that the treatment plant's influent contained at least 12 types of PFAS (with concentrations of total PFAS of over 157 ppt) and its effluent contained at least nine types of PFAS (with concentrations of total PFAS of almost 109 ppt).⁴ The PFAS discharged from the treatment plant included concentrations of 15 ppt of perfluorooctanoic acid (PFOA) and 17 ppt of perfluorooctanesulfonic acid (PFOS), well above the federal drinking water standards of 4 ppt for these types of PFAS (discussed below).⁵ The results also show discharges of perflorobutanesulfonic acid (PFBS) (4.8 ppt) and perfluorohexanesulfonic acid (PFHxS) (4.9 ppt), which are subject to drinking water standards as well.⁶

It is our understanding that DEQ was aware no later than May 2022, when the treatment plant submitted its response to DEQ's "PFAS Survey," that Northside WWTP had sampled for and found PFAS in its influent and effluent.⁷

It is not surprising that the Northside WWTP discharges PFAS because it receives industrial wastewater from several significant industrial users that may use or discharge PFAS:

- Goodyear Tire & Rubber Co. (SIC 3011; NAICS 326211) – Goodyear Tire & Rubber manufactures aircraft tires and commercial tires at their Danville facility.⁸ EPA⁹ and several states¹⁰ have listed tire manufacturing facilities as potentially using or discharging PFAS.
- Arkema Inc., Sartomer Business Unit (SIC 2869; NAICS 325199, 325211, 325998) – Arkema produces acrylate and methacrylate monomers and oligomers for industries such as electronics, coatings, adhesives and sealants, personal care products, and 3D printing.¹¹ Its industry codes are associated with organic chemical and plastics manufacturing, which

³ *Id.* at PDF pg. 6-28.

⁴ *Id.* at PDF pg. 11.

⁵ *Id.* at PDF pg. 11; EPA, *Per- and Polyfluoroalkyl Substances (PFAS) – Final PFAS National Primary Drinking Water Regulation* (Apr. 10, 2024), <https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas>.

⁶ Va. Dep't of Env't Quality, *VPDES Permit VA0060593 Danville – Northside WWTP Reissuance 2024*, app. D. at PDF pg. 11; EPA, *Per- and Polyfluoroalkyl Substances (PFAS) – Final PFAS National Primary Drinking Water Regulation* (Apr. 10, 2024), <https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas>.

⁷ Va. Dep't of Env't Quality, *VPDES Permit VA0060593 Danville – Northside WWTP Reissuance 2024*, app. D. at PDF pg. 33-34. Survey responses were due by April 29, 2022.

⁸ *Americas Facilities*, GOODYEAR CORPORATE, <https://corporate.goodyear.com/us/en/about/global/americas.html> (last visited May 17, 2024).

⁹ EPA, *METADATA FOR DATA SOURCES WITHIN PFAS ANALYTIC TOOLS 39* (Dec. 2023), <https://echo.epa.gov/system/files/PFAS%20Analytic%20Tools%20Metadata%202023-12-22-508.pdf> [hereinafter EPA PFAS METADATA].

¹⁰ *PFAS Handling Industry Sectors*, N.J. DEP'T OF ENV'T PROT., https://www.nj.gov/dep/srp/guidance/srra/pfas_handling_industry_sectors.pdf (Dec. 2019); Dana Bate, *DEP Names Bergey's Tires as Source of PFAS Contamination in Bucks County Private Wells*, WHYY (Nov. 13, 2019), <https://whyy.org/articles/dep-names-bergeys-tires-as-source-of-pfas-contamination-in-bucks-county-private-wells/>.

¹¹ *Production Plant in Chatham, Virginia, USA*, ARKEMA (Nov. 2023), https://www.arkema.com/files/live/sites/arkema_usa/files/downloads/arkema-in-the-americas/site-overviews/Chatham%20Fact%20Sheet.pdf.

EPA,¹² some states,¹³ and the Association of Drinking Water Administrators¹⁴ list as an industry that may use or discharge PFAS.

- Polynt Composites USA (SIC 2821; NAICS 325211) – Polynt manufactures composite materials used for bonding pastes, cleaning agents, gelcoats, and other compounds for a wide array of industries.¹⁵ EPA identifies these industry codes as associated with facilities that potentially use or discharge PFAS.¹⁶
- First Piedmont Corporation – Landfill (SIC 4953; NAICS 562212) – The Northside WWTP receives wastewater from the First Piedmont landfill. EPA lists solid waste landfills as a potential source of PFAS pollution.¹⁷ Landfills receive PFAS from sources such as industrial waste, sewage sludge, fire cleanup debris, contaminated soil, and consumer products.¹⁸ PFAS can become concentrated in landfill leachate¹⁹ and one study found that PFAS concentrations in the influent for wastewater treatment plants that received leachate were three times higher than in the influent for plants that did not receive leachate.²⁰
- Ascent Chemicals (SIC 2819, 2821, 2843; NAICS 325211, 325612) – Ascent Chemicals conducts batch organic synthesis for chemicals that are used in coatings, adhesives, polymers and elastomers, rubber and plastic additives, pulp and paper, textiles, oil and gas, personal care products, and water treatment.²¹ The company lists fire retardant chemicals among those it regularly manufactures.²² EPA,²³ several states,²⁴ and the

¹² EPA PFAS METADATA, *supra* note 9, at 38.

¹³ *Introduction to Per- and Polyfluoroalkyl Substances (PFAS)*, CONN. DEP'T OF ENERGY & ENV'T PROT., <https://portal.ct.gov/DEEP/Remediation--Site-Clean-Up/Contaminants-of-Emerging-Concern/Introduction-to-PFAS>, (June 15, 2023); *PFAS Handling Industry Sectors*, N.J. DEP'T OF ENV'T PROT., https://www.nj.gov/dep/srp/guidance/srra/pfas_handling_industry_sectors.pdf (Dec. 2019).

¹⁴ Ass'n of State Drinking Water Adm'rs, *Per- and Polyfluoroalkyl Substances (PFAS) Source Water Protection Guidance Project: Technical Appendix 12*, https://www.asdwa.org/wp-content/uploads/2020/05/ASDWA-PFAS-SWP-Technical-Appendix_FINAL3.pdf.

¹⁵ *Composites Products*, POLYNT GROUP, <https://www.polynt.com/chemical-products/composites/> (last visited May 17, 2024); *Application Sectors*, POLYNT GROUP, <https://www.polynt.com/application-area/> (last visited May 17, 2024).

¹⁶ EPA PFAS METADATA, *supra* note 9, at 39.

¹⁷ *Id.* at 40.

¹⁸ See Hanna Hamid et al., *Review of the Fate and Transformation of Per- and Polyfluoroalkyl Substances (PFASs) in Landfills*, 235 ENV'T POLLUTION 74, 74–75 (2018); Stephen Zemba, SANBORN HEAD, *PFAS Issues Facing Landfills: Presentation to the NH Solid Waste Working Group 3* (May 27, 2022), <https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/20220527-swwg-zemba-presentation.pdf>.

¹⁹ Hamid et al., *supra* note 18, at 75.

²⁰ Jason R. Masoner et al., *Landfill leachate contributes per-/poly-fluoroalkyl substances (PFAS) and pharmaceuticals to municipal wastewater*, 52 ENV'T SCI. & TECH. 1300–1311, 1305 (2020).

²¹ *Process Capabilities*, ASCENT CHEMICALS, <https://ascentchem.com/capabilities/> (last visited May 17, 2024); *Markets Served*, ASCENT CHEMICALS, <https://ascentchem.com/markets-served/> (last visited May 17, 2024).

²² *Our Products*, ASCENT CHEMICALS, <https://ascentchem.com/our-products/> (last visited May 17, 2024).

²³ EPA PFAS METADATA, *supra* note 9, at 37–39.

²⁴ *Introduction to Per- and Polyfluoroalkyl Substances (PFAS)*, CONN. DEP'T OF ENERGY & ENV'T PROT., <https://portal.ct.gov/DEEP/Remediation--Site-Clean-Up/Contaminants-of-Emerging-Concern/Introduction-to-PFAS>, (June 15, 2023); *PFAS Handling Industry Sectors*, N.J. DEP'T OF ENV'T PROT., https://www.nj.gov/dep/srp/guidance/srra/pfas_handling_industry_sectors.pdf (Dec. 2019).

Association of Drinking Water Administrators²⁵ have identified the industrial codes used by Ascent Chemicals as potential sources of PFAS pollution.

PFAS are a class of human-made chemicals that have been used in manufacturing since the 1940s.²⁶ They are used in the production of coatings for non-stick cookware, stain-resistant carpeting and upholstery, grease-resistant pizza boxes, and waterproof outdoor gear.²⁷ PFAS are found in numerous other consumer and industrial products, as well as in firefighting foam used at airports and military installations.²⁸

It is well established that PFAS are a threat to the health and safety of the public. Two of the most commonly studied PFAS, PFOA and PFOS, have been found to cause developmental effects to fetuses and infants, kidney and testicular cancer, liver malfunction, hypothyroidism, high cholesterol, ulcerative colitis, lower birth weight and size, obesity, decreased immune response to vaccines, reduced hormone levels and delayed puberty.²⁹ Additionally, based upon a review of the existing literature, it is thought that PFAS exposure—because of its effect on the immune system—can exacerbate the effects of COVID-19³⁰ and it may affect fertility.³¹ Studies show that many of these same health outcomes result from exposure to other types of PFAS.³²

Given these harms, on June 15, 2022, EPA released drinking water Health Advisory Levels (HALs) for two particularly harmful PFAS, PFOA and PFOS.³³ EPA's 2022 HAL for PFOA is equal to 0.004 ppt or 4 parts per quadrillion (ppq), while the 2022 HAL for PFOS is equal to 0.02 ppt or 20 ppq. For perspective, 1 ppq as an expression of time would equal approximately one second out of about 31.7 million years, which illustrates the magnitude of the threat posed from these pollutants even in extremely small quantities.

²⁵ Ass'n of State Drinking Water Adm'rs, *Per- and Polyfluoroalkyl Substances (PFAS) Source Water Protection Guidance Project: Technical Appendix 12*, https://www.asdwa.org/wp-content/uploads/2020/05/ASDWA-PFAS-SWP-Technical-Appendix_FINAL3.pdf.

²⁶ EPA, *Our Current Understanding of the Human Health and Environmental Risks of PFAS* (June 7, 2023), <https://www.epa.gov/pfas/our-current-understanding-human-health-and-environmental-risks-pfas>.

²⁷ See *id.*; AGENCY FOR TOXIC SUBSTANCES & DISEASE REGISTRY (ATSDR), *PFAS: AN OVERVIEW OF THE SCIENCE AND GUIDANCE FOR CLINICIANS ON PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) 3* (2019), https://www.atsdr.cdc.gov/pfas/docs/ATSDR_PFAS_ClinicalGuidance_12202019.pdf.

²⁸ EPA, *Our Current Understanding of the Human Health and Environmental Risks of PFAS* (June 7, 2023), <https://www.epa.gov/pfas/our-current-understanding-human-health-and-environmental-risks-pfas>; EPA PFAS METADATA, *supra* note 9, at 26–27.

²⁹ Blum et al., *The Madrid Statement on Poly- and Perfluoroalkyl Substances (PFASs)*, 123 ENV'T HEALTH PERSP. 5, A 107 (May 2015); EPA, *FACT SHEET ON PFOA & PFOS DRINKING WATER HEALTH ADVISORIES 2* (Nov. 2016), <https://bit.ly/37o3eWp>.

³⁰ See Lauren Brown, *Insight: PFAS, Covid-19, and Immune Response—Connecting the Dots*, BLOOMBERG LAW (July 13, 2020), <https://news.bloomberglaw.com/environment-and-energy/insight-pfas-covid-19-and-immune-response-connecting-the-dots>.

³¹ Nathan J. Cohen, *Exposure to Perfluoroalkyl Substances and Women's Fertility Outcomes in a Singaporean Population-Based Preconception Cohort*, 873 SCI. TOTAL ENV'T 162267 (2023).

³² ATSDR, *TOXICOLOGICAL PROFILE FOR PERFLUOROALKYLS, DRAFT FOR PUBLIC COMMENT 5–6, 25–26* (June 2018), <https://www.atsdr.cdc.gov/toxprofiles/tp200.pdf>.

³³ See, e.g., Press Release, EPA, *EPA Announces New Drinking Water Health Advisories for PFAS Chemicals, \$1 Billion in Bipartisan Infrastructure Law Funding to Strengthen Health Protections* (June 15, 2022), <https://www.epa.gov/newsreleases/epa-announces-new-drinking-water-health-advisories-pfas-chemicals-1-billion-bipartisan>.

On April 10, 2024, EPA announced its final national drinking water standards for six PFAS chemicals. The drinking water standards establish enforceable limits, called maximum contaminant levels (MCLs), on the concentration of certain PFAS in public drinking water systems. The MCLs for PFOA and PFOS are both 4 ppt, with maximum contaminant level goals (MCLGs) of 0 ppt.³⁴ The MCLs and MCLGs for PFHxS, PFNA, and HFPO-DA (commonly known as GenX chemicals) are 10 ppt each.³⁵ EPA also finalized a Hazard Index MCL to account for dose-additive health effects of mixtures that include any combination of PFHxS, HFPO-DA, PFNA, and PFBS.³⁶

PFAS are also harmful to the environment. They have been shown to harm fish,³⁷ amphibians,³⁸ reptiles,³⁹ mollusks,⁴⁰ and other aquatic invertebrates⁴¹—resulting in developmental and reproductive impacts, behavioral changes, adverse effects to livers, disruption to endocrine systems, and weakened immune systems.⁴² PFAS are extremely resistant to

³⁴ EPA, *Per- and Polyfluoroalkyl Substances (PFAS) – Final PFAS National Primary Drinking Water Regulation* (Apr. 10, 2024), <https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas>.

³⁵ *Id.*

³⁶ *Id.*

³⁷ Chen et al., *Perfluorobutanesulfonate Exposure Causes Durable and Transgenerational Dysbiosis of Gut Microbiota in Marine Medaka*, 5 ENV'T SCI. & TECH. LETTERS 731–38 (2018); Chen et al., *Accumulation of Perfluorobutane Sulfonate (PFBS) and Impairment of Visual Function in the Eyes of Marine Medaka After a Life-Cycle Exposure*, 201 AQUATIC TOXICOLOGY 1–10 (2018); Du et al., *Chronic Effects of Water-Borne PFOS Exposure on Growth, Survival and Hepatotoxicity in Zebrafish: A Partial Life-Cycle Test*, 74 CHEMOSPHERE 723–29 (2009); Hagenaaers et al., *Structure–Activity Relationship Assessment of Four Perfluorinated Chemicals Using a Prolonged Zebrafish Early Life Stage Test*, 82 CHEMOSPHERE 764–72 (2011); Huang et al., *Toxicity, Uptake Kinetics and Behavior Assessment in Zebrafish Embryos Following Exposure to Perfluorooctanesulphonic acid (PFOS)*, 98 AQUATIC TOXICOLOGY 139–47 (2010); Jantzen et al., *PFOS, PFNA, and PFOA Sub-Lethal Exposure to Embryonic Zebrafish Have Different Toxicity Profiles in terms of Morphometrics, Behavior and Gene Expression*, 175 AQUATIC TOXICOLOGY 160–70 (2016); Liu et al., *The Thyroid-Disrupting Effects of Long-Term Perfluorononanoate Exposure on Zebrafish (Danio rerio)*, 20 ECOTOXICOLOGY 47–55 (2011); Chen et al., *Multigenerational Disruption of the Thyroid Endocrine System in Marine Medaka after a Life-Cycle Exposure to Perfluorobutanesulfonate*, 52 ENV'T SCI. & TECH. 4432–39 (2018); Rotondo et al., *Environmental Doses of Perfluorooctanoic Acid Change the Expression of Genes in Target Tissues of Common Carp*, 37 ENV'T TOXICOLOGY & CHEM. 942–48 (2018).

³⁸ Ankley et al., *Partial Life-Cycle Toxicity and Bioconcentration Modeling of Perfluorooctanesulfonate in the Northern Leopard Frog (Rana pipiens)*, 23 ENV'T TOXICOLOGY & CHEM. 2745 (2004); Cheng et al., *Thyroid Disruption Effects of Environmental Level Perfluorooctane Sulfonates (PFOS) in Xenopus laevis*, 20 ECOTOXICOLOGY 2069–78 (2011); Lou et al., *Effects of Perfluorooctanesulfonate and Perfluorobutanesulfonate on the Growth and Sexual Development of Xenopus laevis*, 22 ECOTOXICOLOGY 1133–44 (2013).

³⁹ Guillette et al., *Blood Concentrations of Per- and Polyfluoroalkyl Substances Are Associated with Autoimmune-like Effects in American Alligators From Wilmington, North Carolina*, FRONTIER TOXICOLOGY 4:1010185 (Oct. 20, 2022).

⁴⁰ Liu et al., *Oxidative Toxicity of Perfluorinated Chemicals in Green Mussel and Bioaccumulation Factor Dependent Quantitative Structure-Activity Relationship*, 33 ENV'T TOXICOLOGY & CHEM. 2323–32 (2014); Liu et al., *Immunotoxicity in Green Mussels under Perfluoroalkyl Substance (PFAS) Exposure: Reversible Response and Response Model Development*, 37 ENV'T TOXICOLOGY & CHEM. 1138–45 (2018).

⁴¹ Houde et al., *Endocrine-Disruption Potential of Perfluoroethylcyclohexane Sulfonate (PFECES) in Chronically Exposed Daphnia magna*, 218 ENV'T POLLUTION 950–56 (2016); Liang et al., *Effects of Perfluorooctane Sulfonate on Immobilization, Heartbeat, Reproductive and Biochemical Performance of Daphnia magna*, 168 CHEMOSPHERE 1613–18 (2017); Ji et al., *Oxicity of Perfluorooctane Sulfonic Acid and Perfluorooctanoic Acid on Freshwater Macroinvertebrates (Daphnia magna and Moina macrocopia) and Fish (Oryzias latipes)*, 27 ENV'T TOXICOLOGY & CHEM. 2159 (2008); MacDonald et al., *Toxicity of Perfluorooctane Sulfonic Acid and Perfluorooctanoic Acid to Chironomus tentans*, 23 ENV'T TOXICOLOGY & CHEM. 2116 (2004).

⁴² See supra notes 37–41.

breaking down in the environment, can travel long distances, and bioaccumulate.⁴³ PFAS have been found in fish tissue across all 48 continental states,⁴⁴ and PFOS—a particularly harmful PFAS chemical—is one of the most prominent PFAS found in freshwater fish.⁴⁵ As a result, the primarily low-income and minority communities that rely heavily on subsistence fishing have been found to have elevated PFAS levels in their blood.⁴⁶ In fact, researchers have concluded that “[w]idespread PFAS contamination of freshwater fish in surface waters in the U.S. is likely a significant source of exposure to PFOS and potentially other perfluorinated compounds for all persons who consume freshwater fish, but especially for high-frequency freshwater fish consumers.”⁴⁷

II. The Clean Water Act requires DEQ to analyze effluent limits for PFAS.

A. DEQ must assess technology-based effluent limits for PFAS.

The Clean Water Act generally prohibits discharges of “any pollutant” to water bodies.⁴⁸ The National Pollutant Discharge Elimination System (NPDES) program—implemented in Virginia as the VPDES program—is a limited exception to that prohibition.⁴⁹ The Clean Water Act requires permitting agencies to, at the very least, evaluate technology-based effluent limits on the discharge of pollutants.⁵⁰ Technology-based effluent limits are “the minimum level of control that *must be imposed* in a permit.”⁵¹

As EPA has recognized, “technology-based limits aim to prevent pollution by requiring polluters to install and implement various forms of technology designed to reduce the pollution discharged into the nation’s waters.”⁵² Where EPA has not issued a national effluent limitation guideline for a particular industry,⁵³ permitting agencies must implement technology-based effluent limits on a case-by-case basis using their “best professional judgment.”⁵⁴ To carry out the case-by-case analysis for implementing technology-based effluent limitations, DEQ must

⁴³ ATSDR, *supra* note 32.

⁴⁴ Nadia Barbo, et al., *Locally Caught Freshwater Fish Across the United States Are Likely a Significant Source of Exposure to PFOS and Other Perfluorinated Compounds*, 220 ENV’T RES. 115165 3 (2023), available at <https://perma.cc/SB8F-C3Y6>.

⁴⁵ *Id.* at 4.

⁴⁶ Patricia A. Fair et al., *Perfluoralkyl Substances (PFASs) in Edible Fish Species from Charleston Harbor and Tributaries, South Carolina, United States: Exposure and Risk Assessment*, 171 ENV’T RES. 266, 273–75 (2019), <https://perma.cc/7976-XAVU>; Chloe Johnson, *Industrial chemicals in Charleston Harbor taint fish – and those who eat them*, POST & COURIER (June 4, 2022), <https://perma.cc/Z5TM-MB83>.

⁴⁷ Barbo, *supra* note 44 at 9.

⁴⁸ 33 U.S.C. § 1311(a).

⁴⁹ *Nat’l Ass’n of Home Builders v. Defs. of Wildlife*, 551 U.S. 644, 650 (2007).

⁵⁰ See 40 C.F.R. § 125.3(a); 33 U.S.C. § 1311.

⁵¹ 40 C.F.R. § 125.3(a) (emphasis added); see also Memorandum from Radhika Fox, Assistant Administrator, U.S. Env’t Prot. Agency (EPA), *Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs* 3 (Dec. 5, 2022), https://www.epa.gov/system/files/documents/2022-12/NPDES_PFAS_State%20Memo_December_2022.pdf [hereinafter EPA PFAS NPDES Guidance].

⁵² EPA, TECHNICAL ANALYSIS FOR DETERMINATION OF TECHNOLOGY-BASED PERMIT LIMITS FOR THE GUAYNABO DRINKING WATER TREATMENT FACILITY NPDES NUMBER PR0022438 2-1 (Mar. 23, 2009), <https://bit.ly/3hLMzAY> [hereinafter Guaynabo TBEL Analysis].

⁵³ 33 U.S.C. § 1314(b).

⁵⁴ 40 C.F.R. § 125.3; see also 33 U.S.C. § 1342(a)(1)(B); 9 VAC 25-31-210, 220; EPA NPDES PFAS Guidance, *supra* note 51, at 3–4.

consider appropriate technology for the category of point source and any unique factors related to the applicant.⁵⁵

In its December 2022 guidance, EPA confirmed that technology-based limits should be calculated for PFAS.⁵⁶ In the case of PFAS pollution, effective treatment technology is available to remove PFAS from wastewater discharges. At the Chemours Fayetteville Works facility in North Carolina, the Chemours Company reduced PFAS concentrations from as high as 345,000 ppt in a creek contaminated by groundwater beneath the facility to nearly nondetectable levels by installing treatment technology.⁵⁷ And a 2018 report from the Interstate Technology Regulatory Council found that granular activated carbon (GAC) has been used to remove PFAS “for over 15 years at more than 45 military installations, as well as several industrial sites and publicly owned treatment works.”⁵⁸

The permitting documents released for review contain no indication that DEQ has undertaken case-by-case analysis to assess technology-based effluent limits for PFAS at the Northside WWTP. DEQ’s failure to assess technology-based limits is contrary to the Clean Water Act.

B. DEQ must assess water quality-based effluent limits for PFAS.

As EPA has explained, technology-based limits “are developed independently of the potential impact of a discharge on the receiving water, which is addressed through water quality standards and water quality-based effluent limitations.”⁵⁹ If the Northside WWTP’s discharge would violate water quality standards even with technology-based effluent limits for PFAS in place, then water quality-based effluent limits must also be included in the permit.⁶⁰

The State Water Control Law requires that VPDES permits include conditions to “achieve water quality standards established under the law and [section] 303 of the [Clean Water Act], *including state narrative criteria for water quality.*”⁶¹ The obligation to create water quality-based limits “may not be waived,” and requires DEQ to incorporate a permit limit protective of water quality standards regardless of “treatability” or analytical method detection levels.⁶²

⁵⁵ See Guaynabo TBEL Analysis, *supra* note 52, at 2-1 (applying 40 C.F.R. § 125.3).

⁵⁶ EPA NPDES PFAS Guidance, *supra* note 51, at 2.

⁵⁷ See Chemours Outfall 003, NPDES NO. NC0089915 Discharge Monitoring Reports (2020-2022), available at <https://perma.cc/8YND-XT5M>; Ted Schoenberg, Parsons, Old Outfall 002 GAC Pilot Study Interim Results Report, Chemours Fayetteville, North Carolina Facility, at 4–5 (Aug. 5, 2019), <https://perma.cc/DU3Y-25AW>; Parsons, Old Outfall 002 Surface Water Sampling Results (Sept. 30, 2019) at Table 1, <https://perma.cc/6BYQ-RNXZ>.

⁵⁸ INTERSTATE TECH. REGULATORY COUNCIL, PFAS—PER- AND POLYFLUOROALKYL SUBSTANCES: 12 TREATMENT TECHNOLOGIES, <https://pfas-1.itrcweb.org/12-treatment-technologies/> (last updated Sept. 2023) (citing E. Forrester and J. Matthis, *Treatment Solutions for PFAS Removal: Evaluating Total Cost* (2018)).

⁵⁹ EPA, NPDES PERMIT WRITERS’ MANUAL 5-1 (Sept. 2010), <https://bit.ly/2YeeAt3>.

⁶⁰ 40 C.F.R. §§ 122.44(d)(1)(i), 125.3(f); *see also* 33 U.S.C. § 1311(b)(1)(C); 9 VAC 25-31-220(D)(1)(a) (stating that effluent “limitations must control all pollutants or pollutant parameters . . . which the board determines are or may be discharged at a level which will cause, or have the reasonable potential to cause, or contribute to an excursion above any Virginia water quality standard, including Virginia narrative criteria for water quality” in VPDES permits).

⁶¹ 9 VAC 25-31-220(D)(1) (emphasis added).

⁶² EPA, CENTRAL TENETS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITTING PROGRAM 3, <https://www.epa.gov/sites/default/files/2015-09/documents/tenets.pdf>.

Importantly, monitoring or data collection requirements “may not be substituted” for water quality-based permit limits.⁶³ EPA guidance confirms that compliance with state water quality standards is relevant when assessing PFAS discharges and directs that a “permit writer should apply” numeric or narrative water quality standards for PFAS in their permitting decisions.⁶⁴

Although Virginia does not have numeric water quality standards for PFAS, state waters must “be free from substances attributable to sewage, industrial waste, or other waste in concentrations, amounts, or combinations which contravene established standards or interfere directly or indirectly with designated uses of such water or which are inimical or harmful to human, animal, plant, or aquatic life” under Virginia’s general water quality criteria.⁶⁵ Specific substances to be controlled include “toxic substances (including those which bioaccumulate).”⁶⁶ Virginia’s surface water criteria also require that instream water quality conditions “not be acutely or chronically toxic except as allowed in 9 VAC 25-260-20 B (mixing zones).”⁶⁷ It is evident that, even in small concentrations, PFAS are detrimental to human, animal, and aquatic life, and that they bioaccumulate in organisms.

If PFAS in the Northside WWTP’s effluent would not be controlled by technology-based effluent limits, DEQ must also apply appropriate water quality-based effluent limits to ensure that the treatment plant’s discharges do not violate Virginia’s water quality standards.

III. DEQ must incorporate PFAS conditions recommended by EPA in the Northside WWTP VPDES permit.

A. DEQ must require quarterly monitoring for PFAS.

EPA recommended that the Northside WWTP permit include a requirement for quarterly effluent, influent, and biosolids monitoring using method 1633 and method 1621⁶⁸ and 40 CFR 136 does not prohibit DEQ is from requiring the use of these methods.⁶⁹ North Carolina has already implemented quarterly PFAS monitoring requirements using these methods in permits of known or suspected PFAS dischargers. (Attachment 1, Special Condition A.(10.)). DEQ must implement similar monitoring requirements in the Northside WWTP permit.

B. DEQ must include pretreatment requirements related to PFAS.

DEQ also has tools and obligations under the Clean Water Act’s pretreatment program to control PFAS pollution.⁷⁰ The pretreatment program governs the discharge of industrial wastewater to treatment plants and is intended to place the burden of treating polluted discharges on the entity that creates the pollution, rather than on the public. By setting PFAS limits and

⁶³ *Id.*

⁶⁴ EPA PFAS NPDES Guidance, *supra* note 51, at 3–4.

⁶⁵ 9 VAC 25-260-20(A).

⁶⁶ *Id.*

⁶⁷ 9 VAC 25-260-140(A).

⁶⁸ Va. Dep’t of Env’t Quality, *VPDES Permit VA0060593 Danville – Northside WWTP Reissuance 2024*, app. D. at PDF pg. 3.

⁶⁹ *See e.g.*, U.S. Env’t Prot. Agency, *Approved CWA Test Methods: Questions and Answers* (last updated Oct. 18, 2023), <https://www.epa.gov/cwa-methods/approved-cwa-test-methods-questions-and-answers>; U.S. Env’t Prot. Agency, *CWA Analytical Methods for Per- and Polyfluorinated Alkyl Substances (PFAS)* (last updated Apr. 18, 2024), <https://www.epa.gov/cwa-methods/cwa-analytical-methods-and-polyfluorinated-alkyl-substances-pfas>.

⁷⁰ 40 C.F.R. § 403.8.

conditions in the Northside WWTP VPDES permit, DEQ can ensure that the Northside WWTP properly regulates its industrial users so it does not release PFAS into the environment.

Federal and Virginia pretreatment regulations include a general prohibition against users introducing any pollutant into a publicly owned treatment works that would “cause pass through, interference or violation of water quality standards,” and this general prohibition applies “whether or not the user is subject to other national pretreatment standards or any national, state, or local pretreatment requirements.”⁷¹ “Pass through” occurs when an industrial discharge causes the treatment plant to violate its own NPDES permit,⁷² including standard conditions such as the requirement that permittees “take all reasonable steps to minimize or prevent any discharge or sludge use” that has a “reasonable likelihood of adversely affecting human health or the environment.”⁷³ “Interference” occurs when a discharge disrupts the treatment plant’s operation or its sludge use or disposal and results a violation the treatment plant’s NPDES permit or other applicable laws.⁷⁴

Most wastewater treatment techniques do not effectively remove PFAS,⁷⁵ and some wastewater treatment process can even degrade and transform PFAS precursors into detectable PFAS.⁷⁶ Violating the prohibitions on pass through or interference constitutes a violation of the Clean Water Act’s pretreatment standards and requirements.⁷⁷

EPA specifically recommended that DEQ incorporate PFAS-related requirements into Northside WWTP’s pretreatment program.⁷⁸ EPA’s recommendation is also consistent with DEQ’s own risk-based strategy to identify PFAS sources, which includes “requir[ing] municipalities to survey their industrial users on past and current use of PFAS compounds,” “requir[ing] municipal Publicly Owned Treatment Works to conduct indirect discharge monitoring,” and “requir[ing] at least semi annual monitoring of municipal and industrial VPDES permittees as permits come up for renewal.”⁷⁹ North Carolina has also already implemented these conditions into WWTP NPDES permits. (Attachment 1, Special Condition A.(10.)).

⁷¹ 9 VAC 25-31-770(A)(1); see 40 C.F.R. § 403.5.

⁷² Pass through is defined as “a discharge which exits the [treatment works] into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the [treatment works’] NPDES permit (including an increase in the magnitude or duration of a violation).” 40 C.F.R. § 403.3(p).

⁷³ *Id.* § 122.41(d).

⁷⁴ *Id.* § 403.3(k).

⁷⁵ Hamid et al., *Review of the Fate and Transformation of Per- and Polyfluoroalkyl Substances (PFASs) in Landfills*, 235 ENV’T POLLUTION 74, 75 (2018).

⁷⁶ VA. WATER RES. RESEARCH CTR., EMERGING CONTAMINANTS THE WATERS OF VIRGINIA: 2019 REPORT OF THE ACADEMIC ADVISORY COMMITTEE FOR VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY 17–19 (Oct. 2019), <https://bit.ly/3fsg6Cc>; Eriksson et al., *Contribution of Precursor Compounds to the Release of Per- and Polyfluoroalkyl Substances (PFASs) from Waste Water Treatment Plants (WWTPs)*, 61 J. ENV’T SCI. 80 (CHINA) (2017).

⁷⁷ 40 C.F.R. § 403.5(a)(1).

⁷⁸ Va. Dep’t of Env’t Quality, *VPDES Permit VA0060593 Danville – Northside WWTP Reissuance 2024*, app. D. at PDF pg. 3-4.

⁷⁹ Va. Dep’t of Health & Va. Dep’t of Env’t Quality, *PFAS 101 – A Primer on PFAS for Public Health Professionals* 106 (May 5, 2023), https://www.vdh.virginia.gov/content/uploads/sites/8/2023/05/VDH-PFAS-101-PPT_Combined_FINAL-4-25.pdf.

i. Industrial user inventory

Under the pretreatment requirements, treatment plants are required to know what waste they receive from industrial users.⁸⁰ EPA has confirmed that this requirement extends to pollutants that are not conventional or listed as toxic, like PFAS.⁸¹ Treatment plants must instruct their industrial users to identify their pollutants in an industrial waste survey⁸² and to disclose “effluent data,” including for internal waste streams, necessary to evaluate pollution controls when applying for a pretreatment permit.⁸³ Significant industrial users are further required to provide information on “[p]rincipal products and raw materials . . . that affect or contribute to the [significant industrial user’s] discharge.”⁸⁴

EPA explicitly recommended that the Northside WWTP VPDES “permit [include] the requirement to conduct a survey to identify and locate all possible [industrial users] that might be subject to the pretreatment program and identify the character and volume of pollutants contributing to the POTW by the [industrial users]” and that the inventory “include all IUs in industry categories expected or suspected of PFAS discharges.”⁸⁵

ii. Best management practices & pollution prevention

Once sources are identified, EPA recommended that Northside WWTP work to develop local limits for PFAS or impose best management practices to control the pollution at the source.⁸⁶ Other states are already implementing these requirements as part of their NPDES programs. North Carolina NPDES permits, for example, require wastewater treatment plants to use their pretreatment authority to identify significant industrial users in industry categories known or suspected to discharge PFAS, require quarterly monitoring for PFAS, update their industrial wastewater surveys to account for PFAS discharges, and implement best management practices to reduce PFAS entering the wastewater treatment facility.⁸⁷

iii. Pretreatment conditions in the Northside WWTP VPDES permit

Consistent with EPA’s recommendations and DEQ’s own risk-based strategy, DEQ must include conditions in the Northside WWTP VPDES permit to require the treatment plant to: (1) update its industrial user survey and determine all industrial sources of PFAS, (2) implement regular PFAS monitoring requirements using method 1633 and method 1621, and (3) control any industrial sources of PFAS through its pretreatment program,⁸⁸ including by controlling contributions from industrial users through “[p]ermit, order, or other similar means” and the

⁸⁰ *Id.* § 403.8(f)(2).

⁸¹ See EPA, PFAS STRATEGIC ROADMAP: EPA’S COMMITMENTS TO ACTION 2021-2024 14 (Oct. 2021), <https://perma.cc/LK4U-RLBH>.

⁸² 40 C.F.R. § 403.8(f)(2)(ii); EPA, INTRODUCTION TO THE NATIONAL PRETREATMENT PROGRAM 4-3 (Jun. 2011), https://www.epa.gov/sites/default/files/2015-10/documents/pretreatment_program_intro_2011.pdf.

⁸³ EPA, INDUSTRIAL USER PERMITTING GUIDANCE MANUAL at 4-2 to 4-3 (2012), https://www.epa.gov/sites/default/files/2015-10/documents/industrial_user_permitting_manual_full.pdf.

⁸⁴ 40 C.F.R. § 122.21(j)(6)(ii)(C).

⁸⁵ Va. Dep’t of Env’t Quality, *VPDES Permit VA0060593 Danville – Northside WWTP Reissuance 2024*, app. D. at PDF pg. 3-4.

⁸⁶ *Id.*

⁸⁷ Attachment 1, Special Condition A.(10.).

⁸⁸ 40 C.F.R. § 403.8(f)(1).

application of effluent limits and/or local limits,⁸⁹ requiring the installation of technology by industrial users,⁹⁰ or other means under the Clean Water Act pretreatment program.

IV. DEQ cannot rely on an upcoming “PFAS assessment” process to satisfy its obligations under the Clean Water Act.

In DEQ’s response to EPA’s recommendations on the Northside WWTP VPDES permit, DEQ asserts that it will only “incorporate PFAS provisions in accordance with DEQs (sic) implementation program once developed.”⁹¹ DEQ, however, already has the authority under the Clean Water Act to take all of the actions outlined in this letter. It is not clear what “PFAS implementation program” this response refers to, but to the extent it is referencing the “PFAS assessment” process prescribed by Chapters 316 and 343 of the 2024 Virginia Acts of Assembly (Attachment 2)—which is focused on *identifying* sources of PFAS pollution in drinking water sources, not controlling them—those actions will not satisfy DEQ’s obligations to control PFAS pollution under the Clean Water Act.

V. Conclusion

DEQ must evaluate whether technology- and water quality-based effluent limits are needed in the Northside WWTP VPDES permit to control PFAS discharges and include requirements for quarterly PFAS monitoring. The Northside WWTP VPDES permit should also require the treatment plant to amend its pretreatment program to update its industrial user survey to determine all industrial sources of PFAS, implement regular PFAS monitoring requirements for industrial users, and control through its pretreatment program any industrial sources of PFAS that would flow through the treatment plant. Finally, due to the late disclosure of information related to the discharge of PFAS from the treatment plant, we urge DEQ to extend the comment period and hold a public hearing for this draft permit to give the public the opportunity to provide meaningful input.

Sincerely,



Carroll Courtenay
Katherine Coffey
Southern Environmental Law Center

Tiffany Haworth
Dan River Basin Association

David Sligh
Wild Virginia

⁸⁹ *Id.* §§ 403.8(f)(1)(iii); 403.5(d).

⁹⁰ *Id.* § 403.8(f)(1)(iv).

⁹¹ Va. Dep’t of Env’t Quality, *VPDES Permit VA0060593 Danville – Northside WWTP Reissuance 2024*, app. D. at PDF pg. 5.

cc: Kathryn Perszyk, Director, Land Protection and Revitalization Division, DEQ,
Kathryn.Perszyk@deq.virginia.gov

Jennifer Fulton, Acting Chief, Clean Water Branch, EPA Mid-Atlantic Region,
fulton.jennifer@epa.gov

Attachment 1: N.C. Dep't of Env't Quality, Final NPDES Permit Renewal for McAlpine
Creek Wastewater Management Facility (Oct. 27, 2023)

Attachment 2: Chapters 316 and 343 of the 2024 Virginia Acts of Assembly

ATTACHMENT 1



NORTH CAROLINA
Environmental Quality

October 27, 2023

ROY COOPER

Governor

ELIZABETH S. BISER

Secretary

RICHARD E. ROGERS, JR.

Director

Mr. Joseph Lockler, Operations Chief
Charlotte Water
5100 Brookshire Boulevard
Charlotte, North Carolina 28216

Subject: Final NPDES Permit Renewal
Permit NC0024970
McAlpine Creek WWMF
Mecklenburg County
Grade IV Biological WPCS
SIC Code 4952

Dear Mr. Lockler:

Division personnel have reviewed and approved your application for renewal of the subject permit. Accordingly, we are forwarding the attached NPDES permit. This permit is issued pursuant to the requirements of North Carolina General Statute 143-215.1 and the Memorandum of Agreement between North Carolina and the U.S. Environmental Protection Agency dated October 15, 2007 (or as subsequently amended).

Please note that the receiving stream is listed as impaired for benthos and fish community on the North Carolina 2022 303(d) Impaired Waters List. Addressing impaired waters is a high priority with the Division, and instream data will continue to be evaluated. If there is noncompliance with permitted effluent limits and stream impairment can be attributed to your facility, then mitigative measures may be required.

The following changes were made to the draft permit sent to you on May 16, 2023:

- Special Condition A.(3.)(c.) has been revised to indicate the appropriate NPDES permit number for the Irwin Creek WWTP.
- Special Condition A.(4.)(c.) has been revised for clarity and to indicate the appropriate NPDES permit number for the Irwin Creek WWTP.
- To assess the industrial contribution of PFAS to the McAlpine Creek WWMF and assess levels of PFAS compounds in the facility effluent, Special Condition A.(10.) has been revised. Please review each paragraph carefully.

Please note that the Division considers "Between 6.0 and 9.0 standard units" for pH permit limitations to mean greater than or equal to 6.0 standard units and less than or equal to 9.0 standard units for compliance purposes.

The final permit maintains the following significant changes identified in the letter sent on May 16, 2023:

- Based on the reasonable potential analysis (RPA) showing no reasonable potential to violate state water quality standards, the monitoring requirements for total silver, dibromochloromethane and total phenolic compounds have been removed from the permit [See A.(1)].
- For calculation of total nitrogen and total phosphorous loadings, monitoring requirements for total monthly flow, TKN and Nitrate + Nitrite have been added to the permit [See A.(1.)].



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919.707.9000

- Total Phosphorous reporting requirements have been further broken down into total phosphorous concentration, daily loading, monthly loading, 12-month loading and combined 12-month loading [See A.(1.)].
- Language has been added to Special Condition A.(7.) Combined Limitation for Total Phosphorous and A.(8.) Calculation and Reporting of Total Phosphorous Loads to further clarify the requirements.
- Based on review of existing total residual chlorine requirements (TRC), the weekly average TRC limit has been removed and the daily maximum TRC limit has been revised [See A.(1.)].
- The statement, “There shall be no discharge of floating solids or visible foam in other than trace amounts,” has been added back into the permit [See A.(1.)].
- Based on instream data review reporting observed levels of fecal coliform downstream of the Irwin Creek WWTP at heightened concentrations, instream fecal coliform monitoring has been added to the permit upstream in Irwin Creek and downstream in Sugar Creek [See Conditions A.(3.) and A.(4.)].
- Based on the 2022 Integrated Report identifying turbidity as exceeding criteria in the receiving stream, instream turbidity monitoring has been added to the permit upstream in Irwin Creek and downstream in Sugar Creek [See Conditions A.(3.) and A.(4.)].
- As the facility receives complex waste streams from various industrial users with the potential to discharge 1,4-dioxane via their pretreatment program and the facility discharges above the NC/SC state border, monthly monitoring for 1,4-dioxane as well as a 1,4-dioxane reopener condition have been added to the permit. After a 24-month sampling period, the Permittee may request the Division conduct a review of submitted data for assessment and approval of a 1,4-dioxane monitoring frequency reduction from monthly to quarterly [See A.(1.) and Special Condition A.(11.)].
- Some of the wording has changed in Special Condition A.(6.), Chronic Toxicity Permit Limit, please review each paragraph carefully.
- Special Condition A.(9.) has been modified to include the specific three years in which the Effluent Pollutant Scan shall be performed (2025, 2026, and 2027). In addition, at the end of the Special Condition, 2nd species Toxicity Testing Requirements for municipal permit renewals per Federal Regulations [40 CFR 122.21(j)(5)] have been added.
- A notation was made concerning the Electronic Reporting Rule – NPDES Electronic Reporting Rule – Phase 2 Extension. EPA extended the Phase 2 deadline to December 21, 2025.
- Federal regulations require electronic submittal of all discharge monitoring reports (DMRs) and program reports. The requirement to continue reporting discharge monitoring data electronically using the NC DWR’s Electronic Discharge Monitoring Report (eDMR) internet application has been added to your NPDES permit [See Special Condition A.(13.)].

If any parts, measurement frequencies or sampling requirements contained in this permit are unacceptable to you, you have the right to an adjudicatory hearing upon written request within thirty (30) days following receipt of this letter. This request must be in the form of a written petition, conforming to Chapter 150B of the North Carolina General Statutes, and filed with the Office of Administrative Hearings (6714 Mail Service Center, Raleigh, North Carolina 27699-6714). Unless such demand is made, this decision shall be final and binding.

Pretreatment updates in response to NPDES permit renewal:

- On July 1, 2024, 180 days after the effective date of this NPDES permit renewal, the City is required to submit to the Division a written technical evaluation of the need to revise local limits (i.e., an updated IWS/HWA-AT/L-STMP, or documentation of why is not needed). This action may include revising, updating, or adding to the list of SIUs regardless of timeframe.
 - Submit the updated Long-Term Monitoring Plan (LTMP)
 - If there are new industries within the service area, submit an updated Industrial Waste Survey (IWS)
 - Review pollutants of concern (POCs) and update the LTMP to reflect pollutants in industrial user permits (IUPs) and sludge management permit.



- As part of the local limits assessment, please submit the updated Headworks Analysis (HWA).
- For additional pretreatment actions related to PFAS, see Special Condition A.(10.) PFAS Monitoring Requirements.

The NPDES standard conditions (Parts II, III, and IV) are the same as in your current permit except that agency and division names have been updated. The latest version is available at <https://bit.ly/3k5NFaL> and can be viewed online or downloaded as a PDF file.

Please note that this permit is not transferable except after notice to the Division. The Division may require modification or revocation and reissuance of the permit. This permit does not affect the legal requirements to obtain other permits which may be required by the Division of Water Resources or any other Federal, State, or Local governmental regulations.

If you have any questions concerning this permit, please contact Nick Coco at (919) 707-3609 or via email at nick.coco@deq.nc.gov.

Sincerely,

DocuSigned by:

C464531431644FE...
for Richard E. Rogers, Jr., Director
Division of Water Resources, NCDEQ

Hardcopy: NPDES Files
Central Files
Ecopy: US EPA Region 4
DWR/Mooresville Regional Office/Water Quality/Andrew Pitner and Wes Bell
DWR/Aquatic Toxicology Branch/Cindy Moore and Molly Nicholson
DWR/Municipal Permitting Unit/Keyes McGee
SCDHEC/Brenda Green
SELCH/Hannah Nelson



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

PERMIT

TO DISCHARGE WASTEWATER UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
(NPDES)

In compliance with the provisions of North Carolina General Statute 143-215.1, other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission, and the Federal Water Pollution Control Act, as amended,

Charlotte Water

is hereby authorized to discharge wastewater from a facility located at the

McAlpine Creek Wastewater Management Facility (WWMF)

12701 Lancaster Highway
Pineville
Mecklenburg County

to receiving waters designated as McAlpine Creek in the Catawba River Basin

in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, III and IV hereof.

This permit shall become effective..... January 1, 2024.

This permit and authorization to discharge shall expire at midnight on June 30, 2028.

Signed this day October 27, 2023.

DocuSigned by:

Michael Montebello
C464531431644FE...

for Richard E. Rogers, Jr., Director
Division of Water Resources
By Authority of the Environmental Management Commission

SUPPLEMENT TO PERMIT COVER SHEET

All previous NPDES Permits issued to this facility, whether for operation or discharge are hereby revoked, and as of this issuance, any previously issued permit bearing this number is no longer effective. Therefore, the exclusive authority to operate and discharge from this facility arises under the permit conditions, requirements, terms, and provisions included herein.

Charlotte Water

is hereby authorized to:

1. Continue to operate and maintain McAlpine Creek WWMF, an existing 64.0 MGD facility consisting of the following components :
 - Flow equalization
 - Screening
 - Grit removal
 - Primary clarifiers
 - Aeration basins
 - Secondary clarifiers
 - Biological and chemical phosphorous removal
 - Alkaline addition for nitrification
 - Chlorination
 - Dechlorination
 - Anaerobic sludge digestion
 - Centrifuges and gravity sludge thickeners
 - Rapid sand filters

2. Discharge from said treatment works at the location specified on the attached map via Outfall 001 into McAlpine Creek currently classified C waters in the Catawba River Basin and 03050103 HUC.

PART I

A.(1.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS [64.0 MGD]

[15A NCAC 02B .0400 et seq., 15A NCAC02B .0500 et seq.] Grade IV

Biological Water Pollution Control System [15A NCAC 08G .0302]

- (a.) During the period beginning on the effective date of the permit and lasting until permit expiration, the permittee is authorized to discharge treated municipal and industrial wastewater from Outfall 001. Such discharges shall be limited and monitored¹ by the permittee as specified below:

PARAMETER <i>Parameter Code</i>	EFFLUENT LIMITS			MONITORING REQUIREMENTS		
	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location
Flow <i>50050</i>	64.0 MGD			Continuous	Recording	Influent or Effluent
Total Monthly Flow (MG) <i>82220</i>	Monitor and Report			Monthly	Recorded or Calculated	Influent or Effluent
CBOD, 5-day (20°C) ² (April 1 -October 31) <i>80082</i>	4.0 mg/L	6.0 mg/L		2/Week ³	Composite	Influent and Effluent
CBOD, 5-day (20°C) ² (November 1- March 31) <i>80082</i>	8.0 mg/L	12.0 mg/L		2/Week ³	Composite	Influent and Effluent
Total Suspended Solids ² <i>CO530</i>	15.0 mg/L	22.5 mg/L		2/Week ³	Composite	Influent and Effluent
NH ₃ as N (April 1 -Oct 31) <i>CO610</i>	1.0 mg/L	3.0 mg/L		2/Week ³	Composite	Effluent
NH ₃ as N (Nov 1- Mar 31) <i>CO610</i>	1.9 mg/L	5.7 mg/L		2/Week ³	Composite	Effluent
Fecal Coliform (geometric mean) <i>31616</i>	200/100 mL	400/100 mL	1000/ 100 mL	2/Week ³	Grab	Effluent
pH <i>00400</i>	Between 6.0 and 9.0 standard units			Daily	Grab	Effluent
Dissolved Oxygen <i>00300</i>	Daily Average ≥ 6.0 mg/L			Daily	Grab	Effluent
Conductivity (µmhos/cm) <i>00094</i>	Monitor and Report			Daily	Grab	Effluent
Temperature (°C) <i>00010</i>	Monitor and Report			Daily	Grab	Effluent
Total Residual Chlorine ⁴ <i>50060</i>			17 µg/L	Daily	Grab	Effluent
Total Nitrogen (NO ₂ +NO ₃ +TKN) (mg/L) <i>CO600</i>	Monitor and Report			Monthly	Calculated	Effluent
TKN (mg/L) <i>00625</i>	Monitor and Report			Monthly	Composite	Effluent
NO ₃ -N + NO ₂ -N (mg/L) <i>00630</i>	Monitor and Report			Monthly	Composite	Effluent
Total Phosphorus (mg/L) <i>CO665</i>	Monitor and Report			Monthly	Composite	Effluent
Daily TP Load ^{5,7} <i>QD665</i>	1,067 lb/day			Monthly	Calculated	Effluent
Monthly TP Load (lb/mo) ^{5,7} <i>QM665</i>	Monitor and Report			Monthly	Calculated	Effluent
12-Month TP Load (lb/yr) ^{5,7} <i>QY665</i>	Monitor and Report			Monthly	Calculated	Effluent
Combined 12-Month TP Load (lb/day) ^{6,7} <i>RA665</i>	See Conditions A.(7) and A.(8)			Monthly	Calculated	Effluent
Chronic Toxicity ⁸ <i>TGP3B</i>	Monitor and Report			Quarterly	Composite	Effluent
Hardness -Total as CaCO ₃ (mg/L) <i>00900</i>	Monitor and Report			Quarterly	Composite	Effluent
PFAS <i>variable</i>	Footnote 9			Footnote 9	Grab	Effluent
1,4-Dioxane (µg/L) ¹⁰ <i>82388</i>	Monitor and Report			Monthly ¹⁰	Grab	Effluent
Effluent Pollutant Scan <i>NC01</i>	Monitor and Report			Footnote 11	Footnote 11	Effluent

Footnotes:

1. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. See Special Condition A.(13.).
2. The monthly average effluent CBOD5 and Total Suspended Solids concentrations shall not exceed 15% of the respective influent value (85% removal).

Footnotes continue on the next page.

Footnotes continued from A.(1.) Effluent Limitations and Monitoring Requirements [64.0 MGD]:

3. Twice per week sampling must occur on any two non-consecutive days during the calendar week.
4. The facility shall monitor TRC when using chlorination for disinfection. The Division shall consider all effluent total residual chlorine values reported below 50 µg/l to be in compliance with the permit. However, the permittee shall continue to record and submit all values reported by a North Carolina certified laboratory (including field certified), even if these values fall below 50 µg/l.
5. The requirements for Monthly TP Load (lb/mo, QM665), Daily TP Load (lb/day, QD665), and 12-Month TP Load (lb/yr, QY665) apply to discharges from this McAlpine Creek WWMF. These parameters are defined in Condition A.(8) of this permit.
6. The Permittee is also subject to a Combined TP Load limit (lb/day, RA665) on the combined discharges from the McAlpine Creek, Sugar Creek, and Irwin Creek facilities in accordance with Conditions A.(7.) and A.(8.).
7. All TP Load values shall be calculated and reported as specified in this Condition and Conditions A.(7.) and A.(8.).
8. Chronic Toxicity (*Ceriodaphnia dubia*) P/F at 90% with testing in March, June, September, and December. See Special Condition A.(6.).
9. See Special Condition A.(10.).
10. Samples will be analyzed and reported using sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR part 136 for the analysis of pollutants or pollutant parameters. After a 24-month sampling period, the Permittee may request the Division conduct a review of submitted data for assessment and approval of a 1,4-dioxane monitoring frequency reduction from monthly to quarterly.
11. The permittee shall perform three effluent pollution scans during the term of this permit. See Special Condition A.(9.).

(b.) There shall be no discharge of floating solids or visible foam in other than trace amounts.

A.(2.) MCALPINE CREEK INSTREAM MONITORING REQUIREMENTS

[15A NCAC 02B.0500 et seq.]

- (a.) During the period beginning on the effective date of the permit and lasting until expiration, the Permittee shall monitor McAlpine Creek as specified below:

PARAMETER <i>Parameter Code</i>	MONITORING REQUIREMENTS		
	Measurement Frequency	Sample Type	Sample Location ²
Dissolved Oxygen (mg/L) 00300	Variable ¹	Grab	MC1 and MC2
Temperature (°C) 00010	Variable ¹	Grab	MC1 and MC2
Conductivity (µmhos/cm) 00094	Variable ¹	Grab	MC1 and MC2
Total Copper (µg/L) 01042	Quarterly	Grab	MC1 and MC2
Hardness- Total as CaCO ₃ (mg/L) 00900	Quarterly	Grab	MC1

Footnotes:

1. Variable = Weekly (June 1 – September 30) and monthly (October 1 – May 31)
2. Instream sampling locations: MC1 =McAlpine Creek, upstream of McAlpine Creek WWTP, and MC2= McAlpine Creek, downstream of confluence with McMullen Creek at SC 2964.

- (b.) It is recommended that instream monitoring for sampling locations IC1, SC1, SC2, SC3, SC4, SC5, LSC1, LSC3, MC1 and MC2 be conducted during the same day or on consecutive days.

A.(3.) IRWIN CREEK INSTREAM MONITORING REQUIREMENTS

[15A NCAC 02B.0500 et seq.]

- (a.) During the period beginning on the effective date of the permit and lasting until expiration, the Permittee shall monitor Irwin Creek as specified below:

PARAMETER <i>Parameter Code</i>	MONITORING REQUIREMENTS		
	Measurement Frequency	Sample Type	Sample Location ²
Dissolved Oxygen (mg/L) 00300	Variable ¹	Grab	IC1
Temperature (°C) 00010	Variable ¹	Grab	IC1
Conductivity (µmhos/cm) 00094	Variable ¹	Grab	IC1
Fecal Coliform (#/100mL) 31616	Variable ¹	Grab	IC1
Turbidity (NTUs) 00070	Variable ¹	Grab	IC1
Total Copper (µg/L) 01042	Quarterly	Grab	IC1
Total Chromium (µg/L) 01034	Quarterly	Grab	IC1
Hardness- Total as CaCO ₃ (mg/L) 00900	Quarterly	Grab	IC1

Footnotes:

1. Variable = Weekly (June 1 – September 30) and monthly (October 1 – May 31)
2. Instream sampling locations: IC1= Irwin Creek, upstream of Irwin Creek WWTP

- (b.) It is recommended that instream monitoring for sampling locations IC1, SC1, SC2, SC3, SC4, SC5, LSC1, LSC3, MC1 and MC2 be conducted during the same day or on consecutive days.

- (c.) McAlpine Creek WWMF's permit contains all instream monitoring requirements for Irwin Creek WWTP's (NC0024945) receiving stream, Irwin Creek. Submit all monitoring requirements for Irwin Creek on McAlpine Creek WWMF's electronic discharge monitoring reports.

A.(4.) SUGAR CREEK INSTREAM MONITORING REQUIREMENTS

[15A NCAC 02B.0500 et seq.]

- (a.) During the period beginning on the effective date of the permit and lasting until expiration, the Permittee shall monitor Sugar Creek as specified below:

PARAMETER <i>Parameter Code</i>	MONITORING REQUIREMENTS		
	Measurement Frequency	Sample Type	Sample Location ²
Dissolved Oxygen (mg/L) <i>00300</i>	Variable ¹	Grab	SC1, SC2, SC3, SC4, and SC5
Temperature (°C) <i>00010</i>	Variable ¹	Grab	SC1, SC2, SC3, SC4, and SC5
Conductivity (µmhos/cm) <i>00094</i>	Variable ¹	Grab	SC1, SC2, SC3, SC4, and SC5
Fecal Coliform (#/100mL) <i>31616</i>	Variable ¹	Grab	SC1
Turbidity (NTUs) <i>00070</i>	Variable ¹	Grab	SC1
Total Chromium (µg/L) <i>01034</i>	Quarterly	Grab	SC4
Total Copper (µg/L) <i>01042</i>	Quarterly	Grab	SC4
pH (standard units) <i>00400</i>	Variable ¹	Grab	SC5
NH ₃ as N (mg/L) <i>CO610</i>	Weekly	Grab	SC5
TKN (mg/L) <i>00625</i>	Weekly	Grab	SC5
NO ₃ -N + NO ₂ -N (mg/L) <i>00630</i>	Weekly	Grab	SC5
Total Phosphorus (mg/L) <i>CO665</i>	Weekly	Grab	SC5
Orthophosphate (mg/L) <i>70507</i>	Weekly	Grab	SC5

Footnotes:

- Variable = Weekly (June 1 – September 30) and monthly (October 1 – May 31)
 - Instream sampling locations: SC1 = Sugar Creek, downstream of confluence with Irwin Creek at Yorkmont Road, SC2= Sugar Creek, downstream of confluence with Irwin Creek at Arrowhead Road, SC3= Sugar Creek, downstream of confluence with Irwin Creek at Nations Ford Road, SC4= Sugar Creek, downstream of confluence with Irwin Creek at Route 51, SC5= Sugar Creek, downstream of confluence with McAlpine Creek at Route 160.
- (b.) It is recommended that instream monitoring for stations IC1, SC1, SC2, SC3, SC4, SC5, LSC1, LSC3, MC1 and MC2 be conducted during the same day or on consecutive days.
- (c.) McAlpine Creek WWMF's permit contains all instream monitoring requirements for Irwin Creek WWTP's (NC0024945) receiving stream, including downstream Sugar Creek. Submit all monitoring requirements for Sugar Creek on McAlpine Creek WWMF's electronic discharge monitoring reports.

A.(5.) LITTLE SUGAR CREEK INSTREAM MONITORING REQUIREMENTS

[15A NCAC 02B.0500 et seq.]

- (a.) During the period beginning on the effective date of the permit and lasting until expiration, the Permittee shall monitor Little Sugar Creek as specified below:

PARAMETER <i>Parameter Code</i>	MONITORING REQUIREMENTS		
	Measurement Frequency	Sample Type	Sample Location ²
Dissolved Oxygen (mg/L) <i>00300</i>	Variable ¹	Grab	LSC1 and LSC3
Temperature (°C) <i>00010</i>	Variable ¹	Grab	LSC1 and LSC3
Conductivity (µmhos/cm) <i>00094</i>	Variable ¹	Grab	LSC1 and LSC3
Total Copper (µg/L) <i>01042</i>	Quarterly	Grab	LSC1 and LSC3
Hardness- Total as CaCO ₃ (mg/L) <i>00900</i>	Quarterly	Grab	LSC1

Footnotes:

1. Variable = Weekly (June 1 – September 30) and monthly (October 1 – May 31)
 2. Instream sampling locations: LSC1= Little Sugar Creek, upstream of Sugar Creek WWTP and LSC3= Little Sugar Creek, downstream of Sugar Creek WWTP at Highway 51.
- (b.) It is recommended that instream monitoring for stations IC1, SC1, SC2, SC3, SC4, SC5, LSC1, LSC3, MC1 and MC2 be conducted during the same day or on consecutive days.
- (c.) McAlpine Creek WWMF's permit contains all instream monitoring requirements for Sugar Creek WWTP's (NC0024937) receiving stream, Little Sugar Creek. Submit all monitoring requirements for Little Sugar Creek on McAlpine Creek WWMF's electronic discharge monitoring reports.
- (d.) The revised instream monitoring program, no longer requires monitoring of sampling location LSC2. The LSC2 designation continues to refer to the sampling station on Little Sugar Creek downstream of the Sugar Creek WWTP at Archdale Road; however, this station is inactive.

A.(6.) CHRONIC TOXICITY PERMIT LIMIT (QUARTERLY)

[15A NCAC 02B .0200] [15A NCAC 02B .0500 et seq]

The effluent discharge shall at no time exhibit observable inhibition of reproduction or significant mortality to *Ceriodaphnia dubia* at an effluent concentration of **90%**.

The permit holder shall perform at a minimum, **quarterly** monitoring using test procedures outlined in the “North Carolina *Ceriodaphnia* Chronic Effluent Bioassay Procedure,” (Revised December 2010, or subsequent versions) or “North Carolina Phase II Chronic Whole Effluent Toxicity Test Procedure” (Revised December 2010, or subsequent versions). The tests will be performed during the months of **March, June, September, and December**. These months signify the first month of each three-month toxicity testing quarter assigned to the facility. Effluent sampling for this testing must be obtained during representative effluent discharge and shall be performed at the NPDES permitted final effluent discharge below all treatment processes.

If the test procedure performed as the first test of any single quarter results in a failure or ChV below the permit limit, then multiple-concentration testing shall be performed at a minimum, in each of the two following months as described in “North Carolina Phase II Chronic Whole Effluent Toxicity Test Procedure” (Revised-December 2010, or subsequent versions).

All toxicity testing results required as part of this permit condition will be entered electronically using the Division’s eDMR system for the months in which tests were performed, using the parameter code **TGP3B** for the pass/fail results and **THP3B** for the Chronic Value. Additionally, DWR Form **AT-3** (original) is to be sent to the following address:

North Carolina Division of Water Resources
Water Sciences Section/Aquatic Toxicology Branch
1621 Mail Service Center
Raleigh, NC 27699-1621

Or, results can be sent to the email, ATForms.ATB@deq.nc.gov.

Completed Aquatic Toxicity Test Forms shall be filed with the Water Sciences Section no later than 30 days after the end of the reporting period for which the report is made.

Test data shall be complete, accurate, include all supporting chemical/physical measurements and all concentration/response data, and be certified by laboratory supervisor and ORC or approved designate signature. Total residual chlorine of the effluent toxicity sample must be measured and reported if chlorine is employed for disinfection of the waste stream.

Should there be no discharge of flow from the facility during a month in which toxicity monitoring is required, the permittee will complete the information located at the top of the aquatic toxicity (AT) test form indicating the facility name, permit number, pipe number, county, and the month/year of the report with the notation of “No Flow” in the comment area of the form. The report shall be submitted to the Water Sciences Section at the address cited above.

Should the permittee fail to monitor during a month in which toxicity monitoring is required, monitoring will be required during the following month. Assessment of toxicity compliance is based on the toxicity testing quarter, which is the three-month time interval that begins on the first day of the month in which toxicity testing is required by this permit and continues until the final day of the third month.

Should any test data from this monitoring requirement or tests performed by the North Carolina Division of Water Resources indicate potential impacts to the receiving stream, this permit may be re-opened and modified to include alternate monitoring requirements or limits.

NOTE: Failure to achieve test conditions as specified in the cited document, such as minimum control organism survival, minimum control organism reproduction, and appropriate environmental controls, shall constitute an **invalid test** and will require immediate follow-up testing to be completed no later than the last day of the month following the month of the initial monitoring.

A.(7.) COMBINED LIMITATION FOR TOTAL PHOSPHORUS – OUTFALL TP01

[NCGS 143-215.1 (b)]

- (a.) As stipulated by the 2002 Settlement Agreement between Charlotte-Mecklenburg Utilities (now Charlotte Water), the South Carolina Department of Health and Environmental Control (SC DHEC), and the North Carolina Division of Water Quality (now the Division of Water Resources, NC DWR), Charlotte Water's McAlpine Creek WWMF, Sugar Creek WWTP and Irwin Creek WWTP must comply with a combined limit for Total Phosphorus.
- (b.) Accordingly, during the period beginning on the effective date of this permit and lasting until expiration, the Permittee continues to be authorized to discharge Total Phosphorus from the McAlpine Creek WWMF (NC0024970, Outfall 001), the Sugar Creek WWTP (NC0024937, Outfalls 001 and 002), and the Irwin Creek WWTP (NC0024945, Outfall 001) subject to a Combined TP Load limitation of 826.0 lb/day, calculated as a rolling 12-month average daily load.
- (c.) Monitoring requirements for Total Phosphorus shall be as specified in the Effluent Limitations and Monitoring Requirements in each of the specified permits; see Condition A.(1.) in this permit.
- (d.) TP Loads shall be calculated and reported as specified in the Calculation and Reporting of Total Phosphorus Loads condition in the facilities' individual NPDES permits. See Condition A.(8), below. The Combined TP Load (Outfall TP01) shall be reported on the DMRs for the McAlpine Creek WWMF.

A.(8.) CALCULATION AND REPORTING OF TOTAL PHOSPHORUS LOADS

[NCGS 143-215.1 (b)]

- (a.) The Permittee shall calculate the TP Loads for the McAlpine Creek WWMF as follows and report the results in the facility's discharge monitoring report (DMR) for Outfall 001:
- (i.) $\text{Monthly TP Load (lb/mo, QM665)} = \text{TP} \times \text{TMF} \times 8.34$
 where:
- | | | |
|------|---|--|
| TP | = | the average of total phosphorus concentrations (mg/L) of the composite samples collected during the month |
| TMF | = | the Total Monthly Flow of wastewater discharged during the month (MG/mo); that is, the sum of daily flows in the month |
| 8.34 | = | conversion factor, from (mg/L x MG) to pounds |
- (ii.) $\text{Daily TP Load (lb/day, QD665)} = \text{Monthly TP Load} \div \text{Number of Days in the current month}$
- (iii.) $\text{12-Month TP Load (lb/yr, QY665)} = \text{Sum of the Monthly TP Loads for the 12-month period ending with the reporting month}$
- (b.) The Permittee shall calculate the rolling 12-month average daily TP load (or Combined TP Load) for the McAlpine Creek WWMF (Outfall 001), Sugar Creek WWTP (Outfalls 001 and 002), and Irwin Creek WWTP (Outfall 001) as follows and report the results on the DMRs for the McAlpine Creek facility for Outfall TP01:
- $\text{Combined TP Load (lb/day, RA665)} = \text{Sum of 12-Month TP Loads for the three facilities} \div \text{Number of Days in the 12-month period}$

A.(9.) ADDITIONAL MONITORING REQUIREMENTS FOR PERMIT RENEWAL

[G.S. 143-215.1(B)]

- (a.) **Effluent Pollutant Scans.** The permittee shall perform a total of three (3) Effluent Pollutant Scans for all parameters listed below. One scan must be performed in each of the following years: 2025, 2026, and 2027. Analytical methods shall be in accordance with 40 CFR Part 136 and shall be sufficiently sensitive to determine whether parameters are present in concentrations greater than applicable standards and criteria. Each annual sample shall coincide with one quarterly toxicity test each year (see Condition A.(6.) (CHRONIC TOXICITY PERMIT LIMIT (QUARTERLY))), and each must be collected in a different calendar quarter to represent seasonal variation [i.e., do not sample in the same quarter every year]. Unless otherwise indicated, metals shall be analyzed as “total recoverable.”

Ammonia (as N)	CO610	Trans-1,2-dichloroethylene	34546	Bis (2-chloroethyl) ether	34273
Chlorine (total residual, TRC)	50060	1,1-dichloroethylene	34501	Bis (2-chloroisopropyl) ether	34283
Dissolved oxygen	00300	1,2-dichloropropane	CO541	Bis (2-ethylhexyl) phthalate	CO100
Nitrate / Nitrite	00630	1,3-dichloropropylene	77163	4-bromophenyl phenyl ether	34636
Kjeldahl nitrogen	00625	Ethylbenzene	34371	Butyl benzyl phthalate	34292
Oil and grease	00556	Methyl bromide	34413	2-chloronaphthalene	34581
Phosphorus	CO665	Methyl chloride	34418	4-chlorophenyl phenyl ether	34641
Total dissolved solids	70295	Methylene chloride	34423	Chrysene	34320
Hardness	00900	1,1,2,2-tetrachloroethane	81549	Di-n-butyl phthalate	39110
Antimony	01097	Tetrachloroethylene	34475	Di-n-octyl phthalate	34596
Arsenic	01002	Toluene	34010	Dibenzo(a,h)anthracene	34556
Beryllium	01012	1,1,1-trichloroethane	34506	1,2-dichlorobenzene	34536
Cadmium	01027	1,1,2-trichloroethane	34511	1,3-dichlorobenzene	34566
Chromium	CO034	Trichloroethylene	39180	1,4-dichlorobenzene	34571
Copper	01042	Vinyl chloride	39175	3,3-dichlorobenzidine	34631
Lead	01051	<u>Acid-extractable compounds:</u>		Diethyl phthalate	34336
Mercury (Method 1631E)	COMER	P-chloro-m-cresol	34452	Dimethyl phthalate	34341
Nickel	01067	2-chlorophenol	34586	2,4-dinitrotoluene	34611
Selenium	01147	2,4-dichlorophenol	34601	2,6-dinitrotoluene	CO626
Silver	01077	2,4-dimethylphenol	34606	1,2-diphenylhydrazine	34346
Thallium	01059	4,6-dinitro-o-cresol	34657	Fluoranthene	CO376
Zinc	01092	2,4-dinitrophenol	34616	Fluorene	34381
Cyanide	00720	2-nitrophenol	34591	Hexachlorobenzene	CO700
Total phenolic compounds	32730	4-nitrophenol	34646	Hexachlorobutadiene	CO702
		Pentachlorophenol	39032	Hexachlorocyclo-pentadiene	34386
<u>Volatile organic compounds:</u>		Phenol	34694	Hexachloroethane	34396
Acrolein	34210	2,4,6-trichlorophenol	34621	Indeno(1,2,3-cd)pyrene	34403
Acrylonitrile	34215			Isophorone	34408
Benzene	34030	<u>Base-neutral compounds:</u>		Naphthalene	34696
Bromoform	32104	Acenaphthene	34205	Nitrobenzene	34447
Carbon tetrachloride	32102	Acenaphthylene	34200	N-nitrosodi-n-propylamine	34428
Chlorobenzene	34301	Anthracene	CO220	N-nitrosodimethylamine	34438
Chlorodibromomethane	34306	Benzidine	39120	N-nitrosodiphenylamine	34433
Chloroethane	85811	Benzo(a)anthracene	CO526	Phenanthrene	34461
2-chloroethyl vinyl ether	34576	Benzo(a)pyrene	34247	Pyrene	34469
Chloroform	32106	3,4 benzo(a)fluoranthene	34230	1,2,4-trichlorobenzene	CO551
Dichlorobromomethane	32101	Benzo(ghi)perylene	34521		
1,1-dichloroethane	34496	Benzo(k)fluoranthene	34242		
1,2-dichloroethane	32103	Bis (2-chloroethoxy) methane	34278		

- (b.) **Effluent Scan Reporting.** Test results shall be reported electronically via eDMR by December 31st of each designated sampling year, except that, subject to prior written approval by the Director, results can be reported on DWR Form DMR-PPA-1 or other form approved by the Director. The permittee must at least report completion of the test in the eDMR system by entering “1” or “Y” for parameter code NC01 -

Annual Pollutant Scan. If written reports are approved, the report shall be submitted to the following address:

North Carolina Division of Water Resources
Central Files
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

Or the form may be uploaded at: https://edocs.deq.nc.gov/Forms/NPDES_WW-EDMR-Supplemental-Form

(c.) **2nd-Species Toxicity Testing and Reporting.**

- (i.) In addition to the quarterly toxicity tests required in Condition A.(6.) (*CHRONIC TOXICITY PERMIT LIMIT (QUARTERLY)*), the Permittee shall perform and report the results of four (4) toxicity tests using the same test methods using a second species of test organism suitable to the tests being conducted.
- (ii.) The 2nd species toxicity tests shall be conducted either:
- (A) Once per quarter in a single 12-month period (four samples); if this option is chosen, the sample for each 2nd species test shall coincide with the quarterly samples collected for (*CHRONIC TOXICITY PERMIT LIMIT (QUARTERLY)*); or
- (B) Once per 12-month period in the four-and one-half year period prior to the scheduled application for permit renewal (four samples); if this option is chosen, three of the samples for the 2nd species test shall coincide with those for the annual effluent scans and the coincident quarterly toxicity test, and each of the four annual samples shall be collected in a different calendar quarter in order to represent seasonal variation.

- (iii.) The results of the toxicity tests shall be submitted to the following address:

North Carolina Division of Water Resources
Water Sciences Section/Aquatic Toxicology Branch
1621 Mail Service Center
Raleigh, North Carolina 27699-1621

Or, results can be sent to the email, ATForms.ATB@deq.nc.gov.

- (iv.) Results of the 2nd species tests shall also be summarized in Part E (Toxicity Testing Data) of EPA Municipal Application Form 2A when submitting the permit renewal application to the NPDES Wastewater Program.

The Permittee may contact the Division's Aquatic Toxicology Branch at 919-743-8401 for guidance on conducting the additional toxicity tests and reporting of the results.

A.(10.) PFAS MONITORING REQUIREMENT AND PRETREATMENT

[G.S. 143-215.1(b.)]

- (a) In the absence of a final 40 CFR Part 136 method, **influent and post-filtration** PFAS monitoring shall be conducted. The **3rd or more recent** wastewater draft analytical method 1633 (see 40 CFR 122.21(e)(3)(ii) and 40 CFR 122.44(i)(1)(iv)(B)) shall be used and shall include all **target analytes** listed under Table 1 of the draft method until such time as the Permittee uses the Final PFAS Method for wastewater. Effective the first full calendar quarter following six (6) months after EPA publishes a 40 CFR part 136 **Final** PFAS Method for wastewater in the *Federal Register*, **effluent** PFAS monitoring shall be conducted using the approved EPA Final PFAS Method 1633.
- (b) **Influent and post-filtration monitoring takes effect the first full calendar quarter following six (6) months after the effective date of the permit** (July 1, 2024) and will be at a quarterly frequency thereafter.

- (i.) Appendix A has been added to the permit to identify the current analytes listed under Table 1 of the 4th **Draft** Method 1633 Analysis of Per- and Polyfluoroalkyl Substances (PFAS) July 2023, in Aqueous Samples and the appropriate ICIS codes for use when reporting in the electronic Discharge Monitoring Reports (eDMRs). The method and list of analytes may also be found at:

https://www.epa.gov/system/files/documents/2022-12/3rd%20Draft%20Method%201633%20December%202022%2012-20-22_508.pdf

PFAS Monitoring using the Draft Method 1633 shall be reported quarterly using the Division-provided submittal form. Once PFAS monitoring is conducted using the EPA Final PFAS Method 1633, data shall be reported in the monthly eDMRs.

- (ii.) Please note that specific considerations and protocols are required to avoid cross-contamination and minimize sample bias for PFAS. A current listing of laboratories accredited by the Perry Johnson Laboratory Accreditation, Inc. (PJLA), ANSI National Accreditation Board (ANAB), or the American Association for Laboratory Accreditation (A2LA) to perform EPA Draft Method 1633 can be found by contacting the individual associations. Please note that different labs are accredited for different matrices.

NOTES - Sampling and Analytical:

- Sampling shall be planned so that required holding times for analytical methods are met.
- Using one of the analytical laboratories included above will allow consistency in analytical method and in anticipation of a final method.
- “J” flag values shall be reported when the “J” flag value is associated with the method’s upper bound. “J” flag values need not be reported when less than the method’s Minimum Reporting Level (listed in Method 1633).
- Laboratories approved for Aqueous matrix may be utilized. Please note that the lab used does not have to be in North Carolina.

- (c) Pretreatment program activities:

- (i.) **PFAS Monitoring Applicability:** Industry categories known or suspected to discharge PFAS from the EPA PFAS Strategic Roadmap include: organic chemicals, plastics & synthetic fibers (OCPSF); metal finishing; electroplating; electric and electronic components; landfills; pulp, paper & paperboard; leather tanning & finishing; plastics molding & forming; textile mills; paint formulating, and airports. This is not an exhaustive list and additional industries may also discharge PFAS. For example, Centralized Waste Treatment (CWT) facilities may receive wastes from the aforementioned industries and should be considered for monitoring. There may also be categories of dischargers that do not meet the applicability criteria of any existing Effluent Limitation Guidelines (ELG); for instance, remediation sites, chemical manufacturing not covered by OCPSF, and military bases.¹

¹ELG categories of airport deicing, landfills, textile mills, and plastics molding and forming do not have categorical pretreatment standards, and therefore small-volume indirect dischargers in those categories would not ordinarily be considered Significant Industrial Users (SIUs) and may not be captured on an existing IU inventory. IUs under the Paint Formulating category are only subject to Pretreatment Standards for New Sources (PSNS), and existing sources may need to be inventoried.

- (ii.) The Permittee shall identify and locate each Significant Industrial User (SIU) in the approved pretreatment program in industry categories expected or suspected of PFAS discharges to the McAlpine Creek WWMF; and begin sampling of and modify Industrial User Permits (IUPs) for each SIU identified as suspected of PFAS discharges to the McAlpine Creek WWMF to ensure sampling begins **within six months of the permit effective date, by July 1, 2024.**
- (iii.) Update Industrial Waste Survey (IWS) Inventory: POTWs must identify and locate all possible indirect dischargers that might be subject to the pretreatment program and identify the character and volume of pollutants contributed to the POTW by the indirect dischargers (see 40 CFR 403.8(f)(2)). As EPA regulations require, this information shall be provided to the Division (see 40 CFR 122.44(j) and 40 CFR 403.8(f)(6)) **as part of the 2024 Pretreatment Annual Report (PAR).** The IWS inventory shall be revised, as necessary, to include all indirect dischargers in industry categories expected or suspected of PFAS discharges.¹ (see 15A NCAC 02H .0906(b)(2)).
- (iv.) The Permittee shall begin sampling of and/or issue IUPs for each indirect discharger identified as suspected of PFAS discharges to the McAlpine Creek WWMF to ensure sampling begins **within six months of completion of the IWS.**
- (v.) The Division has determined that all SIUs and indirect dischargers identified above analyze their discharge for PFAS **at the same quarterly sampling frequency and with the same analytical method** to ensure protection of human health and the environment due to the potential health hazards associated with PFAS. Collection and evaluation of this information will also assist the Department in developing sound policies with respect to PFAS in the environment.
- (vi.) The Permittee shall ensure that IUPs within the McAlpine Creek WWMF service area are modified or reissued, new IUPs are issued, and other Pretreatment Program mechanisms are completed to address PFAS discharges to POTWs.
- (vii.) In the absence of local limits, and based upon data as they become available, POTWs shall encourage Best Management Practices (BMPs), pollution prevention, product substitution, and good housekeeping practices to make meaningful reductions in PFAS introduced to POTWs. Such BMPs could be like those included in the EPA Office of Water, December 5, 2022, “Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs.”^{A3}. “Best Management Practices (BMPs) for discharges of PFAS, including product substitution, reduction, or elimination of PFAS, as detected by draft method 1633”.
- (viii.) A summary of all actions taken by the Permittee and their industries and monitoring conducted by each indirect discharger identified as part of this Special Condition shall be provided as part of the PAR (see 15A NCAC 02H .0908(b)).

A.(11.) 1,4-DIOXANE RE-OPENER

[NCGS 143-215.1 (b)]

Pursuant to N.C. General Statutes Section 143-215.1 and the implementing rules found in the North Carolina Administrative Code at 15A NCAC 2H.0112 (b) (1) and 2H.0114 (a) and Part II, Sections B-12 and B-13 of this permit, the Director of DWR may reopen this permit to modify permit requirements to address 1,4-Dioxane monitoring, treatment and/or compliance.

A.(12.) MERCURY MINIMIZATION PLAN (MMP)

[N.C.G.S. 143-215.1 (B)]

The Permittee shall maintain and continue to implement the Mercury Minimization Plan (MMP) developed in the previous permit term. The MMP shall continue to be available for inspection on-site. The MMP should place emphasis on identification of mercury contributors and goals for reduction. Results shall be summarized and submitted with the next permit renewal. Performance of the MMP will meet the requirements of the TMDL (Total Maximum Daily Load) for mercury approved by USEPA on October 12, 2012, unless and until a Waste Load Allocation specific to this facility is developed and this NPDES permit is amended to require further actions to address the Waste Load Allocation.

A.(13.) ELECTRONIC REPORTING - DISCHARGE MONITORING REPORTS

[G.S. 143-215.1 (b)]

Federal regulations require electronic submittal of all discharge monitoring reports (DMRs) and program reports. The final NPDES Electronic Reporting Rule was adopted and became effective on December 21, 2015.

NOTE: This special condition supplements or supersedes the following sections within Part II of this permit (*Standard Conditions for NPDES Permits*):

- Section B. (11.) Signatory Requirements
- Section D. (2.) Reporting
- Section D. (6.) Records Retention
- Section E. (5.) Monitoring Reports

1. Reporting Requirements [Supersedes Section D. (2.) and Section E. (5.) (a)]

The permittee shall report discharge monitoring data electronically using the NC DWR's Electronic Discharge Monitoring Report (eDMR) internet application.

Monitoring results obtained during the previous month(s) shall be summarized for each month and submitted monthly electronically using eDMR. The eDMR system allows permitted facilities to enter monitoring data and submit DMRs electronically using the internet. The eDMR system may be accessed at: <https://deq.nc.gov/about/divisions/water-resources/edmr>.

If a permittee is unable to use the eDMR system due to a demonstrated hardship or due to the facility being physically located in an area where less than 10 percent of the households have broadband access, then a temporary waiver from the NPDES electronic reporting requirements may be granted and discharge monitoring data may be submitted on paper DMR forms (MR 1, 1.1, 2, 3) or alternative forms approved by the Director. Duplicate signed copies shall be submitted to the following address:

NC DEQ / Division of Water Resources / Water Quality Permitting Section
ATTENTION: Central Files
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

See "How to Request a Waiver from Electronic Reporting" section below.

Monitoring results obtained during the previous month(s) shall be summarized for each month and reported via the eDMR system no later than the last calendar day of the month following the completed reporting period. Regardless of the submission method, the first DMR is due on the last day of the month following the issuance of the permit or in the case of a new facility, on the last day of the month following the commencement of discharge.

Starting on **December 21, 2025**, the permittee must electronically report the following compliance monitoring data and reports, when applicable:

- Sewer Overflow/Bypass Event Reports; and
- Pretreatment Program Annual Reports; and
- Clean Water Act (CWA) Section 316(b) Annual Reports.

The permittee may seek an electronic reporting waiver from the Division (see "How to Request a Waiver from Electronic Reporting" section below).

2. Electronic Submissions

In accordance with 40 CFR 122.41(1)(9), the permittee must identify the initial recipient at the time of each electronic submission. The permittee should use the EPA's website resources to identify the initial recipient for the electronic submission.

Initial recipient of electronic NPDES information from NPDES-regulated facilities means the entity (EPA or the state authorized by EPA to implement the NPDES program) that is the designated entity for receiving electronic NPDES data [see 40 CFR 127.2(b)].

EPA plans to establish a website that will also link to the appropriate electronic reporting tool for each type of electronic submission and for each state. Instructions on how to access and use the appropriate electronic reporting tool will be available as well. Information on EPA's NPDES Electronic Reporting Rule is found at: <https://www.federalregister.gov/documents/2015/10/22/2015-24954/national-pollutant-discharge-elimination-system-npdes-electronic-reporting-rule>

Electronic submissions must start by the dates listed in the "Reporting Requirements" section above.

3. How to Request a Waiver from Electronic Reporting

The permittee may seek a temporary electronic reporting waiver from the Division. To obtain an electronic reporting waiver, a permittee must first submit an electronic reporting waiver request to the Division. Requests for temporary electronic reporting waivers must be submitted in writing to the Division for written approval at least sixty (60) days prior to the date the facility would be required under this permit to begin submitting monitoring data and reports. The duration of a temporary waiver shall not exceed 5 years and shall thereupon expire. At such time, monitoring data and reports shall be submitted electronically to the Division unless the permittee re-applies for and is granted a new temporary electronic reporting waiver by the Division. Approved electronic reporting waivers are not transferrable. Only permittees with an approved reporting waiver request may submit monitoring data and reports on paper to the Division for the period that the approved reporting waiver request is effective.

Information on eDMR and the application for a temporary electronic reporting waiver are found on the following web page:

<http://deq.nc.gov/about/divisions/water-resources/edmr>

4. Signatory Requirements [Supplements Section B. (11.) (b) and Supersedes Section B. (11.) (d)]

All eDMRs submitted to the permit issuing authority shall be signed by a person described in Part II, Section B. (11.) (a) or by a duly authorized representative of that person as described in Part II, Section B. (11.) (b). A person, and not a position, must be delegated signatory authority for eDMR reporting purposes.

For eDMR submissions, the person signing and submitting the DMR must obtain an eDMR user account and login credentials to access the eDMR system. For more information on North Carolina's eDMR system, registering for eDMR and obtaining an eDMR user account, please visit the following web page:

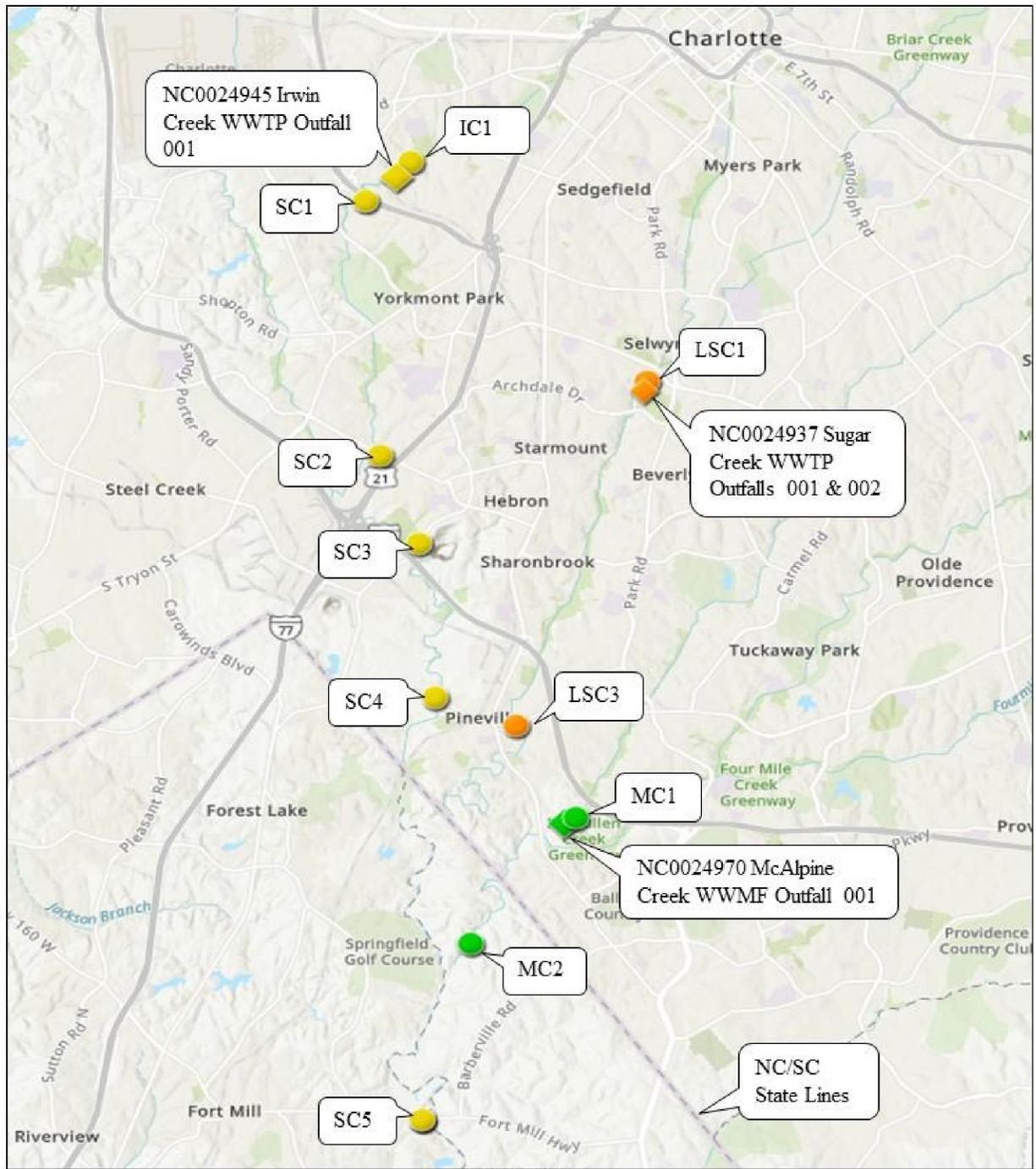
<http://deq.nc.gov/about/divisions/water-resources/edmr>

Certification. Any person submitting an electronic DMR using the state's eDMR system shall make the following certification [40 CFR 122.22]. NO OTHER STATEMENTS OF CERTIFICATION WILL BE ACCEPTED:

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

5. Records Retention [Supplements Section D. (6.)]

The permittee shall retain records of all Discharge Monitoring Reports, including eDMR submissions. These records or copies shall be maintained for a period of at least 3 years from the date of the report. This period may be extended by request of the Director at any time [40 CFR 122.41].



SCALE: 1:24,000

Location:	Latitude:	Longitude:
Outfall	35° 03' 55" N	80° 52' 21" W
MC1	35° 03' 59" N	80° 52' 10" W
MC2	35° 02' 27" N	80° 53' 30" W

Receiving Stream: McAlpine Creek	Stream Class: C
Subbasin: 03-08-34	HUC: 03050103
USGS Quad: G15SE	



North



Facility Location

NC0024970 McAlpine Creek WWMF
Charlotte Water

Appendix A. PFAS Target Analytes EPA Method 1633 (4th Draft, July 2023).

Target Analyte Name	Abbreviation	CAS Number	Parameter Code
Perfluoroalkyl carboxylic acids			
Perfluorobutanoic acid	PFBA	375-22-4	51522
Perfluoropentanoic acid	PFPeA	2706-90-3	51623
Perfluorohexanoic acid	PFHxA	307-24-4	51624
Perfluoroheptanoic acid	PFHpA	375-85-9	51625
Perfluorooctanoic acid	PFOA	335-67-1	51521
Perfluorononanoic acid	PFNA	375-95-1	51626
Perfluorodecanoic acid	PFDA	335-76-2	51627
Perfluoroundecanoic acid	PFUnA	2058-94-8	51628
Perfluorododecanoic acid	PFDoA	307-55-1	51629
Perfluorotridecanoic acid	PFTrDA	72629-94-8	51630
Perfluorotetradecanoic acid	PFTeDA	376-06-7	51531
Perfluoroalkyl sulfonic acids			
Perfluorobutanesulfonic acid	PFBS	375-73-5	52602
Perfluoropentanesulfonic acid	PFPeS	2706-91-4	52610
Perfluorohexanesulfonic acid	PFHxS	355-46-4	52605
Perfluoroheptanesulfonic acid	PFHpS	375-92-8	52604
Perfluorooctanesulfonic acid	PFOS	1763-23-1	52606
Perfluorononanesulfonic acid	PFNS	68259-12-1	52611
Perfluorodecanesulfonic acid	PFDS	335-77-3	52603
Perfluorododecanesulfonic acid	PFDoS	79780-39-5	52632
Fluorotelomer sulfonic acids			
1H,1H,2H,2H-Perfluorohexane sulfonic acid	4:2FTS	757124-72-4	52607
1H,1H,2H,2H-Perfluorooctane sulfonic acid	6:2FTS	27619-97-2	52608
1H,1H,2H,2H-Perfluorodecane sulfonic acid	8:2FTS	39108-34-4	52609
Perfluorooctane sulfonamides			
Perfluorooctanesulfonamide	PFOSA	754-91-6	51525
N-methyl perfluorooctanesulfonamide	NMeFOSA	31506-32-8	52641
N-ethyl perfluorooctanesulfonamide	NEtFOSA	4151-50-2	52642

Table continues on next page.

Table continued from Appendix A. **PFAS Target Analytes EPA Method 1633** (4th Draft, July 2023).

Target Analyte Name	Abbreviation	CAS Number	Parameter Code
Perfluorooctane sulfonamidoacetic acids			
N-methyl perfluorooctanesulfonamidoacetic acid	NMeFOSAA	2355-31-9	51644
N-ethyl perfluorooctanesulfonamidoacetic acid	NEFOSAA	2991-50-6	51643
Perfluorooctane sulfonamide ethanols			
N-methyl perfluorooctanesulfonamidoethanol	NMeFOSE	24448-09-7	51642
N-ethyl perfluorooctanesulfonamidoethanol	NetFOSE	1691-99-2	51641
Per- and Polyfluorother carboxylic acids			
Hexafluoropropylene oxide dimer acid	HFPO-DA	13252-13-6	52612
4,8-Dioxa-3H-perfluorononanoic acid	ADONA	919005-14-4	52636
Perfluoro-3-methoxypropanoic acid	PFMPA	377-73-1	PF002
Perfluoro-4-methoxybutanoic acid	PFMBA	863090-89-5	PF006
Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	151772-58-6	52626
Ether sulfonic acids			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	9Cl-PF3ONS	756426-58-1	PF003
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11Cl-PF3OUdS	763051-92-9	PF004
Perfluoro(2-ethoxyethane)sulfonic acid	PFEEESA	113507-82-7	52629
Fluorotelomer carboxylic acids			
3-Perfluoropropyl propanoic acid	3:3FTCA	356-02-5	PF001
2H,2H,3H,3H-Perfluorooctanoic acid	5:3FTCA	914637-49-3	PF007
3-Perfluoroheptyl propanoic acid	7:3FTCA	812-70-4	PF005

PART II STANDARD CONDITIONS FOR NPDES PERMITS

Section A. Definitions

2/Month

Samples are collected twice per month with at least ten calendar days between sampling events. These samples shall be representative of the wastewater discharged during the sample period.

3/Week

Samples are collected three times per week on three separate calendar days. These samples shall be representative of the wastewater discharged during the sample period.

Act or "the Act"

The Federal Water Pollution Control Act, also known as the Clean Water Act (CWA), as amended, 33 USC 1251, et. seq.

Annual Average

The arithmetic mean of all "daily discharges" of a pollutant measured during the calendar year. In the case of fecal coliform, the geometric mean of such discharges.

Arithmetic Mean

The summation of the individual values divided by the number of individual values.

Bypass

The known diversion of waste streams from any portion of a treatment facility including the collection system, which is not a designed or established or operating mode for the facility.

Calendar Day

The period from midnight of one day until midnight of the next day. However, for purposes of this permit, any consecutive 24-hour period that reasonably represents the calendar day may be used for sampling.

Calendar Week

The period from Sunday through the following Saturday.

Calendar Quarter

One of the following distinct periods: January through March, April through June, July through September, and October through December.

Composite Sample

A sample collected over a 24-hour period by continuous sampling or combining grab samples of at least 100 mL in such a manner as to result in a total sample representative of the wastewater discharge during the sample period. The Director may designate the most appropriate method (specific number and size of aliquots necessary, the time interval between grab samples, etc.) on a case-by-case basis. Samples may be collected manually or automatically. Composite samples may be obtained by the following methods:

- (1) Continuous: a single, continuous sample collected over a 24-hour period proportional to the rate of flow.
- (2) Constant time/variable volume: a series of grab samples collected at equal time intervals over a 24 hour period of discharge and combined proportional to the rate of flow measured at the time of individual sample collection, or
- (3) Variable time/constant volume: a series of grab samples of equal volume collected over a 24 hour period with the time intervals between samples determined by a preset number of gallons passing the sampling point. Flow measurement between sample intervals shall be determined by use of a flow recorder and totalizer, and the preset gallon interval between sample collection fixed at no greater than 1/24 of the expected total daily flow at the treatment system, or

- (4) Constant time/constant volume: a series of grab samples of equal volume collected over a 24-hour period at a constant time interval. Use of this method requires prior approval by the Director. This method may only be used in situations where effluent flow rates vary less than 15 percent. The following restrictions also apply:
- Influent and effluent grab samples shall be of equal size and of no less than 100 milliliters
 - Influent samples shall not be collected more than once per hour.
 - Permittees with wastewater treatment systems whose detention time < 24 hours shall collect effluent grab samples at intervals of no greater than 20 minutes apart during any 24-hour period.
 - Permittees with wastewater treatment systems whose detention time exceeds 24 hours shall collect effluent grab samples at least every six hours; there must be a minimum of four samples during a 24-hour sampling period.

Continuous flow measurement

Flow monitoring that occurs without interruption throughout the operating hours of the facility. Flow shall be monitored continually except for the infrequent times when there may be no flow or for infrequent maintenance activities on the flow device.

Daily Discharge

The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants measured in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day. (40 CFR 122.2; see also "Composite Sample," above.)

Daily Maximum

The highest "daily discharge" during the calendar month.

Daily Sampling

Parameters requiring daily sampling shall be sampled 5 out of every 7 days per week unless otherwise specified in the permit. Sampling shall be conducted on weekdays except where holidays or other disruptions of normal operations prevent weekday sampling. If sampling is required for all seven days of the week for any permit parameter(s), that requirement will be so noted on the Effluent Limitations and Monitoring Page(s).

DWR or "the Division"

The Division of Water Resources, Department of Environmental Quality.

Effluent

Wastewater discharged following all treatment processes from a water pollution control facility or other point source whether treated or untreated.

EMC

The North Carolina Environmental Management Commission

EPA

The United States Environmental Protection Agency

Facility Closure

Cessation of all activities that require coverage under this NPDES permit. Completion of facility closure will allow this permit to be rescinded.

Geometric Mean

The Nth root of the product of the individual values where N = the number of individual values. For purposes of calculating the geometric mean, values of "0" (or "< [detection level]") shall be considered = 1.

Grab Sample

Individual samples of at least 100 mL collected over a period of time not exceeding 15 minutes. Grab samples can be collected manually. Grab samples must be representative of the discharge (or the receiving stream, for instream samples).

Hazardous Substance

Any substance designated under 40 CFR Part 116 pursuant to Section 311 of the CWA.

Instantaneous flow measurement

The flow measured during the minimum time required for the flow measuring device or method to produce a result in that instance. To the extent practical, instantaneous flow measurements coincide with the collection of any grab samples required for the same sampling period so that together the samples and flow are representative of the discharge during that sampling period.

Monthly Average (concentration limit)

The arithmetic mean of all "daily discharges" of a pollutant measured during the calendar month. In the case of fecal coliform or other bacterial parameters or indicators, the geometric mean of such discharges.

Permit Issuing Authority

The Director of the Division of Water Resources.

Quarterly Average (concentration limit)

The arithmetic mean of all samples taken over a calendar quarter.

Severe property damage

Substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage excludes economic loss caused by delays in production.

Toxic Pollutant:

Any pollutant listed as toxic under Section 307(a)(1) of the CWA.

Upset

An incident beyond the reasonable control of the Permittee causing unintentional and temporary noncompliance with permit effluent limitations and/or monitoring requirements. An upset does not include noncompliance caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

Weekly Average (concentration limit)

The arithmetic mean of all "daily discharges" of a pollutant measured during the calendar week. In the case of fecal coliform or other bacterial parameters or indicators, the geometric mean of such discharges.

Section B. General Conditions**I. Duty to Comply**

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the CWA and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application [40 CFR 122.41].

- a. The Permittee shall comply with effluent standards or prohibitions established under section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
- b. The CWA provides that any person who violates section[s] 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$37,500 per day for each violation. [33 USC 1319(d) and 40 CFR 122.41(a)(2)]
- c. The CWA provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or

imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than 2 years, or both. [33 USC 1319(c)(1) and 40 CFR 122.41(a)(2)]

- d. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than 6 years, or both. [33 USC 1319(c)(2) and 40 CFR 122.41(a)(2)]
 - e. Any person who *knowingly* violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions. [40 CFR 122.41(a)(2)]
 - f. Under state law, a civil penalty of not more than \$25,000 per violation may be assessed against any person who violates or fails to act in accordance with the terms, conditions, or requirements of a permit. [North Carolina General Statutes § 143-215.6A]
 - g. Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed \$16,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$37,500. Penalties for Class II violations are not to exceed \$16,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$177,500. [33 USC 1319(g)(2) and 40 CFR 122.41(a)(3)]
2. Duty to Mitigate
The Permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit with a reasonable likelihood of adversely affecting human health or the environment [40 CFR 122.41(d)].
 3. Civil and Criminal Liability
Except as provided in permit conditions on "Bypassing" (Part II.C.4), "Upsets" (Part II.C.5) and "Power Failures" (Part II.C.7), nothing in this permit shall be construed to relieve the Permittee from any responsibilities, liabilities, or penalties for noncompliance pursuant to NCGS 143-215.3, 143-215.6 or Section 309 of the Federal Act, 33 USC 1319. Furthermore, the Permittee is responsible for consequential damages, such as fish kills, even though the responsibility for effective compliance may be temporarily suspended.
 4. Oil and Hazardous Substance Liability
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject to under NCGS 143-215.75 et seq. or Section 311 of the Federal Act, 33 USG 1321. Furthermore, the Permittee is responsible for consequential damages, such as fish kills, even though the responsibility for effective compliance may be temporarily suspended.
 5. Property Rights
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations [40 CFR 122.41(g)].
 6. Onshore or Offshore Construction
This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any navigable waters.

7. Severability

The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby [NCGS 150B-23].

8. Duty to Provide Information

The Permittee shall furnish to the Permit Issuing Authority, within a reasonable time, any information which the Permit Issuing Authority may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee shall also furnish to the Permit Issuing Authority upon request, copies of records required by this permit [40 CFR 122.41(h)].

9. Duty to Reapply

If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must apply for and obtain a new permit [40 CFR 122.41(b)].

10. Expiration of Permit

The Permittee is not authorized to discharge after the expiration date. In order to receive automatic authorization to discharge beyond the expiration date, the Permittee shall submit such information, forms, and fees as are required by the agency authorized to issue permits no later than 180 days prior to the expiration date unless permission for a later date has been granted by the Director. (The Director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.) [40 CFR 122.21(d)] Any Permittee that has not requested renewal at least 180 days prior to expiration, or any Permittee that does not have a permit after the expiration and has not requested renewal at least 180 days prior to expiration, will subject the Permittee to enforcement procedures as provided in NCGS 143-215.6 and 33 USC 1251 et. seq.

11. Signatory Requirements

All applications, reports, or information submitted to the Permit Issuing Authority shall be signed and certified [40 CFR 122.41(k)].

a. All permit applications shall be signed as follows:

- (1) For a corporation: by a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means: (a) a president, secretary, treasurer or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or (b) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures .
- (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
- (3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official [40 CFR 122.22].

b. All reports required by the permit and other information requested by the Permit Issuing Authority shall be signed by a person described in paragraph a. above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- (1) The authorization is made in writing by a person described above;
- (2) The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or well field, superintendent, a position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
- (3) The written authorization is submitted to the Permit Issuing Authority [40 CFR 122.22]

- c. Changes to authorization: If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative [40 CFR 122.22]
- d. Certification. Any person signing a document under paragraphs a. or b. of this section shall make the following certification [40 CFR 122.22]. NO OTHER STATEMENTS OF CERTIFICATION WILL BE ACCEPTED:
"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

12. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition [40 CFR 122.41(f)].

13. Permit Modification, Revocation and Reissuance, or Termination

The issuance of this permit does not prohibit the permit issuing authority from reopening and modifying the permit, revoking and reissuing the permit, or terminating the permit as allowed by the laws, rules, and regulations contained in Title 40, Code of Federal Regulations, Parts 122 and 123; Title 15A of the North Carolina Administrative Code, Subchapter 02H .0100; and North Carolina General Statute 143.215.1 et. al.

14. Annual Administering and Compliance Monitoring Fee Requirements

The Permittee must pay the annual administering and compliance monitoring fee within thirty days after being billed by the Division. Failure to pay the fee in a timely manner in accordance with 15A NCAC 02H .0105(b)(2) may cause this Division to initiate action to revoke the permit.

Section C. Operation and Maintenance of Pollution Controls

1. Certified Operator

Owners of classified water pollution control systems must designate operators, certified by the Water Pollution Control System Operators Certification Commission (WPCSOCC), of the appropriate type and grade for the system, and, for each classification must [15A NCAC 08G .0201]:

- a. designate one Operator In Responsible Charge (ORC) who possesses a valid certificate of the type and grade at least equivalent to the type and grade of the system;
- b. designate one or more Back-up Operator(s) in Responsible Charge (Back-up ORCs) who possesses a valid certificate of the type of the system and no more than one grade less than the grade of the system, with the exception of no backup operator in responsible charge is required for systems whose minimum visitation requirements are twice per year; and
- c. submit a signed completed "Water Pollution Control System Operator Designation Form" to the Commission (or to the local health department for owners of subsurface systems) countersigned by the designated certified operators, designating the Operator in Responsible Charge (ORC) and the Back-up Operator in Responsible Charge (Back-up ORC):
 - (1) 60 calendar days prior to wastewater or residuals being introduced into a new system; or
 - (2) within 120 calendar days following:
 - receiving notification of a change in the classification of the system requiring the designation of a new Operator in Responsible Charge (ORC) and Back-up Operator in Responsible Charge (Back-up ORC) of the proper type and grade; or
 - a vacancy in the position of Operator in Responsible Charge (ORC) or Back-up Operator in Responsible Charge (Back-up ORC).

- (3) within seven calendar days of vacancies in both ORC and Back-up ORC positions replacing or designating at least one of the responsibilities.

The ORC of each Class I facility (or the Back-up ORC, when acting as surrogate for the ORC) must:

- Visit the facility as often as is necessary to insure proper operation of the treatment system; the treatment facility must be visited at least weekly
- Comply with all other conditions of 15A NCAC 08G .0204.

The ORC of each Class II, III and IV facility (or the Back-up ORC, when acting as surrogate for the ORC) must:

- Visit the facility as often as is necessary to insure proper operation of the treatment system; the treatment facility must be visited at least five days per week, excluding holidays
- Properly manage and document daily operation and maintenance of the facility
- Comply with all other conditions of 15A NCAC 08G .0204.

2. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the Permittee to install and operate backup or auxiliary facilities only when necessary to achieve compliance with the conditions of the permit [40 CFR 122.41(e)].

NOTE: Properly and officially designated operators are fully responsible for all proper operation and maintenance of the facility, and all documentation required thereof, whether acting as a contract operator [subcontractor] or a member of the Permittee's staff.

3. Need to Halt or Reduce not a Defense

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the condition of this permit [40 CFR 122.41(c)].

4. Bypassing of Treatment Facilities

a. Bypass not exceeding limitations [40 CFR 122.41(m)(2)]

The Permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Paragraphs b. and c. of this section.

b. Notice [40 CFR 122.41(m)(3)]

- (1) Anticipated bypass. If the Permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass; including an evaluation of the anticipated quality and effect of the bypass.
- (2) Unanticipated bypass. The Permittee shall submit notice of an unanticipated bypass as required in Part II.E.6. (24-hour notice).

c. Prohibition of Bypass

- (1) Bypass from the treatment facility is prohibited and the Permit Issuing Authority may take enforcement action against a Permittee for bypass, unless:
 - (A) Bypass was unavoidable to prevent loss of life, personal injury or severe property damage;
 - (B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (C) The Permittee submitted notices as required under Paragraph b. of this section.
- (2) Bypass from the collection system is prohibited and the Permit Issuing Authority may take enforcement action against a Permittee for a bypass as provided in any current or future system-wide collection system permit associated with the treatment facility.

- (3) The Permit Issuing Authority may approve an anticipated bypass, after considering its adverse effects, if the Permit Issuing Authority determines that it will meet the three conditions listed above in Paragraph c. (1) of this section.

5. Upsets

- a. Effect of an upset [40 CFR 122.41(n)(2)]: An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph b. of this condition are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- b. Conditions necessary for a demonstration of upset: Any Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
- (1) An upset occurred and that the Permittee can identify the cause(s) of the upset;
 - (2) The Permittee facility was at the time being properly operated; and
 - (3) The Permittee submitted notice of the upset as required in Part II.E.6.(b) of this permit.
 - (4) The Permittee complied with any remedial measures required under Part II.B.2. of this permit.
- c. Burden of proof [40 CFR 122.41(n)(4)]: The Permittee seeking to establish the occurrence of an upset has the burden of proof in any enforcement proceeding.

6. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be utilized/disposed of in accordance with NCGS 143-215.1 and in a manner such as to prevent any pollutant from such materials from entering waters of the State or navigable waters of the United States except as permitted by the Commission. The Permittee shall comply with all applicable state and Federal regulations governing the disposal of sewage sludge, including 40 CFR 503, Standards for the Use and Disposal of Sewage Sludge; 40 CFR Part 258, Criteria For Municipal Solid Waste Landfills; and 15A NCAC Subchapter 2T, Waste Not Discharged To Surface Waters. The Permittee shall notify the Permit Issuing Authority of any significant change in its sludge use or disposal practices.

7. Power Failures

The Permittee is responsible for maintaining adequate safeguards (as required by 15A NCAC 02H .0124) to prevent the discharge of untreated or inadequately treated wastes during electrical power failures either by means of alternate power sources, standby generators or retention of inadequately treated effluent.

Section D. Monitoring and Records

1. Representative Sampling

Samples collected and measurements taken, as required herein, shall be representative of the permitted discharge. Samples collected at a frequency less than daily shall be taken on a day and time that is representative of the discharge for the period the sample represents. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other wastestream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Permit Issuing Authority [40 CFR 122.41(j)].

2. Reporting

Monitoring results obtained during the previous month(s) shall be summarized for each month and reported on a monthly Discharge Monitoring Report (DMR) Form (MR 1, 1.1, 2, 3) or alternative forms approved by the Director, postmarked no later than the last calendar day of the month following the completed reporting period.

The first DMR is due on the last day of the month following the issuance of the permit or in the case of a new facility, on the last day of the month following the commencement of discharge. Duplicate signed copies of these, and all other reports required herein, shall be submitted to the following address:

NC DEQ / Division of Water Resources / Water Quality Permitting Section
ATTENTION: Central Files
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

3. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from the true discharge rates throughout the range of expected discharge volumes. Flow measurement devices shall be accurately calibrated at a minimum of once per year and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. The Director shall approve the flow measurement device and monitoring location prior to installation.

Once-through condenser cooling water flow monitored by pump logs, or pump hour meters as specified in Part I of this permit and based on the manufacturer's pump curves shall not be subject to this requirement.

4. Test Procedures

Laboratories used for sample analysis must be certified by the Division. Permittees should contact the Division's Laboratory Certification Section (919 733-3908) or visit <https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch> for information regarding laboratory certifications.

Facilities whose personnel are conducting testing of field-certified parameters only must hold the appropriate field parameter laboratory certifications.

Test procedures for the analysis of pollutants shall conform to the EMC regulations (published pursuant to NCGS 143-215.63 et. seq.), the Water and Air Quality Reporting Acts, and to regulations published pursuant to Section 304(g), 33 USC 1314, of the CWA (as amended), and 40 CFR 136; or in the case of sludge use or disposal, approved under 40 CFR 136, unless otherwise specified in 40 CFR 503, unless other test procedures have been specified in this permit [40 CFR 122.41].

To meet the intent of the monitoring required by this permit, all test procedures must produce minimum detection and reporting levels that are below the permit discharge requirements and all data generated must be reported down to the minimum detection or lower reporting level of the procedure. If no approved methods are determined capable of achieving minimum detection and reporting levels below permit discharge requirements, then the most sensitive (method with the lowest possible detection and reporting level) approved method must be used.

5. Penalties for Tampering

The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both [40 CFR 122.41].

6. Records Retention

Except for records of monitoring information required by this permit related to the Permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR 503), the Permittee shall retain records of all monitoring information, including:

- all calibration and maintenance records
- all original strip chart recordings for continuous monitoring instrumentation
- copies of all reports required by this permit
- copies of all data used to complete the application for this permit

These records or copies shall be maintained for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time [40 CFR 122.41].

7. Recording Results

For each measurement or sample taken pursuant to the requirements of this permit, the Permittee shall record the following information [40 CFR 122.41]:

- a. The date, exact place, and time of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

8. Inspection and Entry

The Permittee shall allow the Director, or an authorized representative (including an authorized contractor acting as a representative of the Director), upon the presentation of credentials and other documents as may be required by law, to;

- a. Enter, at reasonable times, upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA, any substances or parameters at any location [40 CFR 122.41(i)].

Section E Reporting Requirements

1. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

2. Planned Changes

The Permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility [40 CFR 122.41(l)]. Notice is required only when:

- a. The alteration or addition to a permitted facility may meet one of the criteria for new sources at 40 CFR 122.29(b); or
- b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1); or
- c. The alteration or addition results in a significant change in the Permittee's sludge use or disposal practices, and such alteration, addition or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

3. Anticipated Noncompliance

The Permittee shall give advance notice to the Director of any planned changes to the permitted facility or other activities that might result in noncompliance with the permit [40 CFR 122.41(l)(2)].

4. Transfers

This permit is not transferable to any person without prior written notice to and approval from the Director in accordance with 40 CFR 122.61. The Director may condition approval in accordance with NCGS 143-215.1, in

particular NCGS 143-215.1(b)(4)b.2., and may require modification or revocation and reissuance of the permit, or a minor modification, to identify the new permittee and incorporate such other requirements as may be necessary under the CWA [40 CFR 122.41(l)(3), 122.61] or state statute.

5. Monitoring Reports

Monitoring results shall be reported at the intervals specified elsewhere in this permit [40 CFR 122.41(l)(4)].

- a. Monitoring results must be reported on a Discharge Monitoring Report (DMR) (See Part II.D.2) or forms provided by the Director for reporting results of monitoring of sludge use or disposal practices.
- b. If the Permittee monitors any pollutant more frequently than required by this permit using test procedures approved under 40 CFR Part 136 and at a sampling location specified in this permit or other appropriate instrument governing the discharge, the results of such monitoring shall be included in the calculation and reporting of the data submitted on the DMR.

6. Twenty-four Hour Reporting

- a. The Permittee shall report to the Director or the appropriate Regional Office any noncompliance that potentially threatens public health or the environment. Any information shall be provided orally within 24 hours from the time the Permittee became aware of the circumstances. A written submission shall also be provided within 5 days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance, and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance [40 CFR 122.41(l)(6)].
- b. The Director may waive the written report on a case-by-case basis for reports under this section if the oral report has been received within 24 hours.
- c. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 858-0368 or (919) 733-3300.

7. Other Noncompliance

The Permittee shall report all instances of noncompliance not reported under Part II.E.5 and 6. of this permit at the time monitoring reports are submitted. The reports shall contain the information listed in Part II.E.6. of this permit [40 CFR 122.41(l)(7)].

8. Other Information

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information [40 CFR 122.41(l)(8)].

9. Noncompliance Notification

The Permittee shall report by telephone to either the central office or the appropriate regional office of the Division as soon as possible, but in no case more than 24 hours or on the next working day following the occurrence or first knowledge of the occurrence of any of the following:

- a. Any occurrence at the water pollution control facility which results in the discharge of significant amounts of wastes which are abnormal in quantity or characteristic, such as the dumping of the contents of a sludge digester; the known passage of a slug of hazardous substance through the facility; or any other unusual circumstances.
- b. Any process unit failure, due to known or unknown reasons, that render the facility incapable of adequate wastewater treatment such as mechanical or electrical failures of pumps, aerators, compressors, etc.
- c. Any failure of a pumping station, sewer line, or treatment facility resulting in a by-pass without treatment of all or any portion of the influent to such station or facility.

Persons reporting such occurrences by telephone shall also file a written report within 5 days following first knowledge of the occurrence. Also see reporting requirements for municipalities in Part IV.C.2.c. of this permit.

10. Availability of Reports

Except for data determined to be confidential under NCGS 143-215.3 (a)(2) or Section 308 of the Federal Act, 33 USC 1318, all reports prepared in accordance with the terms shall be available for public inspection at the offices

of the Division. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in NCGS 143-215.1(b)(2) or in Section 309 of the Federal Act.

11. Penalties for Falsification of Reports

The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$25,000 per violation, or by imprisonment for not more than two years per violation, or by both [40 CFR 122.41].

12. Annual Performance Reports

Permittees who own or operate facilities that primarily collect or treat municipal or domestic wastewater and have an average annual flow greater than 200,000 gallons per day shall provide an annual report to the Permit Issuing Authority and to the users/customers served by the Permittee (NCGS 143-215.1C). The report shall summarize the performance of the collection or treatment system, as well as the extent to which the facility was compliant with applicable Federal or State laws, regulations and rules pertaining to water quality. The report shall be provided no later than sixty days after the end of the calendar or fiscal year, depending upon which annual period is used for evaluation.

The report shall be sent to:

NC DEQ / Division of Water Resources / Water Quality Permitting Section
ATTENTION: Central Files
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

PART III OTHER REQUIREMENTS

Section A. Construction

- a. The Permittee shall not commence construction of wastewater treatment facilities, nor add to the plant's treatment capacity, nor change the treatment process(es) utilized at the treatment plant unless (1) the Division has issued an Authorization to Construct (AtC) permit or (2) the Permittee is exempted from such AtC permit requirements under Item b. of this Section.
- b. In accordance with NCGS 143-215.1(a5) [SL 2011-394], no permit shall be required to enter into a contract for the construction, installation, or alteration of any treatment work or disposal system or to construct, install, or alter any treatment works or disposal system within the State when the system's or work's principle function is to conduct, treat, equalize, neutralize, stabilize, recycle, or dispose of industrial waste or sewage from an industrial facility and the discharge of the industrial waste or sewage is authorized under a permit issued for the discharge of the industrial waste or sewage into the waters of the State. Notwithstanding the above, the permit issued for the discharge may be modified if required by federal regulation.
- c. Issuance of an AtC will not occur until Final Plans and Specifications for the proposed construction have been submitted by the Permittee and approved by the Division.

Section B. Groundwater Monitoring

The Permittee shall, upon written notice from the Director, conduct groundwater monitoring as may be required to determine the compliance of this NPDES permitted facility with the current groundwater standards.

Section C. Changes in Discharges of Toxic Substances

The Permittee shall notify the Permit Issuing Authority as soon as it knows or has reason to believe (40 CFR 122.42):

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels";
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five times the maximum concentration value reported for that pollutant in the permit application.
- b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels";
 - (1) Five hundred micrograms per liter (500 µg/L);
 - (2) One milligram per liter (1 mg/L) for antimony;
 - (3) Ten times the maximum concentration value reported for that pollutant in the permit application.

Section D. Facility Closure Requirements

The Permittee must notify the Division at least 90 days prior to the closure of any wastewater treatment system covered by this permit. The Division may require specific measures during deactivation of the system to prevent adverse impacts to waters of the State. This permit cannot be rescinded while any activities requiring this permit continue at the permitted facility.

PART IV SPECIAL CONDITIONS FOR MUNICIPAL FACILITIES

Section A. Definitions

In addition to the definitions in Part II of this permit, the following definitions apply to municipal facilities:

Indirect Discharge or Industrial User

Any non-domestic source that discharges wastewater containing pollutants into a POTW regulated under section 307(b), (c) or (d) of the CWA. [40 CFR 403.3 (i) and (j) and 15A NCAC 02H .0903(b)(11)]

Interference

Inhibition or disruption of the POTW treatment processes; operations; or its sludge process, use, or disposal which causes or contributes to a violation of any requirement of the Permittee's (or any satellite POTW's if different from the Permittee) NPDES, collection system, or non-discharge permit or prevents sewage sludge use or disposal in compliance with specified applicable State and Federal statutes, regulations, or permits. [15A NCAC 02H .0903(b)(14)]

Pass Through

A discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or with discharges from other sources, causes a violation, including an increase in the magnitude or duration of a violation, of the Permittee's (or any satellite POTW's, if different from the Permittee) NPDES, collection system, or non-discharge permit. [15A NCAC 02H .0903(b)(23)]

Publicly Owned Treatment Works (POTW)

A treatment works as defined by Section 212 of the CWA, which is owned by a State or local government organization. This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes the collection system, as defined in 15A NCAC 2T .0402, only if it conveys wastewater to a POTW treatment plant. The term also means the local government organization, or municipality, as defined in section 502(4) of the CWA, which has jurisdiction over indirect discharges to and the discharges from such a treatment works. In this context, the organization may be the owner of the POTW treatment plant or the owner of the collection system into which an indirect discharger discharges. This second type of POTW may be referred to as a "satellite POTW organization." [15A NCAC 02H .0903(b)(26)]

"Significant Industrial User" or "SIU"

An Industrial User that discharges wastewater into a publicly owned treatment works and that [15A NCAC 02H .0903(b)(33)]:

1. Discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewaters); or
2. Contributes process wastewater which makes up five percent or more of the NPDES or non-discharge permitted flow limit or organic capacity of the POTW treatment plant. In this context, organic capacity refers to BOD, TSS and ammonia; or
3. Is subject to categorical standards under 40 CFR Part 403.6 and 40 CFR Parts 405-471; or
4. Is designated as such by the Permittee on the basis that the Industrial User has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, or the POTW's effluent limitations and conditions in its NPDES or non-discharge permit, or to limit the POTW's sludge disposal options;
5. Subject to approval under 15A NCAC 02H .0907(b), the Permittee may determine that an Industrial User meeting the criteria in paragraphs 1 or 2 of this definition above has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the POTW's effluent limitations and conditions in its NPDES or non-discharge permit, or to limit the POTW's sludge disposal options, and thus is not a Significant Industrial User (SIU); or
6. Subject to approval under 15A NCAC 02H .0907(b), the Permittee may determine that an Industrial User meeting the criteria in paragraph 3 of this definition above meets the requirements of 40 CFR Part 403.3(v)(2) and thus is a non-significant categorical Industrial User.

Section B. Publicly Owned Treatment Works (POTWs)

All POTWs must provide adequate notice to the Director of the following [40 CFR 122.42(b)]:

1. Any new introduction of pollutants into the POTW from an indirect discharger, regardless of the means of transport, which would be subject to section 301 or 306 of CWA if it were directly discharging those pollutants; and
2. Any substantial change in the volume or character of pollutants being introduced by an indirect discharger as influent to that POTW at the time of issuance of the permit.
3. For purposes of this paragraph, adequate notice shall include information on (1) the quality and quantity of effluent introduced into the POTW, and (2) any anticipated impact that may result from the change of the quantity or quality of effluent to be discharged from the POTW.

Section C. Municipal Control of Pollutants from Industrial Users.

1. Effluent limitations are listed in Part I of this permit. Other pollutants attributable to inputs from Industrial Users discharging to the POTW may be present in the Permittee's discharge. At such time as sufficient information becomes available to establish limitations for such pollutants, this permit may be revised to specify effluent limitations for any or all of such other pollutants in accordance with best practicable technology or water quality standards.
2. Prohibited Discharges
 - a. The Permittee shall develop and enforce their Pretreatment Program to implement the prohibition against the introduction of pollutants or discharges into the waste treatment system or waste collection system which cause or contribute to Pass Through or Interference as defined in 15A NCAC 02H .0900 and 40 CFR 403. [40 CFR 403.5(a)(1)]
 - b. The Permittee shall develop and enforce their Pretreatment Program to implement the prohibitions against the introduction of the following wastes in the waste treatment or waste collection system [40 CFR 403.5(b)]:
 - (1) Pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21;
 - (2) Pollutants which cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the works is specifically designed to accommodate such discharges;
 - (3) Solid or viscous pollutants in amounts which cause obstruction to the flow in the POTW resulting in Interference;
 - (4) Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a Discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW;
 - (5) Heat in amounts which will inhibit biological activity in the POTW resulting in Interference, but in no case heat in such quantities that the temperature at the POTW Treatment Plant exceeds 40°C (104°F) unless the Division, upon request of the POTW, approves alternate temperature limits;
 - (6) Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through;
 - (7) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; or
 - (8) Any trucked or hauled pollutants, except at discharge points designated by the POTW.
 - c. The Permittee shall investigate the source of all discharges into the POTW, including slug loads and other unusual discharges, which have the potential to adversely impact the Permittee's Pretreatment Program and/or the operation of the POTW.

The Permittee shall report such discharges into the POTW to the Director or the appropriate Regional Office. Any information shall be provided orally within 24 hours from the time the Permittee became aware of the circumstances. A written submission shall also be provided within 5 days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the discharge; the investigation into possible sources; the period of the discharge, including exact dates and times; if the discharge has not ceased, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance,

3. With regard to the effluent requirements listed in Part I of this permit, it may be necessary for the Permittee to supplement the requirements of the Federal Pretreatment Standards (40 CFR, Part 403) to ensure compliance by the Permittee with all applicable effluent limitations. Such actions by the Permittee may be necessary regarding some or all of the industries discharging to the municipal system.
4. The Permittee shall require any Industrial User (IU) discharging to the POTW to meet Federal Pretreatment Standards developed under Section 307(b) of the Act as amended (which includes categorical standards and specific local limits, best management practices and narrative requirements). Prior to accepting wastewater from any Significant Industrial User (SIU), the Permittee shall either develop and submit to the Division a new Pretreatment Program or, as necessary, a modification of an existing Pretreatment Program, for approval as required under section D below as well as 15A NCAC 02H .0907(a) and (b). [40 CFR 122.44(j)(2)]
5. This permit shall be modified, or alternatively, revoked and reissued, to incorporate or modify an approved POTW Pretreatment Program or to include a compliance schedule for the development of a POTW Pretreatment Program as required under Section 402 (b)(8) of the CWA and implementing regulations or by the requirements of the approved State pretreatment program, as appropriate.

Section D. Pretreatment Programs

Under authority of sections 307 (b) and (c) and 402(b)(8) of the CWA and implementing regulations 40 CFR 403, North Carolina General Statute 143-215.3(14) and implementing regulations 15A NCAC 02H .0900, and in accordance with the approved pretreatment program, all provisions and regulations contained and referenced in the pretreatment program submittal are an enforceable part of this permit. [40 CFR 122.44(j)(2)]

The Permittee shall operate its approved pretreatment program in accordance with Section 402(b)(8) of the CWA, 40 CFR 403, 15A NCAC 02H .0900, and the legal authorities, policies, procedures, and financial provisions contained in its pretreatment program submission and Division approved modifications thereof. Such operation shall include but is not limited to the implementation of the following conditions and requirements. Terms not defined in Part II or Part IV of this permit are as defined in 15A NCAC 02H .0903 and 40 CFR 403.3.

1. Sewer Use Ordinance (SUO)

The Permittee shall maintain adequate legal authority to implement its approved pretreatment program. [15A NCAC 02H .0903(b)(32), .0905 and .0906(b)(1); 40 CFR 403.8(f)(1) and 403.9(b)(1) and (2)]

2. Industrial Waste Survey (IWS)

The Permittee shall implement an IWS consisting of the survey of users of the POTW collection system or treatment plant, as required by 40 CFR 403.8(f)(2)(i-iii) and 15A NCAC 02H .0905 [also 40 CFR 122.44(j)(1)], including identification of all Industrial Users that may have an impact on the POTW and the character and amount of pollutants contributed to the POTW by these Industrial Users and identification of those Industrial Users meeting the definition of SIU. Where the Permittee accepts wastewater from one or more satellite POTWs, the IWS for the Permittee shall address all satellite POTW service areas, unless the pretreatment program in those satellite service areas is administered by a separate Permittee with an approved Pretreatment Program. The Permittee shall submit a summary of its IWS activities to the Division at least once every five years, and as required by the Division. The IWS submission shall include a summary of any investigations conducted under paragraph C.2.c. of this Part. [15A NCAC 02H .0903(b)(13), .0905 and .0906(b)(2); 40 CFR 403.8(f)(2) and 403.9]

3. Monitoring Plan

The Permittee shall implement a Division-approved Monitoring Plan for the collection of facility specific data to be used in a wastewater treatment plant Headworks Analysis (HWA) for the development of specific pretreatment local limits. Effluent data from the Plan shall be reported on the DMRs (as required by Parts II.D and II.E.5.). [15A NCAC 02H .0903(b)(16), .0906(b)(3) and .0905]

4. Headworks Analysis (HWA) and Local Limits

The Permittee shall obtain Division approval of a HWA at least once every five years, and as required by the Division. Within 180 days of the effective date of this permit (or any subsequent permit modification) the Permittee shall submit to the Division a written technical evaluation of the need to revise local limits (i.e., an updated HWA or documentation of why one is not needed) [40 CFR 122.44]. The Permittee shall develop, in accordance with 40 CFR 403.5(c) and 15A NCAC 02H .0909, specific Local Limits to implement the prohibitions listed in 40 CFR 403.5(a) and (b) and 15A NCAC 02H .0909. Pursuant to 40 CFR 403.5, local limits are

enforceable Pretreatment Standards as defined by 40 CFR 403.3(1). [15A NCAC 02H .0903(b)(10), .0905, and .0906(b)(4)]

5. Industrial User Pretreatment Permits (IUP) & Allocation Tables

In accordance with NCGS 143-215.1, the Permittee shall issue to all Significant Industrial Users, permits for operation of pretreatment equipment and discharge to the Permittee's collection system or treatment works. These permits shall contain limitations, sampling protocols, reporting requirements, appropriate standard and special conditions, and compliance schedules as necessary for the installation of treatment and control technologies to assure that their wastewater discharge will meet all applicable pretreatment standards and requirements. The Permittee shall maintain a current Allocation Table (AT) which summarizes the results of the HWA and the limits from all IUPs. Permitted IUP loadings for each parameter cannot exceed the treatment capacity of the POTW as determined by the HWA. [15A NCAC 02H .0906(b)(6), .0909, .0916, and .0917; 40 CFR 403.5, 403.8(f)(1)(iii); NCGS 143-215.67(a)]

6. Authorization to Construct (AtC)

The Permittee shall ensure that an Authorization to Construct permit (AtC) is issued to all applicable Industrial Users for the construction or modification of any pretreatment facility. Prior to the issuance of an AtC, the proposed pretreatment facility and treatment process must be evaluated for its capacity to comply with all Industrial User Pretreatment Permit (IUP) limitations. [15A NCAC 02H .0906(b)(7) and .0905; NCGS 143-215.1(a)(8)]

7. POTW Inspection & Monitoring of their IUs

The Permittee shall conduct inspection, surveillance, and monitoring activities as described in its Division approved pretreatment program in order to determine, independent of information supplied by Industrial Users, compliance with applicable pretreatment standards. [15A NCAC 02H .0908(e); 40 CFR 403.8(f)(2)(v)] The Permittee must:

- a. Inspect all Significant Industrial Users (SIUs) at least once per calendar year;
- b. Sample all Significant Industrial Users (SIUs) at least once per calendar year for all SIU permit-limited parameters including flow except as allowed under 15A NCAC .0908(e); and
- c. At least once per year, document an evaluation of any non-significant categorical Industrial User for compliance with the requirements in 40 CFR 403.3(v)(2), and either continue or revoke the designation as non-significant.

8. IU Self Monitoring and Reporting

The Permittee shall require all Industrial Users to comply with the applicable monitoring and reporting requirements outlined in the Division-approved pretreatment program, the industry's pretreatment permit, or in 15A NCAC 02H .0908. [15A NCAC 02H .0906(b)(5) and .0905; 40 CFR 403.8(f)(1)(v) and (2)(iii); 40 CFR 122.44(j)(2) and 40 CFR 403.12]

9. Enforcement Response Plan (ERP)

The Permittee shall enforce and obtain appropriate remedies for violations of all pretreatment standards promulgated pursuant to section 307(b) and (c) of the CWA (40 CFR 405 et. seq.), prohibitive discharge standards as set forth in 40 CFR 403.5 and 15A NCAC 02H .0909, specific local limitations, and other pretreatment requirements. All remedies, enforcement actions and other, shall be consistent with the Enforcement Response Plan (ERP) approved by the Division. [15A NCAC 02H .0903(b)(7), .0906(b)(8) and .0905; 40 CFR 403.8(f)(5)]

10. Pretreatment Annual Reports (PAR)

The Permittee shall report to the Division in accordance with 15A NCAC 02H .0908. In lieu of submitting annual reports, Modified Pretreatment Programs developed under 15A NCAC 02H .0904 (b) may be required to submit a partial annual report or to meet with Division personnel periodically to discuss enforcement of pretreatment requirements and other pretreatment implementation issues.

For all other active pretreatment programs, the Permittee shall submit two copies of a Pretreatment Annual Report (PAR) describing its pretreatment activities over the previous calendar year to the Division at the following address:

NC DEQ / Division of Water Resources / Water Quality Permitting Section
Pretreatment, Emergency Response, and Collection Systems (PERCS) Unit
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

These reports shall be submitted by March 1 of each year and shall contain the following:

- a. Narrative
A narrative summary detailing actions taken, or proposed, by the Permittee to correct significant non-compliance and to ensure compliance with pretreatment requirements;
 - b. Pretreatment Program Summary (PPS)
A pretreatment program summary (PPS) on forms or in a format provided by the Division;
 - c. Significant Non-Compliance Report (SNCR)
A list of Industrial Users (IUs) in significant noncompliance (SNC) with pretreatment requirements, and the nature of the violations on forms or in a format provided by the Division;
 - d. Industrial Data Summary Forms (IDSF)
Monitoring data from samples collected by both the POTW and the Significant Industrial Users (SIUs). These analytical results must be reported on Industrial Data Summary Forms (IDSF) or on other forms or in a format provided by the Division;
 - e. Other Information
Copies of the POTW's allocation table, new or modified enforcement compliance schedules, public notice of IUs in SNC, a summary of data or other information related to significant noncompliance determinations for IUs that are not considered SIUs, and any other information, upon request, which in the opinion of the Director is needed to determine compliance with the pretreatment implementation requirements of this permit;
11. Public Notice
The Permittee shall publish annually a list of Industrial Users (IUs) that were in significant noncompliance (SNC) as defined in the Permittee's Division-approved Sewer Use Ordinance with applicable pretreatment requirements and standards during the previous twelve month period. This list shall be published within four months of the applicable twelve-month period. [15A NCAC 02H .0903(b)(34), .0908(b)(5) and .0905 and 40 CFR 403.8(f)(2)(viii)]
 12. Record Keeping
The Permittee shall retain for a minimum of three years records of monitoring activities and results, along with support information including general records, water quality records, and records of industrial impact on the POTW and shall retain all other Pretreatment Program records as required by 15A NCAC 02H .0908(f). [15A NCAC 02H .0908(f); 40 CFR 403.12(o)]
 13. Pretreatment Program Resources
The Permittee shall maintain adequate funding and qualified personnel to accomplish the objectives of its approved pretreatment program. and retain a written description of those current levels of inspection. [15A NCAC 02H .0906(b)(9) and (10) and .0905; 40 CFR 403.8(f)(3), 403.9(b)(3)]
 14. Modification to Pretreatment Programs
Modifications to the approved pretreatment program including but not limited to local limits modifications, POTW monitoring of their Significant Industrial Users (SIUs), and Monitoring Plan modifications, shall be considered a permit modification and shall be governed by 40 CFR 403.18, 15 NCAC 02H .0114 and 15A NCAC 02H .0907.

ATTACHMENT 2

VIRGINIA ACTS OF ASSEMBLY -- 2024 SESSION

CHAPTER 316

An Act to amend the Code of Virginia by adding in Chapter 3.1 of Title 62.1 an article numbered 13, consisting of sections numbered 62.1-44.34:29 through 62.1-44.34:33, relating to Department of Environmental Quality; PFAS; identification; monitoring; PFAS Expert Advisory Council established; report.

[H 1085]

Approved April 2, 2024

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding in Chapter 3.1 of Title 62.1 an article numbered 13, consisting of sections numbered 62.1-44.34:29 through 62.1-44.34:33, as follows:

Article 13.

Per- and Polyfluoroalkyl Substances.

§ 62.1-44.34:29. Definitions.

As used in this article, unless the context requires a different meaning:

"Committee" means the PFAS Expert Advisory Committee established in § 62.1-44.34:33.

"EPA" means the U.S. Environmental Protection Agency.

"HFPO-DA" means hexafluoropropylene oxide dimer acid.

"PFAS" means per- and polyfluoroalkyl substances, which are any fluorinated substances that contain at least one fully fluorinated methyl or methylene carbon atom and any precursors of such substances. "PFAS" includes HFPO-DA, PFBS, PFHxS, PFNA, PFOA, and PFOS.

"PFAS maximum contaminant level" or "PFAS MCL" means any maximum contaminant level for any PFAS chemical or mixture of PFAS chemicals (i) established by the EPA as a national primary drinking water regulation or (ii) for the interim period of time between the EPA's proposal and final agency action for adopting a national primary drinking water regulation, the EPA's proposed level, provided that the EPA's proposed level may be used only for nonregulatory purposes of self-reporting of manufacturing or use, monitoring, and PFAS assessments as provided in this article.

"PFBS" means perfluorobutane sulfonate.

"PFHxS" means perfluorohexane sulfonate.

"PFNA" means perfluorononanoic acid.

"PFOA" means perfluorooctanoic acid.

"PFOS" means perfluorooctane sulfonate.

"Public water system" means a system that provides piped water for human consumption and (i) serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents or (ii) regularly serves at least 25 of the same persons over six months of the year.

"VDH" means the Virginia Department of Health.

"VPDES" means the Virginia Pollutant Discharge Elimination System.

§ 62.1-44.34:30. PFAS assessments for identification of sources of PFAS in public water supplies.

A. For every public water system, VDH shall assist the Department by on a quarterly basis transferring to the Department all validated monitoring results available to VDH under federal regulations or otherwise in VDH's possession that indicate PFAS MCL exceedances, including data generated by VDH's independent PFAS monitoring activities or submitted by public water systems to VDH.

B. For every public water system for which VDH has notified the Department pursuant to subsection A or the public water system has directly demonstrated to the Department that PFAS in finished water has been detected above any PFAS MCL using Method 533, Method 537.1, or other EPA-approved method for drinking water, the Department shall develop and implement a plan to prioritize and conduct PFAS assessments for identifying significant sources of PFAS in such public water system's raw water source or sources. Such prioritization plan shall be developed within six months of the initial notification by VDH pursuant to subsection A and updated annually thereafter.

C. In developing its prioritization for conducting PFAS assessments, the Department shall consider (i) data and other information available from VDH regarding public water supplies, including but not limited to applicable PFAS data; (ii) any data or other information submitted directly to the Department by public water systems on a voluntary basis; (iii) information from consultation with VDH and public water systems with finished water monitoring results above any PFAS MCL; and (iv) other data or information the Department considers useful for setting priorities, including studies published in the scientific literature.

D. In conducting PFAS assessments, the Department shall consider the results of the self-reporting process required pursuant to § 62.1-44.34:31, the results of any effluent or instream monitoring required

pursuant to § 62.1-44.34:32 or otherwise conducted by or available to the Department, and other PFAS-related data or information the Department deems useful for identifying significant sources.

E. In its reports of PFAS assessments, the Department shall identify potential regulatory and nonregulatory options for addressing each significant source of PFAS. The goal of such assessments shall be to protect public health by reducing significant sources of PFAS in raw water sources of public water systems and to ensure, to the maximum extent practicable, that the costs of public water systems are minimized.

§ 62.1-44.34:31. Self-reporting of PFAS manufacture and use for PFAS assessment.

A. For purposes of a PFAS assessment following notification to the Department pursuant to subsection B of § 62.1-44.34:30, the Department shall require any facility, if deemed by the Department to be a potential source of PFAS in the public water system's raw water source, that discharges to a surface water under a VPDES permit or that discharges to a publicly owned treatment works under an industrial pretreatment program permit to report to the Department, within 90 days after being directed by the Department, its manufacture or use of PFAS as provided in this section on a form provided by the Department. Such report shall include the chemical name and the Chemical Abstracts Service (CAS) number, if known or reasonably ascertainable, the amount manufactured or used in the preceding 12 months, and any additional information reasonably required by the Department to ascertain sources and quantities of PFAS manufactured or used.

B. For every facility that reports the use or manufacture of one or more PFAS in accordance with subsection A and that discharges to a publicly owned treatment works, the Department shall forward the information provided by the facility to such publicly owned treatment works within 30 days of receipt. Such reporting requirement shall not change the duty or discharge permits of a publicly owned treatment works.

C. Any portion of a report submitted to the Department pursuant to this section may be claimed as confidential by the submitter pursuant to § 62.1-44.21, except claims of confidentiality for the name, address, and location of the facility. Any such claim must be asserted at the time of submission in the manner prescribed on the reporting form or instructions. If no claim is made at the time of submission, the Department may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in § 62.1-44.21.

D. For purposes of this section, use of PFAS (i) means intentional use of PFAS or PFAS-containing substances as a product ingredient or as a production process aid or additive, such as wetting agents, fume suppressants, photoresists, etchants, cleaners, coatings, surfactants, or flame retardants, and (ii) does not mean use of manufacturing equipment that contains PFAS.

§ 62.1-44.34:32. Monitoring of PFAS sources for PFAS assessments.

A. For the purpose of PFAS assessments required pursuant to § 62.1-44.34:30, the Department shall require, after three months' advance notice, the owner or operator of any of the following facilities, if deemed by the Department to be a potentially significant source of PFAS in the public water system's raw water source, to perform and promptly report the results as received of representative quarterly discharge monitoring for an initial characterization period of one year, provided, however, that the Department may discontinue remaining quarterly monitoring by a facility with proper monitoring results that are below the method detection level for the first two quarters:

1. Any facility subject to self-reporting pursuant to § 62.1-44.34:31;
2. Any facility manufacturing PFAS, any electroplating or metal finishing facility using PFAS, any semiconductor or circuit board facility using PFAS, any paper or packaging manufacturing facility using PFAS, and any textile mills, tanneries, or leather, fabric, or carpet treaters using PFAS;
3. Any other facility that the Department has a reasonable basis to believe may use or manufacture PFAS based on the facility or activity type;
4. Any centralized waste treatment industrial facility;
5. Any industrial launderers defined by NAICS 812332;
6. Any facility discharging groundwater remediation wastewaters pursuant to the VPDES General Permit Regulation for Discharges from Groundwater Remediation of Contaminated Sites, Dewatering Activities of Contaminated Sites, and Hydrostatic Tests; and
7. Any airport, air base, air station, fire training facility, landfill, or other facility or site that the Department has a reasonable basis to believe has significant soil or groundwater PFAS contamination significantly impacting finished water levels.

B. For purposes of this section, using or use of PFAS (i) means intentionally using or use of PFAS or PFAS-containing substances as a product ingredient or as a production process aid or additive, such as wetting agents, fume suppressants, photoresists, etchants, cleaners, coatings, surfactants, or flame retardants, and (ii) does not mean using or use of manufacturing equipment that contains PFAS.

C. For purposes of monitoring under subsection A, the applicable laboratory test method is Method 1633 or such other method approved by the EPA that may be allowed by the Department. Monitoring reports shall include all PFAS analytes measured by the test method. For purposes of this section, the Department shall not require, and the facility and its laboratory shall be exempt from, environmental laboratory certification or accreditation requirements specifically for use of Method 1633.

§ 62.1-44.34:33. PFAS Expert Advisory Committee; report.

A. The Department, in consultation with VDH, shall establish the PFAS Expert Advisory Committee to assist the Department and VDH in identifying (i) PFAS sources through PFAS assessments and associated monitoring and reporting, (ii) public and private lab testing capacity issues, and (iii) options for reducing PFAS in source waters causing exceedances of PFAS MCLs.

B. Members of the Committee shall be appointed by the Director and shall include representatives of public drinking water and wastewater system owners, representatives of public health organizations, potential PFAS source categories, and conservation organizations with expertise in water treatment, water science, or PFAS chemistry, and other experts as determined by the Department. Members of the Committee shall receive no compensation for their service and shall not be entitled to reimbursement for expenses incurred in the performance of their duties.

C. The Department shall convene the Committee at least two times per calendar year through June 30, 2027, and thereafter as the Department deems appropriate.

D. The Department shall report annually by October 1 on its activities related to PFAS assessments, including the self-reporting process pursuant to § 62.1-44.34:31 and the discharge monitoring process pursuant to § 62.1-44.34:32, and on the activities of the Committee to the Governor and the General Assembly.

2. That this act shall not be construed as limiting the authority of the Department of Environmental Quality, the Virginia Department of Health, or the owner or operator of any publicly owned treatment works to which any user discharges wastewater to require monitoring or reporting or otherwise regulate the discharge of any PFAS chemicals or other pollutants under other applicable legal authority.

3. That for public water systems for which the Department of Environmental Quality has received notice on or before September 1, 2024, of PFAS detected above the threshold established in subsection B of § 62.1-44.34:30 of the Code of Virginia, as created by this act, the Department shall issue notice to applicable facilities by December 1, 2024, of required self-reporting under § 62.1-44.34:31 of the Code of Virginia, as created by this act, and required monitoring under § 62.1-44.34:32 of the Code of Virginia, as created by this act.