15A NCAC 02B .0505 MONITORING REQUIREMENTS

(a) General. Every person subject to this Section ("permittee") shall establish, operate, and maintain a monitoring program consistent with its National Pollutant Discharge Elimination System (NPDES) Permit or as otherwise required by the Director to characterize its wastestreams and receiving waters, evaluate treatment performance, and determine compliance with permit conditions and applicable water quality standards.

(b) Wastewater and Stream Flow Measurement.

(1) Wastewater Flows.

(A) Every permittee shall install, operate, and maintain continuous flow measuring devices with recording or totalizing capabilities for each wastewater discharge, whether treated or untreated, for which monitoring and reporting requirements are specified in its permit; except as provided in Part (C) of this Subparagraph.

(B) The permittee shall install appropriate flow measurement devices consistent with approved engineering and scientific practices to ensure the accuracy and reliability of measurements of the volume of monitored discharges. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10 percent from true discharge volumes. Flow measurement devices and their locations shall be subject to approval by the Director prior to their installation, in accordance with these requirements and 15A NCAC 02H .0138.

(C) On a case-by-case basis, the Director may approve the use of alternative flow measurement or flow control methods if such methods are reliable and sufficiently accurate to meet the aims of Paragraph (a) of this Rule.

(D) 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. Records of flow measurement device calibration shall be kept on file by the permittee for a period of at least three years. At a minimum, these records shall include the date of flow measurement device calibration and name of the person performing the calibration;

(2) Instream Flows. A reading of the U.S. Geological Survey stream flow staff gauge or reference point shall be made at the time of stream sampling in those instances so determined the Director.

(c) Sampling.

(1) Frequency and Location. Except as otherwise provided in this Rule, all industrial establishments and units of government shall take influent, effluent, and stream samples at such locations and with such frequency as shall be necessary to conduct the tests and analyses required by Rule .0508 of this Section.

(2) Establishment of Sampling Points:

(A) Sampling points as required in Rule .0508 of this Section shall be established for collecting influent and effluent samples for each facility.

(B) Sampling points shall be established in the receiving waters at one or more upstream locations and at one or more downstream locations. These locations shall be specified by the Director to ensure that upstream samples represent instream conditions prior to and subsequent to the wastewater discharge, respectively.

(3) Collection of Samples:

(A) Samples collected in receiving waters shall be grab samples.

(B) Samples of the influent and effluent of the water pollution control facility or other point source shall be composite samples, except as provided in Part (C) of this Subparagraph. Samples for facilities with design flows of 30,000 gallons per day or less shall be grab samples unless the Director determines that, due to such factors as the variability of the discharge or its potential for impacts on the receiving stream, composite samples are necessary to characterize the discharge. The Director may specify the type of sample and type of composite sampling required, in order to obtain representative samples.

(C) The following influent and effluent tests shall be made on grab samples and shall not be made on composite samples:

(i) dissolved oxygen;

(ii) temperature;

(iii) settleable matter;

(iv) turbidity;

(v) pH;
(vi) residual chlorine;
(vii) coliform bacteria (fecal or total);
(viii) cyanide;
(ix) oil and grease;
(x) sulfides;
(xi) phenols; and
(xii) volatile organics;

(4) Stream sampling may be discontinued at such times as flow conditions in the receiving waters or weather conditions present a substantial risk of injury or death to persons collecting samples. In such cases, on each day that sampling is discontinued, written justification for the discontinuance shall be specified in the monitoring report for the month in which the event occurred. This provision shall be strictly construed and shall not be utilized to avoid the requirements of this Section when performance of these requirements is attainable. When there is a discontinuance pursuant to this provision, stream sampling shall be resumed at the first opportunity after the risk period has ceased.

(d) Biological and Toxicity Monitoring. Biological and Toxicity monitoring may be required when such monitoring is necessary to establish whether the designated best use of the waters is being or may be impaired or when toxic substances are known or suspected to be present in the facility's discharge.

(e) Tests and Analyses.

(1) If a water pollution control facility receives waste influent from two or more sources, every test required by Rule .0508 of this Section for the standard industrial classification number applicable to the sources shall be performed one time, and it shall not be necessary to repeat such tests for each source; however, the tests shall be performed at the intervals specified by Rule .0508 of this Section for the applicable industrial classification requiring the most frequent test interval.

(2) If analyses of samples of any effluent or any receiving water (collected by the State or a public agency) indicate a violation of effluent limitations or water quality standards or that a violation of water quality standards may result under any projected conditions, including minimum stream flow and temperature extremes, the Director may require the person responsible for the violation or potential violation to monitor the pollutants or parameters at such points and with such frequency as he or she deems necessary and appropriate to characterize the effluent or receiving water, any real or projected violations, and the frequency and duration of such violations. If the source of the pollutant is unknown, the Director may require monitoring for specific pollutants from any suspected discharger.

(3) If the wastewaters discharged by any water pollution control facility violate any effluent limitations or water quality standards or contribute to the violation of water quality standards established by the Environmental Management Commission, the facility shall perform and report such additional tests and measurements at such frequencies and for such periods of time as the Director may require.

(4) Approved Methods of Analysis.

(A) Methods. The methods used in collection, preservation, and analysis of samples shall conform to the guidelines of the Environmental Protection Agency codified as 40 CFR Part 136, which is hereby incorporated by reference including any subsequent amendments and editions. These regulations can be accessed free of charge at http://www.gpo.gov/fdsys/. Other analytical procedures shall conform to those found in either the most recent edition of "Standard Methods for the Examination of Water and Wastewater" (Standard Methods) approved by the EPA, (published jointly by the American Public Health Association, the American Water Works Association, and the Water Environment Federation), or "Methods for Chemical Analysis of Waters and Wastes" (Methods for Chemical Analysis), or other methods as approved by the Director. Standard Methods for the Examination of Water and Wastewater is hereby incorporated by reference including any subsequent approved amendments and approved editions. The Standard Methods may be viewed free of charge at http://www.standardmethods.org. Methods for Chemical Analysis of Waters and Wastes is hereby incorporated by reference including any subsequent amendments and editions. These methods (document EPA-600-4-79-020) can be accessed free of charge at http://nepis.epa.gov.

(B) Method Sensitivity. Monitoring required for permit application or to determine compliance with effluent limitations or applicable water quality standards shall be performed using sufficiently sensitive methods in accordance with 40 CFR 122.21(e)(3) or 122.44(i), which are hereby incorporated by reference, including any subsequent amendments and editions. Biological testing shall be performed in accordance with 15A NCAC 02B .0103(b).

(5) Approval of Laboratories. Analytical determinations made pursuant to the requirements of this Section shall be made in adequately equipped laboratories staffed by person(s) competent to perform tests. Only monitoring programs that provide for the making of analytical determinations by qualified employees of the owner or by a laboratory certified by the Division under 15A NCAC 02H .0800 or 15A NCAC 02H .1100 shall be considered adequate.

(f) Process Control Monitoring Testing: The Director may require, on a case-by-case basis, process control monitoring testing suitable for the size and classification of the facility if necessary to evaluate the performance of the treatment facility or its unit processes.

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.64; 143-215.65; 143-215.66;*
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