

1 **15A NCAC 02H .0801 – is proposed for repeal as follows:**

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3 ~~**15A NCAC 02H .0801 — PURPOSE**~~

4 ~~The purpose of these Rules is to set out certification criteria for laboratory facilities performing any tests, analyses,~~  
5 ~~measurements, or monitoring required under G.S. 143 Article 21 or any rules adopted thereunder, and to establish fees~~  
6 ~~for certification program support.~~

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8 History Note: *Authority G.S. 143-215.3(a)(1); 143-215.3(a)(10);*

9 *Eff. February 1, 1976;*

10 *Amended Eff. November 2, 1992; December 1, 1984; November 1, 1978;*

11 *Temporary Amendment Eff. October 1, 2001;*

12 *Amended Eff. August 1, 2002.*

13

1 **15A NCAC 2H .0802 is proposed for repeal as follows:**

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3 **~~15A NCAC 02H .0802~~ — SCOPE**

4 ~~These Rules apply to laboratory facilities which perform and report analyses for persons subject to G.S. 143-215.1,~~  
5 ~~143-215.63, et seq.; the Environmental Management Commission Rules for Surface Water Monitoring and Reporting~~  
6 ~~found in Subchapter 2B of this Chapter, Section .0500 (Only facilities classified in accordance with Classification of~~  
7 ~~Water Pollution Control Systems Rules found in 15A NCAC 08G .0300 are subject to these Rules.); Groundwater~~  
8 ~~Rules found in 15A NCAC 02L .0100, .0200, and .0300; Waste Not Discharged to Surface Waters Rules found in~~  
9 ~~15A NCAC 02H .0200; Point Source Discharges to the Surface Waters Rules found in 15A NCAC 02H .0100. These~~  
10 ~~Rules also apply to all wastewater treatment plant laboratories for municipalities having Local Pretreatment Programs~~  
11 ~~as regulated in 15A NCAC 02H .0900. Laboratory facilities performing and reporting analyses for field parameters~~  
12 ~~only, shall be considered for certification as specified in Rule .0805(g) of this Section.~~

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14 History Note: *Authority G.S. 143-215.3(a)(1); 143-215.3(a)(10);*  
15 *Eff. February 1, 1976;*  
16 *Amended Eff. November 2, 1992; July 1, 1988; December 1, 1984;*  
17 *Temporary Amendment Eff. October 1, 2001;*  
18 *Amended Eff. August 1, 2002.*

1 **15A NCAC 02H .0803 is proposed for amendment as follows:**

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3 **15A NCAC 02H .0803 DEFINITIONS**

4 The following terms as used in this Section shall have the assigned meaning:

- 5 (1) ~~"Analytical chemistry experience" means experience analyzing samples in a chemistry laboratory~~  
6 ~~or supervising a chemistry laboratory that analyzes samples.~~
- 7 (2) ~~"Certification" means a declaration by the state that the personnel, equipment, records, quality~~  
8 ~~control procedures, and methodology cited by the applicant are accurate and that the applicant's~~  
9 ~~proficiency has been considered and found to be acceptable pursuant to these Rules.~~
- 10 (3) ~~"Certified Data" shall be defined as any analytical result, including the supporting documentation,~~  
11 ~~obtained through the use of a method or procedure which has been deemed acceptable by the State~~  
12 ~~of North Carolina for Laboratory Certification purposes pursuant to these Rules.~~
- 13 (4) ~~"Commercial Laboratory" means any laboratory, including its agents or employees, which is~~  
14 ~~seeking to analyze or is analyzing samples, including Field Parameters, for others for a fee.~~
- 15 (5) ~~"Decertification" means loss of certification.~~
- 16 (6) ~~"Falsified data or information" means data or information which has been made untrue by alteration,~~  
17 ~~fabrication, omission, substitution, or mischaracterization. The agency need not prove intent to~~  
18 ~~defraud to prove data is falsified.~~
- 19 (7) ~~"Field Parameters", for the purpose of these Rules shall include Total Residual Chlorine,~~  
20 ~~Conductivity, Dissolved Oxygen, pH, Settleable Residue, and Temperature.~~
- 21 (8) ~~"Inaccurate data or other information" means data or information that is in any way incorrect, or~~  
22 ~~mistaken.~~
- 23 (9) ~~"Industrial Laboratory" means a laboratory, including its agents or employees, operated by an~~  
24 ~~industry to analyze samples, including Field Parameters, from its wastewater or wastewater from its~~  
25 ~~water treatment plant(s).~~
- 26 (10) ~~"Municipal Laboratory" means a laboratory, including its agents or employees, operated by a~~  
27 ~~municipality or other local government to analyze samples, including Field Parameters, from its~~  
28 ~~wastewater or wastewater from its water treatment plant(s).~~
- 29 (11) ~~"Other" laboratory means a facility that does not require laboratory certification as part of its routine~~  
30 ~~operation and does not analyze samples for a fee, or is doing business as a non-profit facility.~~
- 31 (12) ~~"Pretreatment Program" means a program of waste pretreatment requirements set up in accordance~~  
32 ~~with 15A NCAC 02H .0900 and approved by the Division of Water Quality.~~
- 33 (13) ~~"State" means the North Carolina Department of Environment and Natural Resources, or its~~  
34 ~~successor.~~
- 35 (14) ~~"State Laboratory" means the Laboratory Section of the North Carolina Division of Water Quality,~~  
36 ~~or its successor.~~

- 1 ~~(15) "Unacceptable results" means those results on performance evaluation samples that exceed the~~  
2 ~~specified acceptable range as indicated by a US EPA accredited vendor.~~
- 3 ~~(16) "Uncertified data" shall be defined as any analytical result, including the supporting documentation,~~  
4 ~~obtained using a method or procedure which is not acceptable to the State Laboratory pursuant to~~  
5 ~~these Rules.~~
- 6 (1) Acceptable Proficiency Testing results means those results on Proficiency Testing samples that are  
7 within the Vendor-specified acceptable range as indicated by a State Laboratory-approved Vendor  
8 or Split samples that are within the specified acceptance range as indicated by the State Laboratory.
- 9 (2) Analytical chemistry experience means experience analyzing samples in a chemistry laboratory or  
10 supervising a chemistry laboratory that analyzes samples.
- 11 (3) Approved Procedure means an analytical procedure developed by the State Laboratory, based upon  
12 relevant reference methods, and approved for use for monitoring subject to G.S. 143-215.1 and 143-  
13 215.63, et seq.
- 14 (4) Certification means a declaration by the State Laboratory that the personnel, equipment, records,  
15 quality control procedures, and methodology cited by the applicant comply with these Rules and  
16 that the applicant's proficiency with analytical chemistry has been considered and found to be  
17 acceptable pursuant to these Rules.
- 18 (5) Certified Data means any analytical result, including the Supporting Records, obtained using a  
19 method or procedure which has been deemed acceptable by the State Laboratory for laboratory  
20 Certification purposes pursuant to these Rules.
- 21 (6) CFR means the Code of Federal Regulations.
- 22 (7) Commercial Laboratory means any laboratory, including its agents or employees, which is seeking  
23 to analyze or is analyzing samples in a chemistry laboratory or in a field setting, including Field  
24 Parameters, for others for a fee.
- 25 (8) Decertification means loss of Certification.
- 26 (9) Director means the Director of the Division of Water Resources or its successor.
- 27 (10) Division means the Division of Water Resources or its successor.
- 28 (11) Falsified Data or Information means data or information that, whether by intent or reckless disregard  
29 for accuracy, has been altered, fabricated, or otherwise mischaracterized by omission or substitution,  
30 such that the value or information reported is incorrect, incomplete, or inaccurate.
- 31 (12) Field Laboratory means a laboratory, including its agents or employees, that is seeking Certification  
32 to analyze or is analyzing samples in a chemistry laboratory or a field setting for Field Parameters  
33 only.
- 34 (13) Field Parameters for the purpose of these Rules shall include Total Residual Chlorine, Free  
35 Available Chlorine, Conductivity, Dissolved Oxygen, pH, Settleable Residue, Salinity, Sulfite,  
36 Turbidity, Temperature, Vector Attraction Reduction Option 5, Vector Attraction Reduction Option  
37 6, and Vector Attraction Reduction Option 12.

- 1           (14) Inaccurate Data or Other Information means data or information that is in any way incorrect, or  
2           mistaken.
- 3           (15) Industrial Laboratory means a laboratory, including its agents or employees, operated by an industry  
4           to analyze samples in a chemistry laboratory or in a field setting under the scope of these Rules.
- 5           (16) In-situ means in the original or natural place or site.
- 6           (17) Matrix Spike means an additional aliquot of an environmental sample to which a known  
7           concentration of the analytes of interest is added before sample preparation, cleanup, and  
8           determinative procedures have been implemented. It is used to assess the performance of the method  
9           by measuring the effects of interferences caused by the sample matrix and reflects the bias of the  
10           method for the particular matrix in question.
- 11           (18) Mobile Laboratory means a collection of analytical equipment and instruments contained in an  
12           environmentally controlled vehicle that can be deployed to a project site for other than Field  
13           Laboratory Certification purposes.
- 14           (19) Municipal Laboratory means a laboratory, including its agents or employees, operated by a  
15           municipality or other local government to analyze samples in a chemistry laboratory or in a field  
16           setting under the scope of these Rules. Municipal Laboratories may cost-share among Municipal  
17           Laboratories or charge a cost recovery fee or surcharge to operate their Pretreatment Program.
- 18           (20) NPDES means National Pollutant Discharge Elimination System.
- 19           (21) Other Laboratory means a facility that is not required to obtain State Laboratory Certification as  
20           part of its routine operation and does not analyze samples in a chemistry laboratory or in a field  
21           setting for a fee, or is doing business as a non-profit facility.
- 22           (22) Parameter means the analyte, element, compound, or property being measured.
- 23           (23) Parameter Method means a type of analytical technique, including materials and tools, used to  
24           measure a parameter.
- 25           (24) Pretreatment Program means a program of waste pretreatment requirements set up in accordance  
26           with 15A NCAC 02H .0900, et seq., and approved by the Division.
- 27           (25) Proficiency Testing (PT) sample means a performance evaluation sample whose true value is  
28           unknown to the laboratory and provided by a State Laboratory-approved Vendor to test whether the  
29           laboratory can produce analytical results within the specified acceptance criteria.
- 30           (26) Recertification means re-instating Certification at the end of the Decertification period imposed by  
31           the Division pursuant to 15A NCAC 02H .0807 by showing that it has corrected all deficiencies.
- 32           (27) Reference Temperature-measuring Device means a National Institute of Standards and Technology  
33           (NIST) traceable temperature-measuring device used only to verify the calibration of other  
34           temperature-measuring devices.
- 35           (28) Second Source means reference solutions from a different manufacturer or from the same  
36           manufacturer and identified by a different lot number.

- 1           (29) Split sample means two or more representative portions taken from a sample or subsample and  
2           analyzed by two or more laboratories approved by the State Laboratory.
- 3           (30) Standard Operating Procedure (SOP) means a laboratory’s analytical or operational procedures,  
4           described with adequate detail to allow someone similarly qualified to reproduce the procedures  
5           used to generate the test or desired result.
- 6           (31) State means the North Carolina Department of Environmental Quality or its successor.
- 7           (32) State Laboratory means the Water Sciences Section or its successor, including the Laboratory  
8           Certification Branch of the North Carolina Division of Water Resources or its successor.
- 9           (33) Supporting Record means any document or other source of information compiled, recorded, or  
10           stored in written form, by electronic process, or in any other manner that provides any information  
11           necessary to reconstruct or characterize a reported value.
- 12           (34) Unacceptable Proficiency Testing Results means those results on Proficiency Testing samples that  
13           do not fall within the Vendor-specified acceptable range as indicated by a State Laboratory approved  
14           Vendor, or Split samples that do not fall within the specified acceptable range as indicated by the  
15           State Laboratory, or a failure to meet a reporting deadline imposed by the Vendor or State  
16           Laboratory.
- 17           (35) Uncertified Data means any analytical result, including the Supporting Records, obtained using a  
18           method or procedure which is not acceptable to the State Laboratory pursuant to these Rules;  
19           analytical results produced by a laboratory for an analysis not within the Scope of these Rules  
20           pursuant to Rule .0802 of this Section; or analytical results produced by a laboratory without proper  
21           Certification.
- 22           (36) US EPA means the United States Environmental Protection Agency.
- 23           (37) Vector Attraction Reduction Option refers to an option for demonstrating a reduction in vector  
24           attraction of sewage sludge listed in 40 CFR Part 503.33(b)(1) through (b)(12).
- 25           (38) Vendor means an accredited Proficiency Testing sample provider recognized by The NELAC  
26           Institute (TNI) or its successor.

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28   *History Note: Authority G.S. 143-215.3(a)(1); 143-215.3(a)(10);*  
29           *Eff. February 1, 1976;*  
30           *Amended Eff. November 2, 1992; December 1, 1984; November 1, 1978;*  
31           *Temporary Amendment Eff. October 1, 2001;*  
32           *Amended Eff. August 1, 2002.*  
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1 **15A NCAC 02H .0804 is proposed for amendment as follows:**

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3 **15A NCAC 02H .0804 PARAMETERS FOR WHICH CERTIFICATION MAY BE REQUESTED**

4 (a) Commercial ~~laboratories~~Laboratories ~~are required to~~shall obtain ~~certification~~Certification for  
5 ~~parameters~~Parameter Methods used to generate data ~~which that~~ will be reported by the client to ~~the State~~ in accordance  
6 ~~with Rule .0802 of this Section. comply with State surface water monitoring, groundwater, and pretreatment Rules.~~  
7 Municipal and Industrial Laboratories ~~are required to~~shall obtain ~~certification~~Certification for ~~parameters~~Parameter  
8 ~~Methods used to generate data which that~~ will be reported to the State ~~in accordance with Rule .0802 of this Section.~~  
9 ~~to comply with State surface water monitoring, groundwater, and pretreatment Rules. Commercial, Municipal, and~~  
10 ~~Industrial and Other Commercial Laboratories~~facilities ~~are required to~~shall obtain ~~certification~~Certification for  
11 ~~field~~Field ~~parameters~~Parameter Methods used to generate data ~~which that~~ will be reported by the client to ~~the State~~ in  
12 ~~accordance with Rule .0802 of this Section. comply with State surface water, groundwater, and pretreatment~~  
13 ~~Rules.~~Municipal and Industrial laboratories shall obtain Certification for Field Parameter Methods used to generate  
14 ~~data that will be reported to the State in accordance with Rule .0802 of this Section.~~

15 (b) Inorganics: Each of the inorganic, physical characteristic, and microbiological analytes listed in this paragraph  
16 shall be considered a certifiable parameter. Analytical methods shall be determined from the sources listed in Rule  
17 .0805 (a) (1) of this Section. One or more analytical methods or Parameter Methods may be listed with a laboratory's  
18 certified parameters. A listing of certifiable inorganic, physical characteristic, and microbiological parameters follows:

- 19 (1) ~~Alkalinity~~
- 20 (2) ~~Aquatic Humic Substances~~
- 21 (3) ~~BOD~~
- 22 (4) ~~COD~~
- 23 (5) ~~Chloride~~
- 24 (6) ~~Chlorine, Total Residual~~
- 25 (7) ~~Chlorophyll~~
- 26 (8) ~~Coliform, Fecal~~
- 27 (9) ~~Coliform, Total~~
- 28 (10) ~~Color~~
- 29 (11) ~~Conductivity~~
- 30 (12) ~~Cyanide~~
- 31 (13) ~~Dissolved Oxygen~~
- 32 (14) ~~Fluoride~~
- 33 (15) ~~Hardness, Total~~
- 34 (16) ~~MBAS~~
- 35 (17) ~~Ammonia Nitrogen~~
- 36 (18) ~~Total Kjeldahl Nitrogen (TKN)~~
- 37 (19) ~~Nitrate plus Nitrite Nitrogen~~

- 1 ~~(20) Nitrate Nitrogen~~
- 2 ~~(21) Nitrite Nitrogen~~
- 3 ~~(22) Total Phosphorus~~
- 4 ~~(23) Orthophosphate~~
- 5 ~~(24) Oil and Grease~~
- 6 ~~(25) pH~~
- 7 ~~(26) Phenols~~
- 8 ~~(27) Residue, Settleable~~
- 9 ~~(28) Residue, Total~~
- 10 ~~(29) Residue, Total Dissolved 180°C~~
- 11 ~~(30) Residue, Total Suspended~~
- 12 ~~(31) Salmonella~~
- 13 ~~(32) Sulfate~~
- 14 ~~(33) Sulfide~~
- 15 ~~(34) Sulfite~~
- 16 ~~(35) Temperature~~
- 17 ~~(36) Total Organic Carbon (TOC)~~
- 18 ~~(37) Turbidity~~
- 19 ~~(38) Leachate Procedures~~
- 20 ~~(39) Vector Attraction Reduction All Options~~
- 21 (1) Acidity;
- 22 (2) Alkalinity;
- 23 (3) Biochemical Oxygen Demand;
- 24 (4) Bromide;
- 25 (5) Carbonaceous Biochemical Oxygen Demand;
- 26 (6) Chemical Oxygen Demand;
- 27 (7) Chloride;
- 28 (8) Chlorine, Free Available;
- 29 (9) Chlorine, Total Residual;
- 30 (10) Chlorophyll;
- 31 (11) Coliform, Fecal;
- 32 (12) Coliform, Total;
- 33 (13) Color;
- 34 (14) Conductivity/Specific Conductance;
- 35 (15) Cyanide;
- 36 (16) Dissolved Organic Carbon;
- 37 (17) Dissolved Oxygen;



- 1        (18) Enterococci;
- 2        (19) Escherichia Coliform (*E. coli*);
- 3        (20) Flash Point;
- 4        (21) Fluoride;
- 5        (22) Hardness, Total;
- 6        (23) Ignitability;
- 7        (24) Surfactants as Methylene Blue Active Surfactants;
- 8        (25) Nitrogen, Ammonia;
- 9        (26) Nitrogen, Nitrite plus Nitrate;
- 10       (27) Nitrogen, Nitrate;
- 11       (28) Nitrogen, Nitrite;
- 12       (29) Nitrogen, Total Kjeldahl;
- 13       (30) Oil and Grease;
- 14       (31) Orthophosphate;
- 15       (32) Paint Filter Liquids;
- 16       (33) pH;
- 17       (34) Phenols;
- 18       (35) Phosphorus, Total;
- 19       (36) Residue, Settleable;
- 20       (37) Residue, Total;
- 21       (38) Residue, Total Dissolved;
- 22       (39) Residue, Total Suspended;
- 23       (40) Residue, Volatile;
- 24       (41) Salinity;
- 25       (42) Salmonella;
- 26       (43) Silica;
- 27       (44) Sulfate;
- 28       (45) Sulfide;
- 29       (46) Sulfite;
- 30       (47) Temperature;
- 31       (48) Total Organic Carbon;
- 32       (48) Turbidity;
- 33       (49) Vector Attraction Reduction: Option 1;
- 34       (50) Vector Attraction Reduction: Option 2;
- 35       (51) Vector Attraction Reduction: Option 3;
- 36       (52) Vector Attraction Reduction: Option 4;
- 37       (53) Vector Attraction Reduction: Option 5;

- 1           (54) Vector Attraction Reduction: Option 6;
- 2           (55) Vector Attraction Reduction: Option 7;
- 3           (56) Vector Attraction Reduction: Option 8; and
- 4           (57) Vector Attraction Reduction: Option 12.

5 (c) Metals: Each of the metals and certified leaching procedures for metals listed in this Paragraph following will~~shall~~  
6 be considered a certifiable parameter. Metals analyte: One or more Parameter Methods shall be listed with a  
7 laboratory's certified parameters. Analytical methods shall be determined from the sources listed in Rule .0805 (a) (1)  
8 of this Section. A listing of certifiable metals and leaching procedures follows:

- 9           (1) Aluminum;
- 10          (2) Antimony;
- 11          (3) Arsenic;
- 12          (4) Barium;
- 13          (5) Beryllium;
- 14          ~~(6) Cadmium~~
- 15          ~~(7) Calcium~~
- 16          ~~(8) Chromium, Total~~
- 17          ~~(9) Chromium, Hexavalent~~
- 18          ~~(10) Cobalt~~
- 19          ~~(11) Copper~~
- 20          ~~(12) Iron~~
- 21          ~~(13) Lead~~
- 22          ~~(14) Magnesium~~
- 23          ~~(15) Manganese~~
- 24          ~~(16) Mercury~~
- 25          ~~(17) Molybdenum~~
- 26          ~~(18) Nickel~~
- 27          ~~(19) Selenium~~
- 28          ~~(20) Silver~~
- 29          ~~(21) Thallium~~
- 30          ~~(22) Tin~~
- 31          ~~(23) Vanadium~~
- 32          ~~(24) Zinc~~
- 33          (6) Boron;
- 34          (7) Cadmium;
- 35          (8) Calcium;
- 36          (9) Chromium, Hexavalent (Chromium VI);
- 37          (10) Chromium, Total;

- 1           (11) Chromium, Trivalent (Chromium III);
- 2           (12) Cobalt;
- 3           (13) Copper;
- 4           (14) Hardness, Total (Calcium + Magnesium);
- 5           (15) Iron;
- 6           (16) Lead;
- 7           (17) Lithium;
- 8           (18) Magnesium;
- 9           (19) Manganese;
- 10          (20) Mercury;
- 11          (21) Molybdenum;
- 12          (22) Nickel;
- 13          (23) Potassium;
- 14          (24) Phosphorus;
- 15          (25) Selenium;
- 16          (26) Silica;
- 17          (27) Silver;
- 18          (28) Sodium;
- 19          (29) Strontium;
- 20          (30) Thallium;
- 21          (31) Tin;
- 22          (32) Titanium;
- 23          (33) Vanadium; and
- 24          (34) Zinc.

25 (d) Organics: Each of the organic parameters analytical categories and certified leaching procedures for organics  
26 listed in this Paragraph shall be considered a certifiable parameter. One or more Parameter Methods shall be listed  
27 with a laboratory's certified parameters. Analytical methods shall be determined from the sources listed in Rule  
28 .0805(a) (1) of this Section. A listing of certifiable organic parameters and leaching procedures follows:

- 29           (1) Purgeable Halocarbons
- 30           (2) Purgeable Aromatics
- 31           (3) Acrolein, Acrylonitrile, Acetonitrile
- 32           (4) Phenols
- 33           (5) Benzidines
- 34           (6) Phthalate Esters
- 35           (7) Nitrosamines
- 36           (8) Organochlorine Pesticides
- 37           (9) Polychlorinated Biphenyls

- 1           ~~(10) Nitroaromatics and Isophorone~~
- 2           ~~(11) Polynuclear Aromatic Hydrocarbons~~
- 3           ~~(12) Haloethers~~
- 4           ~~(13) Chlorinated Hydrocarbons~~
- 5           ~~(14) Purgeable Organics~~
- 6           ~~(15) Base/Neutral and Acid Organics~~
- 7           ~~(16) Chlorinated Acid Herbicides~~
- 8           ~~(17) Organophosphorus Pesticides~~
- 9           ~~(18) Total Petroleum Hydrocarbons (TPH) California GC Method Diesel Range Organics~~
- 10          ~~(19) Total Petroleum Hydrocarbons (TPH) California GC Method Gasoline Range Organics~~
- 11          ~~(20) Nonhalogenated Volatile Organics~~
- 12          ~~(21) N Methylcarbamates~~
- 13          ~~(22) 1,2, Dibromoethane (EDB)~~
- 14          ~~(23) Extractable Petroleum Hydrocarbons~~
- 15          ~~(24) Volatile Petroleum Hydrocarbons~~
- 16          ~~(25) Chlorinated Phenolics~~
- 17          ~~(26) Adsorbable Organic Halides~~
- 18          (1) 1,2-Dibromoethane (EDB); 1,2-Dibromo-3-chloro-propane (DBCP); 1,2,3-Trichloropropane
- 19          (TCP);
- 20          (2) Acetonitrile;
- 21          (3) Acrolein, Acrylonitrile;
- 22          (4) Adsorbable Organic Halides;
- 23          (5) Base/Neutral and Acid Organics;
- 24          (6) Benzidines;
- 25          (7) Chlorinated Acid Herbicides;
- 26          (8) Chlorinated Hydrocarbons;
- 27          (9) Chlorinated Phenolics;
- 28          (10) Explosives;
- 29          (11) Extractable Petroleum Hydrocarbons;
- 30          (12) Haloethers;
- 31          (13) N-Methylcarbamates;
- 32          (14) Nitroaromatics and Isophorone;
- 33          (15) Nitrosamines;
- 34          (16) Nonhalogenated Volatile Organics;
- 35          (17) Organochlorine Pesticides;
- 36          (18) Organophosphorus Pesticides;
- 37          (19) Phenols;

- 1           (20) Phthalate Esters;
- 2           (21) Polychlorinated Biphenyls;
- 3           (22) Polynuclear Aromatic Hydrocarbons;
- 4           (23) Purgeable Aromatics;
- 5           (24) Purgeable Halocarbons;
- 6           (25) Purgeable Organics;
- 7           (26) Total Organic Halides;
- 8           (27) Total Petroleum Hydrocarbons – Diesel Range Organics;
- 9           (28) Total Petroleum Hydrocarbons – Gasoline Range Organics; and
- 10          (29) Volatile Petroleum Hydrocarbons.

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12   *History Note: Authority G.S. 143-215.3(a)(1); 143-215.3(a)(10);*  
13            *Eff. February 1, 1976;*  
14            *Amended Eff. November 2, 1992; December 1, 1984;*  
15            *Temporary Amendment Eff. October 1, 2001;*  
16            *Amended Eff. August 1, 2002.*

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1 **15A NCAC 02H .0805 is proposed for amendment as follows:**

2  
3 **15A NCAC 02H .0805 CERTIFICATION AND RENEWAL OF CERTIFICATION**

4 (a) Prerequisites and requirements for Certification. The following requirements ~~must~~shall be met by all laboratories,  
5 excluding Field Laboratories, prior to ~~certification~~Certification. Once certified, failure to comply with any of the  
6 following items ~~will~~shall be a violation of ~~certification~~Certification requirements. ~~All "Field Parameter" only facility~~  
7 ~~requirements are located in Paragraph (g) of this Rule.~~

8 ~~(1) Laboratory Procedures. Analytical methods, sample preservation, sample containers and sample~~  
9 ~~holding times shall conform to those requirements found in 40 CFR 136.3; Standard Methods for~~  
10 ~~the Examination of Water and Wastewater, 18th Edition; or Test Methods for Evaluating Solid~~  
11 ~~Waste, SW 846, Third Edition. These and subsequent amendments and editions are incorporated~~  
12 ~~by reference. This material is available for inspection at the State Laboratory, 4405 Reedy Creek~~  
13 ~~Road, Raleigh, North Carolina, 27607. Copies of the Code of Federal Regulations, 40 CFR Part~~  
14 ~~136, may be obtained for a cost of forty two dollars (\$42.00), from the Superintendent of~~  
15 ~~Documents, U.S. Government Printing Office (GPO), Superintendent of Public Documents,~~  
16 ~~Washington, DC, 20402. The publication number is 869-042-00148-6. Standard Methods for the~~  
17 ~~Examination of Water and Waste, is available for purchase from the American Water Works~~  
18 ~~Association (AWWA), 6666 West Quincy Avenue, Denver, CO 80235. The costs are as follows:~~  
19 ~~18th Edition one hundred sixty dollars (\$160.00), 19th Edition one hundred eighty dollars~~  
20 ~~(\$180.00), 20th Edition two hundred dollars (\$200.00). Copies of Test Methods for Evaluating~~  
21 ~~Solid Waste, SW 846, Third Edition may be purchased for a cost of three hundred sixty seven dollars~~  
22 ~~(\$367.00) from the Superintendent of Documents, U.S. Government Printing Office (GPO),~~  
23 ~~Washington, DC 20402. Vector Attraction Reduction Options shall be Control of Pathogens and~~  
24 ~~Vector Attraction in Sewage Sludge; EPA/625/R-92/013, Chapter 8. The document is available from~~  
25 ~~US EPA; Office of Research and Development, Washington, NC 20460 at no cost. The method for~~  
26 ~~Total Petroleum Hydrocarbons shall be the California Gas Chromatograph Method, Eisenberg,~~  
27 ~~D.M., and others, 1985, Guidelines for Addressing Fuel Leaks: California Regional Quality Control~~  
28 ~~Board San Francisco Bay Region. The method for Total Petroleum Hydrocarbons is available from~~  
29 ~~the State Laboratory at no cost. The methods for Volatile Petroleum Hydrocarbons and Extractable~~  
30 ~~Petroleum Hydrocarbons shall be Massachusetts Department of Environmental Protection, Method~~  
31 ~~for the Determination of Volatile Petroleum Hydrocarbons (VPH) and Method for the~~  
32 ~~Determination of Extractable Petroleum Hydrocarbons (EPH); January, 1998. The Director may~~  
33 ~~approve other analytical procedures that have been demonstrated to produce verifiable and~~  
34 ~~repeatable results and that have a widespread acceptance in the scientific community.~~

35 (1) Laboratory Procedures. Analytical methods, sample preservation, sample containers, and sample  
36 holding times shall conform to the requirements found in:

37 (A) 40 CFR Part 136 and 40 CFR Part 503;

- 1 (B) Standard Methods for the Examination of Water and Wastewater;  
2 (C) Test Methods for Evaluating Solid Waste, SW-846, Third Edition;  
3 (D) Control of Pathogens and Vector Attraction in Sewage Sludge; EPA/625/R-92/013;  
4 (E) Massachusetts Department of Environmental Protection, Method for the Determination of  
5 Volatile Petroleum Hydrocarbons (VPH) and Method for the Determination of Extractable  
6 Petroleum Hydrocarbons (EPH); May, 2004, Revision 1.1, et seq.; and  
7 (F) The State Laboratory may develop Approved Procedures for Field Parameters based upon  
8 the methods in any of the sources referenced above.  
9 (G) The procedures and methods listed in this Subparagraph (a) (1) are incorporated by  
10 reference, including subsequent amendments and editions.  
11 (H) This material is available for inspection at the State Laboratory, 4405 Reedy Creek Road,  
12 Raleigh, North Carolina, 27607 or may be obtained from:  
13 (i) Copies of the Code of Federal Regulations, 40 CFR Part 136 and 40 CFR Part  
14 503, may be obtained from the Superintendent of Documents, U.S. Government  
15 Printing Office (GPO), Superintendent of Public Documents, Washington, D.C.,  
16 20402 and free of charge on the internet at <http://www.ecfr.gov>.  
17 (ii) Standard Methods for the Examination of Water and Wastewater, is available for  
18 purchase from American Water Works Association (AWWA), 6666 West Quincy  
19 Avenue, Denver, CO 80235; American Public Health Association (APHA), 8001  
20 Street, NW, Washington, D.C. 20001; or Water Environment Federation (WEF),  
21 601 Wythe Street, Alexandria, VA 22314; and <http://www.standardmethods.org/>.  
22 (iii) Copies of Test Methods for Evaluating Solid Waste, SW-846, Third Edition may  
23 be obtained from the Superintendent of Documents, U.S. Government Printing  
24 Office (GPO), Washington, D.C. 20402 and free of charge on the internet at  
25 <http://www.epa.gov/osw/hazard/testmethods/sw846/online/>.  
26 (iv) Vector Attraction Reduction Options shall be Control of Pathogens and Vector  
27 Attraction in Sewage Sludge; EPA/625/R-92/013. The document is available from  
28 US EPA; Office of Research and Development, Washington, D.C. 20460 and free  
29 of charge on the internet at  
30 <http://www.water.epa.gov/scitech/wastetech/biosolids/>.  
31 (v) The methods for Volatile Petroleum Hydrocarbons and Extractable Petroleum  
32 Hydrocarbons shall be Massachusetts Department of Environmental Protection,  
33 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH) and  
34 Method for the Determination of Extractable Petroleum Hydrocarbons (EPH);  
35 May, 2004, Revision 1.1, et seq. These methods may be obtained from the  
36 Massachusetts Department of Environmental Protection, Senator William X. Wall  
37 Experiment Station, 37 Shattuck Street, Lawrence, MA, 01843-1398 and free of

1 charge on the internet at  
2 <http://www.mass.gov/eea/docs/dep/cleanup/laws/vph0504.pdf> and  
3 <http://www.mass.gov/eea/docs/dep/cleanup/laws/eph0504.pdf>, respectively.

4 (vi) State Laboratory Approved Procedures for Field Parameters may be obtained by  
5 request from the State Laboratory or on the State Laboratory Certification website  
6 at <http://portal.ncdenr.org/web/wq/lab/cert>.

7 (J) The Director or assigned delegate may approve other analytical procedures, parameters, or  
8 Parameter Methods that have been demonstrated to produce verifiable and repeatable  
9 results.

10 ~~(2) Performance Evaluations. Annually, each certified laboratory must demonstrate acceptable~~  
11 ~~performance on evaluation samples as required by these Rules.~~

12 (2) Proficiency Testing. Annually, each certified laboratory shall demonstrate acceptable performance  
13 on a minimum of one evaluation sample for each Parameter Method listed on their Certified  
14 Parameters Listing for which Proficiency Testing samples are available from more than one vendor,  
15 as required by these Rules. When two Proficiency Testing samples for the same Parameter Method  
16 are analyzed and submitted at the same time, an unacceptable result on one or both samples shall be  
17 considered the first unacceptable result for Certification purposes. A laboratory that submits  
18 Unacceptable Proficiency Testing Results for two Proficiency Testing samples for the same  
19 Parameter Method submitted at the same time shall analyze a remedial Proficiency Testing sample  
20 to demonstrate a return to control and send a corrective action report to the State Laboratory that  
21 details the root cause of the failure and the corrective actions taken to prevent recurrence.  
22 Proficiency Testing samples shall be analyzed in the same manner that routine samples are analyzed  
23 using the same staff, sample tracking, sample preparation procedures, analytical methods, standard  
24 operating procedures, calibration techniques, quality control procedures, and acceptance criteria.

25 ~~(A) Municipal and Industrial laboratories must participate in the annual Environmental~~  
26 ~~Protection Agency Discharge Monitoring Report Quality Assurance (EPA/DMR/QA)~~  
27 ~~Study by analyzing performance evaluation samples obtained from an accredited vendor~~  
28 ~~as unknowns, and reporting data produced to the State. The laboratory is responsible for~~  
29 ~~submitting acceptable results for all parameters listed on their certificate.~~

30 (A) All laboratories shall participate annually in an evaluation studies by analyzing Proficiency  
31 Testing samples obtained from a State Laboratory approved Vendor as unknowns, and  
32 arranging with the Vendor to send the graded results directly to the State Laboratory by the  
33 date due. A laboratory that submits Unacceptable Proficiency Testing Results shall analyze  
34 a remedial Proficiency Testing sample using the same Parameter Method to demonstrate a  
35 return to control and send a corrective action report to the State Laboratory that details the  
36 root cause of the failure and the corrective actions taken to prevent recurrence.



1 ~~(B)~~ Commercial laboratories must participate annually in water pollution studies by analyzing  
2 performance evaluation samples obtained from an accredited vendor as unknowns, and  
3 reporting data produced to the State. The laboratory is responsible for submitting  
4 acceptable results for all parameters listed on their certificate. When two samples for the  
5 same parameter are submitted and analyzed at the same time, an unacceptable result on one  
6 or both samples will be considered the first unacceptable result for certification purposes  
7 and a rerun sample must be submitted.

8 ~~(C)~~(B) Laboratories requesting initial ~~certification~~Certification or additional Parameter Method  
9 Certification ~~must~~shall submit an acceptable ~~performance~~ Proficiency Testing sample  
10 result from the most recent attempt analyzed within the last six months for each  
11 ~~parameter~~Parameter Method for which ~~performance~~ Proficiency Testing samples are  
12 available. Laboratories shall analyze Proficiency Testing samples obtained from a State  
13 Laboratory-approved Vendor as unknowns and arrange with the Vendor to send the graded  
14 results directly to the State Laboratory. Laboratories that submit two consecutive  
15 ~~unacceptable~~Unacceptable Proficiency Testing Results results for a particular ~~parameter~~  
16 Parameter Method ~~must~~shall then submit two consecutive ~~acceptable~~Acceptable  
17 Proficiency Testing results from the most recent attempt analyzed within the six months  
18 prior to initial Certification for that ~~parameter~~Parameter Method ~~prior to initial~~  
19 ~~certification~~.

20 ~~(D)~~(C) If Proficiency Testing ~~performance~~ samples are not available, ~~available for a parameter,~~  
21 ~~Certification~~certification for that parameter ~~will~~shall be based on the proper use of the  
22 approved procedure, the on-site inspection, ~~and~~or adherence to the other requirements in  
23 this Section. Analysis of ~~split~~Split samples may also be required if Proficiency Testing  
24 samples are not available or if analysis of Proficiency Testing samples is not representative  
25 of the entire analytical process.

26 (3) Supervisory Requirements.

27 (A) The supervisor of a ~~commercial laboratory~~Commercial Laboratory ~~must~~ have a ~~minimum~~  
28 ~~of a B.S. or A.B. Bachelor's~~ degree in chemistry or a ~~closely-related~~closely-related science  
29 curriculum from an accredited college or university plus a ~~minimum~~ of two years of  
30 laboratory experience in analytical chemistry, or a ~~two-year~~ two-year associate degree from  
31 an accredited college, university, or technical institute in chemistry technology,  
32 environmental sciences, or a ~~closely-related~~closely-related science curriculum plus a  
33 ~~minimum~~ of four years of experience in analytical chemistry.

34 (B) The supervisor of a ~~municipal or industrial waste water treatment plant~~ non-Commercial  
35 Municipal, Industrial, Mobile or Other Laboratory ~~laboratory~~ ~~must~~shall have a ~~minimum~~ of  
36 a ~~B.S. or A.B. Bachelor's~~ degree in chemistry or a ~~closely-related~~closely-related science  
37 curriculum from an accredited college or university plus a ~~minimum~~ of six months of

laboratory experience in analytical chemistry or an equivalent combination of education and work experience, or a ~~two-year~~ two-year associate degree from an accredited college, university, or technical institute in chemistry technology, environmental sciences, or a ~~closely-related~~ closely related science curriculum plus a ~~minimum~~ of two years of experience in analytical chemistry or an equivalent combination of education and work experience. Non-degree supervisors ~~must~~ shall have ~~at least~~ six years of laboratory experience in analytical chemistry or an equivalent combination of education and work experience.

(C) All laboratory supervisors ~~are~~ shall be subject to review by the State Laboratory. One person may serve as supervisor of no more than two certified laboratories. The supervisor shall provide personal and direct supervision of the technical personnel and be held responsible for the proper performance and reporting of all analyses made for these Rules. The supervisor ~~must~~ shall work in the laboratory or ~~visit~~ contact the laboratory once each day of normal operations and Supporting Records shall be maintained as evidence of this supervision. If the supervisor is to be absent, the supervisor shall arrange for a substitute capable of insuring the proper performance of all laboratory procedures, however, the substitute supervisor ~~cannot~~ shall not be in charge for more than ~~six~~ twelve consecutive weeks. ~~Existing laboratory supervisors that do not meet the requirements of this Rule may be accepted after review by the State Laboratory and meeting all other certification requirements.~~ Previous laboratory-related performance ~~will~~ shall be considered when reviewing the qualifications of a potential laboratory supervisor.

(4) Laboratory Manager. Each laboratory ~~must~~ shall designate a laboratory manager and include ~~his~~ their name and title on the application for ~~certification~~ Certification. The laboratory manager shall be administratively above the laboratory supervisor and will be in responsible charge in the event the laboratory supervisor ceases to be employed by the laboratory and will be responsible for filling the laboratory supervisor position with a replacement qualified pursuant to these Rules. At ~~commercial laboratories,~~ Commercial Laboratories, where the owner is the laboratory supervisor, the laboratory manager and laboratory supervisor may be the same person if there is no one administratively above the laboratory supervisor.

(5) Application. Each laboratory requesting initial ~~state certification~~ Certification shall submit an application ~~in duplicate,~~ accompanied by the application fee and the laboratory's Quality Assurance ~~Manual~~ Manual, including Standard Operating Procedures for all requested Parameter Methods, to the State Laboratory. Separate application and Certification shall be required for each Mobile Laboratory and the applicant shall supply the vehicle make, vehicle identification number, and license number. Separate application and ~~certification~~ Certification shall be required for all stationary laboratories maintained on separate premises even though operated under the same management; however, separate ~~certification~~ Certification is not shall not be required for separate

1 buildings on the same or adjoining grounds. Analysis of Field Parameters away from the physical  
2 location of the laboratory shall be permitted without separate Certification. After receiving a  
3 completed application and prior to issuing ~~certification~~, Certification, a representative of the State  
4 Laboratory may visit each laboratory to verify the information in the application and the adequacy  
5 of the laboratory.

6 (6) Properly Maintained Facilities, Supplies, and Equipment. ~~Facilities and equipment.~~ Each laboratory  
7 requesting ~~certification~~ Certification must shall be properly maintained so as to ensure the security  
8 and integrity of samples. Samples shall be analyzed in such a manner that contamination or error  
9 will not be introduced. Each facility shall contain or be equipped with the following:

10 (A) — ~~A minimum of 150 sq. ft. of laboratory space;~~

11 (B) — ~~A minimum of 12 linear feet of laboratory bench space;~~

12 (C) — ~~A sink with hot and cold water;~~

13 (D) — ~~An analytical balance capable of weighing 0.1 mg, mounted on a shock proof table;~~

14 (E) — ~~A refrigerator of adequate size to store all samples and maintain temperature of four~~  
15 ~~degrees Celsius;~~

16 (F) — ~~A copy of each approved analytical procedure being used in the laboratory;~~

17 (G) — ~~A source of distilled or deionized water that will meet the minimum criteria of the approved~~  
18 ~~methodologies;~~

19 (H) — ~~Glassware, chemicals, supplies, and equipment required to perform all analytical~~  
20 ~~procedures included in their certification.~~

21 (A) A source of water that will meet the minimum criteria of the approved methodologies; and

22 (B) Glassware, chemicals, supplies, and equipment required to perform all tests, analyses,  
23 measurements, or monitoring included in their Certification.

24 ~~(7) Analytical Quality Control Program. Each laboratory shall develop and maintain a document~~  
25 ~~outlining the analytical quality control practices used for the parameters included in their~~  
26 ~~certification. Supporting records shall be maintained as evidence that these practices are being~~  
27 ~~effectively carried out. The quality control document shall be available for inspection by the State~~  
28 ~~Laboratory. The following are requirements for certification and must be included in each certified~~  
29 ~~laboratory's quality control program:~~

30 (A) — ~~All analytical data pertinent to each certified analysis must be filed in an orderly manner~~  
31 ~~so as to be readily available for inspection upon request.~~

32 (B) — ~~Excluding Oil and Grease, all residue parameters, leachate extractions, residual chlorine,~~  
33 ~~and coliform, analyze one known standard in addition to calibration standards each day~~  
34 ~~samples are analyzed to document accuracy. Analyze one suspended residue, one~~  
35 ~~dissolved residue, one residual chlorine and one oil and grease standard quarterly. For~~  
36 ~~residual chlorine, all calibration standards required by the approved procedure in use and~~  
37 ~~by EPA must be analyzed.~~

- 1 ~~(C) — Except for Oil and Grease (EPA Method 413.1), settleable solids or where otherwise~~  
2 ~~specified in an analytical method, analyze five percent of all samples in duplicate to~~  
3 ~~document precision. Laboratories analyzing less than 20 samples per month must analyze~~  
4 ~~at least one duplicate each month samples are analyzed.~~
- 5 ~~(D) — Any quality control procedures required by a particular approved method shall be~~  
6 ~~considered as required for certification for that analysis.~~
- 7 ~~(E) — All quality control requirements in these Rules as set forth by the State Laboratory.~~
- 8 ~~(F) — Any time quality control results indicate an analytical problem, the problem must be~~  
9 ~~resolved and any samples involved must be rerun if the holding time has not expired.~~
- 10 ~~(G) — All analytical records must be available for a period of five years. Records, which are~~  
11 ~~stored only on electronic media, must be maintained and supported in the laboratory by all~~  
12 ~~hardware and software necessary for immediate data retrieval and review.~~
- 13 ~~(H) — All laboratories must use printed laboratory bench worksheets that include a space to enter~~  
14 ~~the signature or initials of the analyst, date of analyses, sample identification, volume of~~  
15 ~~sample analyzed, value from the measurement system, factor and final value to be reported~~  
16 ~~and each item must be recorded each time samples are analyzed. The date and time BOD~~  
17 ~~and coliform samples are removed from the incubator must be included on the laboratory~~  
18 ~~worksheet.~~
- 19 ~~(I) — For analytical procedures requiring analysis of a series of standards, the concentrations of~~  
20 ~~these standards must bracket the concentration of the samples analyzed. One of the~~  
21 ~~standards must have a concentration equal to the laboratory's lower reporting concentration~~  
22 ~~for the parameter involved. For metals by AA or ICP, a series of at least three standards~~  
23 ~~must be analyzed along with each group of samples. For colorimetric analyses, a series of~~  
24 ~~five standards for a curve prepared annually or three standards for curves established each~~  
25 ~~day or standards as set forth in the analytical procedure must be analyzed to establish a~~  
26 ~~standard curve. The curve must be updated as set forth in the standard procedures, each~~  
27 ~~time the slope changes by more than 10 percent at mid range, each time a new stock~~  
28 ~~standard is prepared, or at least every twelve months. Each analyst performing the~~  
29 ~~analytical procedure must produce a standard curve.~~
- 30 ~~(J) — Each day an incubator, oven, waterbath or refrigerator is used, the temperature must be~~  
31 ~~checked, recorded, and initialed. During each use, the autoclave maximum temperature~~  
32 ~~and pressure must be checked, recorded, and initialed.~~
- 33 ~~(K) — The analytical balance must be checked with one class S, or equivalent, standard weight~~  
34 ~~each day used and at least three standard weights quarterly. The values obtained must be~~  
35 ~~recorded in a log and initialed by the analyst.~~
- 36 ~~(L) — Chemicals must be dated when received and when opened. Reagents must be dated and~~  
37 ~~initialed when prepared.~~

1 ~~(M) — A record of date collected, time collected, sample collector, and use of proper preservatives~~  
2 ~~must be maintained. Each sample must clearly indicate the State of North Carolina~~  
3 ~~collection site on all record transcriptions.~~

4 ~~(N) — At any time a laboratory receives samples which do not meet sample collection, holding~~  
5 ~~time, or preservation requirements, the laboratory must notify the sample collector or client~~  
6 ~~and secure another sample if possible. If another sample cannot be secured, the original~~  
7 ~~sample may be analyzed but the results reported must be qualified with the nature of the~~  
8 ~~infraction(s) and the laboratory must notify the State Laboratory about the infraction(s).~~  
9 ~~The notification must include a statement indicating corrective actions taken to prevent the~~  
10 ~~problem for future samples.~~

11 ~~(O) — All thermometers must meet National Institute of Standards and Technology (NIST)~~  
12 ~~specifications for accuracy or be checked, at a minimum annually, against a NIST traceable~~  
13 ~~thermometer and proper corrections made.~~

14 (7) Analytical Quality Assurance and Quality Control Program. Each laboratory shall have a  
15 documented analytical quality assurance and quality control program. Each laboratory shall have a  
16 copy of each approved test, analysis, measurement, or monitoring procedure being used in the  
17 laboratory. Each laboratory shall develop and maintain documentation outlining the analytical  
18 quality control practices used for the Parameter Methods included in their Certification, including  
19 Standard Operating Procedures for each certified Parameter Method. Quality Assurance, Quality  
20 Control, and Standard Operating Procedure documentation shall indicate the effective date of the  
21 document and be reviewed every two years and updated if changes in procedures are made. Each  
22 laboratory shall have a formal process to track and document review dates and any revisions made  
23 in all of their Quality Assurance, Quality Control, and Standard Operating Procedure documents.  
24 Supporting Records shall be maintained as evidence that these practices are implemented. The  
25 Quality Assurance, Quality Control, and Standard Operating Procedure documents shall be  
26 available for inspection by the State Laboratory. The following are requirements for Certification  
27 and shall be included in each certified laboratory's Quality Assurance and Quality Control program.  
28 For analysis of Field Parameters, a certified laboratory shall follow the quality assurance and quality  
29 control requirements in Paragraphs (g) (1) through (9) of this Rule.

30 (A) Unless specified by the method or this Rule, each laboratory shall establish performance  
31 acceptance criteria for all Quality Control analyses. Each laboratory shall calculate and  
32 document the precision and accuracy of all Quality Control analyses with each sample set.  
33 When the method of choice specifies performance acceptance criteria for precision and  
34 accuracy, and the laboratory chooses to develop laboratory-specific limits, the laboratory-  
35 specific limits shall not be less stringent than the criteria stated in the approved method.

36 (B) If quality control results fall outside established limits or indicate an analytical problem,  
37 the laboratory shall identify the root cause of the failure. The problem shall be resolved

1 through corrective action, the corrective action process documented and any samples  
2 involved shall be reanalyzed, if possible. If the sample cannot be reanalyzed, or if the  
3 quality control results continue to fall outside established limits or indicate an analytical  
4 problem, the results shall be qualified as such.

5 (C) Except where otherwise specified in an analytical method, laboratories shall analyze five  
6 percent of all samples in duplicate to document precision. Laboratories analyzing fewer  
7 than 20 samples per month shall analyze one duplicate during each month that samples are  
8 analyzed.

9 (D) Unless the referenced method states a greater frequency or the parameter is not amenable  
10 to spiking, laboratories shall spike 5% of samples monthly. Laboratories analyzing fewer  
11 than 20 samples per month shall analyze one Matrix Spike during each month that samples  
12 are analyzed.

13 (E) All analytical records, including original observations and information necessary to  
14 facilitate historical reconstruction of the calculated results, shall be maintained for five  
15 years. All analytical data and records pertinent to each certified analysis shall be accurate,  
16 filed in an orderly manner, and available for inspection upon request. All analytical records  
17 shall be readable and safeguarded against unauthorized amendment, obliteration, erasures,  
18 overwriting, and corruption. Records that are stored only on electronic media shall be  
19 maintained throughout the five-year retention period and supported in the laboratory by all  
20 hardware and software necessary for immediate data retrieval and review. All  
21 documentation errors shall be corrected by drawing a single line through the error so that  
22 the original entry remains legible. Entries shall not be obliterated by erasures or markings.  
23 Wite-Out®, correction tape or similar products designed to obliterate documentation shall  
24 not to be used; instead, the correction shall be written adjacent to the error. The correction  
25 shall be initialed by the responsible individual and the date of change documented. All  
26 manual data and log entries shall be written in indelible ink.

27 (F) All laboratories shall use printable laboratory benchsheets. Certified Data shall be traceable  
28 to the associated sample analyses and shall consist of:

29 (i) the method or Standard Operating Procedure;

30 (ii) the laboratory identification;

31 (iii) the instrument identification;

32 (iv) the sample collector;

33 (v) the signature or initials of the analyst;

34 (vi) the date and time of sample collection;

35 (vii) the date of sample analyses

1 (viii) the time of sample analyses (when required to document a required holding time  
2 or when time critical steps are imposed by the method, a federal regulation or this  
3 Rule);

4 (ix) sample identification;

5 (x) sample preparation, where applicable;

6 (xi) the volume of sample analyzed, where applicable;

7 (xii) the proper units of measure;

8 (xiii) the dilution factor, where applicable;

9 (xiv) all manual calculations;

10 (xv) all quality control assessments;

11 (xvi) the value from the measurement system;

12 (xvii) the final value to be reported; and

13 (xviii) any other data needed to reconstruct the final calculated result.

14 Each item shall be recorded each time samples are analyzed. The date and time samples  
15 are placed into and removed from ovens, water baths, incubators and other equipment shall  
16 be documented if a time limit is required by the method.

17 (G) If certified for total suspended residue, total dissolved residue or total residue, laboratories  
18 shall analyze one standard monthly during each month samples are analyzed.

19 (H) For analytical procedures requiring analysis of a series of standards, the concentrations of  
20 these standards shall bracket the range of the sample concentrations measured. One of the  
21 standards shall have a concentration equal to or less than the laboratory's lowest reporting  
22 concentration for the parameter involved. All data sets shall reference the corresponding  
23 calibration. Laboratories shall analyze or back-calculate a standard at the same  
24 concentration as the lowest reporting concentration each day samples are analyzed. A  
25 calibration blank and calibration verification standard shall be analyzed prior to sample  
26 analysis, after every tenth sample and at the end of each sample group, unless otherwise  
27 specified by the method, to check for carry over and calibration drift.

28 (i) The concentration of reagent, method, and calibration blanks shall not exceed  
29 50% of the lowest reporting concentration or as otherwise specified by the  
30 reference method.

31 (ii) Laboratories shall analyze one known second source standard to verify the  
32 accuracy of standard preparation if an initial calibration is performed and in  
33 accordance with the referenced method requirements thereafter.

34 (iii) For electrode analyses, a series of two or more non-zero standards shall be used.

35 (iv) For metals analyses, a series of three or more non-zero standards or standards as  
36 set forth in the analytical procedure shall be analyzed along with each sample set  
37 shall be used.

1                   (v)       For colorimetric analyses, a series of five or more non-zero standards for a curve  
2                               prepared every twelve months or three or more non-zero standards for curves  
3                               established each day, or standards as set forth in the analytical procedure, shall be  
4                               analyzed to establish a calibration curve. A manufacturer's factory-set calibration  
5                               (internal curve) shall be verified with the same number of standards and frequency  
6                               as a prepared curve.

7                   (vi)       For ion chromatographic analyses, a series of five or more non-zero standards for  
8                               a curve prepared every twelve months or three or more non-zero standards for  
9                               curves established each day, or standards as set forth in the analytical procedure,  
10                              shall be analyzed to establish a calibration curve.

11               (I)       Each day of normal business operations during which samples are placed into or removed  
12                              from an incubator, oven, water bath, refrigerator, or other temperature controlled device,  
13                              the temperature shall be checked, recorded, dated, and initialed. If a method requires more  
14                              frequent monitoring, the method shall be followed. During each use, proper operation of  
15                              the autoclave shall be verified and adequate temperature and pressure, cycle time, and items  
16                              autoclaved shall be checked, recorded, dated, and initialed.

17               (J)       The analytical balance shall be checked with one ASTM Type 1, Class 1 or 2, or equivalent  
18                              standard weight each day used. These weights shall be verified every five years. The  
19                              analytical balance shall be verified monthly with three ASTM Type 1, Class 1 or 2, or  
20                              equivalent standard weights across the range of use. The values obtained shall be recorded,  
21                              dated, and initialed. Laboratory analytical balances shall be serviced by a metrology vendor  
22                              or technician every 12 months to verify that the balance is functioning within  
23                              manufacturer's specifications.

24               (K)       Chemical containers shall be dated when received and when opened. Reagent containers  
25                              shall be dated, identified, and initialed when prepared. Chemicals and reagents exceeding  
26                              the expiration date shall not be used. The laboratory shall have a documented system of  
27                              traceability for the purchase, preparation and use of all chemicals, reagents, standards, and  
28                              consumables.

29               (L)       A record of sample collection date, sample collection time, sample collector, and the use  
30                              of proper preservatives and preservation techniques shall be maintained. Each North  
31                              Carolina sample shall indicate the collection site on all record transcriptions.

32               (M)       Sample preservation shall be verified and documented. If a laboratory receives a sample  
33                              subject to G.S. 143-215.1 and 143-215.63, et seq. that does not meet sample collection,  
34                              holding time, or preservation requirements, the laboratory shall document the incident,  
35                              notify the sample collector or client, and secure another sample that meets the regulatory  
36                              requirements, if possible. If another viable sample cannot be secured, the original sample  
37                              may be analyzed but the results reported shall be qualified with the nature of the sample



1 collection, holding time, or preservation infractions and the laboratory shall notify the State  
2 Laboratory of the infractions. The notification shall include a statement indicating  
3 corrective action taken to prevent future infractions.

4 (N) All temperature-measuring devices shall have accuracy appropriate for its intended use.  
5 All temperature-measuring devices shall be used, stored, and maintained according to the  
6 manufacturer's instructions.

7 (i) Reference Temperature-Measuring Devices shall meet National Institute of  
8 Standards and Technology (NIST) specifications for accuracy and shall be  
9 recalibrated in accordance with the manufacturer's recalibration date not to  
10 exceed five years. If no recalibration date is given, the Reference Temperature-  
11 Measuring Device shall be recalibrated every five years.

12 (ii) Excluding digital, incubator, and infrared temperature-measuring devices, all  
13 non-Reference Temperature-Measuring Devices shall be verified at the  
14 temperature of use every twelve months against a Reference Temperature-  
15 Measuring Device and their accuracy shall be corrected.

16 (iii) Digital temperature-measuring devices and temperature-measuring devices used  
17 in incubators shall be verified at the temperature of use every three months against  
18 a Reference Temperature-Measuring Device and their accuracy shall be corrected.

19 (iv) Infrared temperature-measuring devices shall be verified every three months at  
20 three different temperatures over the temperature range of use against a Reference  
21 Temperature-Measuring Device and their accuracy shall be corrected. Each day  
22 of use, infrared temperature-measuring devices shall be verified against a non-  
23 Reference Temperature-Measuring Device that meets NIST specifications for  
24 accuracy. If the infrared temperature-measuring device does not agree within 0.5  
25 degrees Celsius during the daily verification, corrective action must be taken.

26 (O) Mechanical volumetric liquid-dispensing devices (e.g., fixed and adjustable auto-pipettors  
27 and bottle-top dispensers) used for critical volume measurements shall be calibrated once  
28 every six months.

29 (P) Each laboratory shall develop and implement a documented training program that includes  
30 documentation that:

31 (i) staff have the education, training, experience, or demonstrated skills needed to  
32 generate quality control results within method-specified limits and/or that meet  
33 the requirements of these Rules;

34 (ii) staff have read the laboratory Quality Assurance Manual and/or applicable  
35 Standard Operating Procedures; and

36 (iii) staff have obtained acceptable results on Proficiency Testing samples pursuant to  
37 15A NCAC 2H .0803 (1) or other demonstrations of proficiency.

1           ~~(8) Decertification Requirements. Municipal and industrial laboratories that cannot meet initial~~  
2           ~~certification requirements must comply with the Decertification Requirements as set forth in Rule~~  
3           ~~.0807(e) of this Section.~~

4 (b) Issuance of Certification.

5           (1) Upon compliance with these Rules, ~~certification~~Certification shall be issued by the Director  
6           ~~Division of Water Quality, Department of Environmental Quality or his assigned delegate, for each~~  
7           ~~of the applicable parameters~~ Parameter Methods requested within 30 days of receipt of the initial  
8           ~~Certification invoice payment.~~

9           (2) Initial ~~certifications~~Certifications shall be valid for the remainder of the applicable Certification  
10           ~~cycle that begins on January 1 and is valid for one year. issued for prorated time periods to schedule~~  
11           ~~all certification renewals on the first day valid for one year.~~

12 (c) Maintenance of Certification.

13           (1) To maintain ~~certification~~Certification for each ~~parameter~~Parameter Method, a certified laboratory  
14           ~~must~~shall analyze ~~up to four performance evaluation~~ one Proficiency Testing sample ~~samples~~ per  
15           ~~parameter~~Parameter Method per ~~year~~year, ~~submitted by an accredited vendor as an unknown.~~  
16           ~~Laboratories submitting unacceptable results on a performance evaluation samples may be required~~  
17           ~~to analyze more than four samples per year.~~A laboratory may be asked to analyze additional  
18           ~~Proficiency Testing samples for a Parameter Method if a question about the accuracy of data~~  
19           ~~produced arises, if there are changes in equipment or personnel, if inaccurate information is reported~~  
20           ~~with Proficiency Testing results, or if Unacceptable Proficiency Testing Results are submitted.~~

21           (2) In addition, if a Proficiency Testing sample is not available, the State Laboratory may request the  
22           ~~analysis of Split samples. that samples be split into two equal representative portions, one part going~~  
23           ~~to the State and the other to the certified laboratory for analysis.~~Acceptable Split sample results shall  
24           ~~be determined by the State Laboratory using scientifically valid statistical methodology.~~

25           (3) The State ~~laboratory~~Laboratory may submit or require ~~clients~~certified laboratories to ~~submit~~analyze  
26           ~~blind-performance~~Proficiency Testing samples or ~~split~~Split samples under direction of State  
27           ~~Laboratory personnel if there is a question about the accuracy of data produced, if Proficiency~~  
28           ~~Testing samples are not available or if analysis of Proficiency Testing samples does not represent~~  
29           ~~the entire analytical process.~~

30           (4) A certified laboratory shall be subject to periodic announced or unannounced inspections during the  
31           ~~certification~~Certification period and shall make time and all records pursuant to 15A NCAC 2H  
32           ~~.0805(a)(7)(E) available for inspections~~ inspection and ~~must supply copies of records for any~~  
33           ~~investigation upon written request by the State Laboratory.~~

34           ~~(5) A certified laboratory must provide the State Laboratory with written notice of laboratory supervisor~~  
35           ~~or laboratory manager changes within 30 days of such changes.~~

36           ~~(6) A certified laboratory must submit written notice of any changes of location, ownership, address,~~  
37           ~~name or telephone number within 30 days of such changes.~~

1 ~~(7) A certified laboratory must submit a written amendment to the certification application each time~~  
2 ~~that changes occur in methodology, reporting limits, and major equipment. The amendment must~~  
3 ~~be received within 30 days of such changes.~~

4 (5) A certified laboratory shall supply copies of all records pursuant to 15A NCAC 2H .0805(a)(7)(E)  
5 for any investigation upon written request by the State Laboratory.

6 (6) A certified laboratory shall provide the State Laboratory with written notice of laboratory supervisor  
7 or laboratory manager changes within 30 days of such changes.

8 (7) A certified laboratory shall submit written notice of any changes of location, ownership, address,  
9 name, or telephone number within 30 days of such changes.

10 (d) ~~Certification Renewals~~ Renewals.

11 (1) Certification renewals of laboratories shall be issued for one year.

12 (e) ~~Data reporting~~ Reporting.

13 (1) Certified ~~commercial laboratories~~ Commercial Laboratories ~~must~~ shall provide ~~make~~ data reports to  
14 their clients that are signed by the laboratory supervisor. This ~~duty~~ signature authority may be  
15 delegated in writing; ~~however, the responsibility shall remain with the supervisor.~~

16 (2) ~~Whenever~~ If a certified ~~commercial laboratory~~ Laboratory refers or subcontracts analysis of samples  
17 to another laboratory certified laboratory for ~~analyses,~~ the Parameter, the referring laboratory  
18 ~~must~~ shall supply the date and time samples were collected to insure holding times are met.  
19 ~~Subcontracted~~ All record transcriptions of subcontracted samples must shall clearly indicate that the  
20 collection site is in ~~the State of North Carolina~~ Carolina, ~~as the collection site on all record~~  
21 ~~transcriptions.~~ Laboratories may subcontract sample fractions, extracts, ~~leachates~~ leachates, and  
22 other sample preparation products provided that adherence to all Rules and requirements of 15A  
23 NCAC 02H .0800 are ~~is~~ documented. The initial client requesting the analyses ~~must~~ shall receive the  
24 original or a copy of the report made by the laboratory that performs the analyses. Each reported  
25 result shall be traceable to the laboratory that performed the analysis on the final report.

26 (3) All ~~uncertified data~~ Uncertified Data ~~must~~ shall be clearly documented as such on the benchsheet and  
27 on the final report.

28 (4) Sample results reported below the lowest reporting concentration, if required by the data receiver,  
29 shall be qualified as an estimated value.

30 (5) Reported data associated with Quality Control failures, improper sample collection, holding time  
31 exceedances, or improper preservation shall be qualified as such.

32 (f) Discontinuation of Certification.

33 (1) A laboratory may discontinue ~~certification~~ Certification for any or all ~~parameters~~ Parameter Methods  
34 by making a written request to the State Laboratory.

35 (2) After discontinuation of ~~certification~~ Certification, a laboratory ~~may~~ shall be recertified by meeting  
36 the requirements for initial ~~certification~~ Certification; however, laboratories that discontinue  
37 ~~certification~~ Certification during any investigation shall be subject to Rule .0808 of this Section.

1 (g) Prerequisites and ~~Requirements~~requirements for Field Laboratory ParameterCertification. ~~Only the following~~  
2 ~~requirements must be met prior to certification for Field Parameter Laboratories.~~Laboratories that meet the  
3 requirements of this Paragraph shall be certified as Field Laboratories. Once certified, failure to comply with any of  
4 the following items ~~will~~shall be a violation of ~~certification~~Certification requirements.

5 (1) ~~Data pertinent to each analysis must be maintained for five years. Certified Data must consist of~~  
6 ~~date collected, time collected, sample site, sample collector, and sample analysis time. The field~~  
7 ~~benchsheets must provide a space for the signature or initials of the analyst, and proper units of~~  
8 ~~measure for all analyses.~~

9 (2) ~~A record of instrument calibration where applicable, must be filed in an orderly manner so as to be~~  
10 ~~readily available for inspection upon request.~~

11 (3) ~~A copy of each approved analytical procedure must be available to each analyst.~~

12 (4) ~~Each facility must have glassware, chemicals, supplies, equipment, and a source of distilled or~~  
13 ~~deionized water that will meet the minimum criteria of the approved methodologies.~~

14 (5) ~~Supervisors of laboratories certified for Field Parameters only must meet the requirements of~~  
15 ~~Subparagraph (a)(3)(A) or (a)(3)(B) of this Section, or possess a chemistry or related degree with~~  
16 ~~two years of related environmental experience, or hold any Biological Water Pollution Control~~  
17 ~~System Operator's Certification as defined by 15A NCAC 08G.~~

18 (6) ~~Application: Each Field Parameter Laboratory shall submit an application in duplicate.~~

19 (7) ~~Performance Evaluations. Each Field Parameter Laboratory must participate in an annual quality~~  
20 ~~assurance study by analyzing performance evaluation samples obtained from an accredited vendor~~  
21 ~~as unknowns. If performance evaluations are not available for a parameter, certification for that~~  
22 ~~parameter may be based on the proper use of the approved procedure as determined by an announced~~  
23 ~~or unannounced on-site inspection.~~

24 (8) ~~Decertification and Civil Penalties. A laboratory facility can be decertified for infractions as~~  
25 ~~outlined in Rule .0807 of this Section.~~

26 (9) ~~Recertification. A laboratory facility can be recertified in accordance with Rule .0808 of this~~  
27 ~~Section.~~

28 (1) All analytical records, including original observations and information necessary to facilitate  
29 historical reconstruction of the calculated results, shall be maintained for five years. All analytical  
30 data and records pertinent to each certified analysis shall be accurate and filed in an orderly manner  
31 so as to be readily available for inspection upon request. All analytical records shall be legible and  
32 safeguarded against unauthorized amendment, obliteration, erasures, overwriting and corruption.  
33 Records which are stored only on electronic media shall be securely maintained throughout the five  
34 year retention period and supported in the laboratory by all hardware and software necessary for  
35 immediate data retrieval and review. All documentation errors shall be corrected by drawing a single  
36 line through the error so that the original entry remains legible. Entries shall not be obliterated by  
37 erasures or markings. Wite-Out®, correction tape or similar products designed to obliterate

1 documentation are not to be used. Write the correction adjacent to the error. The correction shall be  
2 initialed by the responsible individual and the date of change documented. All manual data and log  
3 entries shall be written in indelible ink. Pencil entries are not acceptable.

4 (2) All laboratories shall use printable laboratory benchesheets. Certified Data shall be traceable to the  
5 associated sample analyses and shall consist of:

6 (i) the method or Standard Operating Procedure;

7 (ii) the laboratory identification;

8 (iii) the instrument identification;

9 (iv) the sample collector;

10 (v) the signature or initials of the analyst;

11 (vi) the date and time of sample collection;

12 (vii) the date of sample analyses;

13 (viii) the time of sample analyses (when required to document a required holding time or when  
14 time critical steps are imposed by the method, a federal regulation or this Rule);

15 (ix) sample identification;

16 (x) sample preparation, where applicable;

17 (xi) the volume of sample analyzed, where applicable;

18 (xii) the proper units of measure;

19 (xiii) the dilution factor, where applicable;

20 (xiv) all manual calculations;

21 (xv) the quality control assessments;

22 (xvi) the value from the measurement system;

23 (xvii) the final value to be reported; and

24 (xviii) any other data needed to reconstruct the final calculated result.

25 Each item shall be recorded each time samples are analyzed. Analyses shall conform to  
26 methodologies found in Rule .0805 (a) (1) of this Section.

27 (3) A record of instrument calibration or calibration verification shall be documented, filed in an orderly  
28 manner, and available for inspection upon request.

29 (4) Laboratory Procedures. Laboratory procedures shall comply with Rule .0805 (a) (1) of this Section.

30 A copy of each analytical method or Approved Procedure and Standard Operating Procedure shall  
31 be available to each analyst and available for review upon request by the State Laboratory. Standard  
32 Operating Procedure documentation shall indicate the effective date of the document and shall be  
33 reviewed every two years and updated if changes in procedures are made. Each laboratory shall  
34 have a formal process to track and document review dates and any revisions made in all of their  
35 Standard Operating Procedure documents. Supporting Records shall be maintained as evidence that  
36 these practices are implemented.

- 1           (5) Each laboratory shall develop and implement a documented training program that includes the  
2           following:
- 3           (i) that staff have the education, training, experience, or demonstrated skills, needed to  
4           generate quality control results within method-specified limits or that meet the  
5           requirements of these Rules;
- 6           (ii) that staff have read the laboratory Quality Assurance Manual or applicable Standard  
7           Operating Procedures;
- 8           (iii) that staff have obtained acceptable results on Proficiency Testing samples pursuant to 15A  
9           NCAC 2H .0803 (1) or other demonstrations of proficiency.
- 10          (6) Each facility shall have glassware, chemicals, supplies, properly maintained equipment, and a  
11          source of water that meets the criteria of the approved methodologies. Samples shall be analyzed in  
12          such a manner that contamination or error will not be introduced.
- 13          (7) Chemical containers shall be dated when received and when opened. Reagent containers shall be  
14          dated, identified, and initialed when prepared. Chemicals and reagents exceeding the expiration date  
15          shall not be used. Chemicals and reagents shall be assigned expiration dates by the laboratory if not  
16          given by the manufacturer. If the laboratory is unable to determine an expiration date for a particular  
17          chemical or reagent, a one-year time period from the date of receipt shall be the expiration date  
18          unless degradation is observed prior to this date. The laboratory shall have a documented system of  
19          traceability for all chemicals, reagents, standards, and consumables.
- 20          (8) If quality control results fall outside established limits or indicate an analytical problem, the  
21          laboratory shall identify the root cause of the failure. The problem shall be resolved through  
22          corrective action, the corrective action process documented and any samples involved shall be  
23          reanalyzed, if possible. If the sample cannot be reanalyzed, or if the quality control results continue  
24          to fall outside established limits or indicate an analytical problem, the results shall be qualified as  
25          such.
- 26          (9) All temperature-measuring devices shall have accuracy appropriate for its intended use. All  
27          temperature-measuring devices shall be properly used, stored, and maintained.
- 28                (A) Reference Temperature-Measuring Devices shall meet National Institute of Standards and  
29                Technology (NIST) specifications for accuracy and shall be recalibrated in accordance with  
30                the manufacturer's recalibration date. If no recalibration date is given, the Reference  
31                Temperature-Measuring Device shall be recalibrated every five years.
- 32                (B) Excluding digital, incubator, and infrared temperature-measuring devices, all non-  
33                Reference Temperature-Measuring Devices shall be verified every twelve months against  
34                a Reference Temperature-Measuring Device and their accuracy shall be corrected.
- 35                (C) Digital temperature-measuring devices and temperature-measuring devices used in  
36                incubators shall be verified at every three months against a Reference Temperature-  
37                Measuring Device and their accuracy shall be corrected.

- 1                   (D) Infrared temperature-measuring devices shall be verified every three months at three  
2                   different temperatures over the temperature range of use against a Reference Temperature-  
3                   Measuring Device and their accuracy shall be corrected. Each day of use, infrared  
4                   temperature-measuring devices shall be verified against a non-Reference Temperature-  
5                   Measuring Device that meets NIST specifications for accuracy. If the infrared temperature-  
6                   measuring device does not agree within 0.5 degrees Celsius during the daily verification,  
7                   corrective action must be taken.
- 8                   (10) Mechanical volumetric liquid-dispensing devices (e.g., fixed and adjustable auto-pipettors and  
9                   bottle-top dispensers) shall be calibrated at least once every twelve months.
- 10                  (11) Supervisors of laboratories certified only for Field Parameters shall:
- 11                  (A) meet the requirements of Subparagraph (a) (3) (A) or (a) (3) (B) of this Section;  
12                  (B) possess a chemistry or related degree with two years of related environmental experience  
13                  or an equivalent combination of education and work experience; or  
14                  (C) hold any Water Pollution Control System Operator's Certification as defined by 15A  
15                  NCAC 08G, et seq.
- 16                  Supervisors shall provide personal and direct supervision of the technical personnel and be held  
17                  responsible for the proper performance and reporting of all analyses governed by these Rules. If the  
18                  supervisor is to be absent, the supervisor shall arrange for a substitute capable of insuring the proper  
19                  performance of all laboratory procedures; however, the substitute supervisor shall not be in charge  
20                  for more than twelve consecutive weeks.
- 21                  (12) A certified Field Laboratory shall be subject to inspections during the Certification period and shall  
22                  make all relevant records available for inspection.
- 23                  (13) A certified Field Laboratory shall supply copies of all relevant records for any investigation upon  
24                  written request by the State Laboratory.
- 25                  (14) A certified Field Laboratory shall pay all applicable fees in accordance with Rule .0806 of this  
26                  Section.
- 27                  (15) Application. Each Field Laboratory requesting initial Certification shall submit an application to the  
28                  State Laboratory.
- 29                  (16) Proficiency Testing. Each certified Field Laboratory shall be in accordance with Rule .0805 (a) (2)  
30                  of this Section.
- 31                  (17) Data Reporting. Each certified Field Laboratory shall be in accordance with Rule .0805 (e) of this  
32                  Section.
- 33                  (18) Issuance of Certification. A Field Laboratory shall be issued Certification in accordance with Rule  
34                  .0805 (b) of this Section.
- 35                  (19) Maintenance of Certification. A certified Field Laboratory shall submit written notice of any  
36                  material changes in the laboratory supervisor, location, ownership, address, name and telephone  
37                  number within 30 days of such changes.

1           (20) Certification Renewals. Certification renewals of certified Field Laboratories shall be issued in  
2           accordance with Rule .0805 (d) of this Section.

3           (21) Discontinuation of Certification. A certified Field Laboratory may discontinue Certification in  
4           accordance with Rule .0805 (f) of this Section.

5           (22) Decertification. A certified Field Laboratory may be decertified and must meet all Decertification  
6           requirements for infractions in accordance with Rule .0807 of this Section.

7           (23) Civil Penalties. Civil Penalties may be assessed against a certified Field Laboratory which violates  
8           or fails to act in accordance with any of the terms, conditions, or requirements of the Rule .0807 of  
9           this Section or of the State Laboratory.

10          (24) Recertification. A decertified Field Laboratory may be recertified in accordance with Rule .0808 of  
11          this Section.

12  
13    *History Note:    Authority G.S. 143-215.3(a)(1); ~~143-215.3(a)(10)~~143-215.3(a)(10); 143-215.6A*  
14                    *Eff. February 1, 1976;*  
15                    *Amended Eff. July 1, 1988; July 1, 1985; December 1, 1984; November 1, 1978;*  
16                    *RRC Objection Eff. October 15, 1992 due to lack of statutory authority;*  
17                    *Amended Eff. December 21, 1992;*  
18                    *RRC Objection Removed Eff. December 16, 1993;*  
19                    *Temporary Amendment Eff. October 1, 2001;*  
20                    *Amended Eff. August 1, 2002.*  
21



1 **15A NCAC 02H .0806 is proposed for amendment as follows:**

2  
3 **15A NCAC 02H .0806 FEES ASSOCIATED WITH CERTIFICATION PROGRAM**

4 (a) An applicant for laboratory ~~certification~~Certification, excluding those laboratories seeking only Field Parameter  
5 Certification—~~only~~, ~~must~~shall submit to the Department of ~~Environment and Natural Resources,~~  
6 ~~Laboratory~~Environmental Quality, Division of Water Resources, Water Sciences Section, a non-refundable fee of  
7 three hundred dollars (\$300.00) ~~for the evaluation and processing of~~with each application.

8 (b) Municipal, Industrial, and Other ~~laboratories~~Laboratories ~~must~~shall pay an annual fee of ~~fifty dollars~~  
9 ~~(\$50.00)~~eighty-five dollars (\$85.00) for each ~~inorganic parameter plus one hundred dollars (\$100.00) for each organic~~  
10 ~~parameter and metals analyte;~~parameter; however, the minimum fee ~~will~~shall be one thousand ~~three~~seven hundred  
11 fifty dollars ~~(\$1,350.00)~~(\$1750.00) per year. Municipal Laboratories may cost-share among Municipal Laboratories  
12 or charge a cost recovery fee or surcharge to operate their Pretreatment Program.

13 (c) Commercial ~~laboratories~~Laboratories ~~must~~shall pay an annual fee of ~~fifty dollars (\$50.00)~~eighty-five dollars  
14 (\$85.00) for each ~~inorganic parameter plus one hundred dollars (\$100.00) for each organic parameter and metals~~  
15 ~~analyte~~; however, the minimum fee will be ~~two~~three thousand ~~seven~~five hundred dollars ~~(\$2,700.00)~~(\$3500.00) per  
16 year.

17 (d) Prior to receiving initial ~~certification~~Certification, a Field Laboratory shall pay the required fee as specified in  
18 Paragraph (k) or (l) of this Rule and all other laboratories shall~~laboratory must~~ pay the required fee as specified in  
19 Paragraph (b) or (c) of this Rule. ~~Initial certification~~Excluding Field Laboratories, Certification fee will~~shall~~ be  
20 prorated on a ~~semi-annual~~ quarterly basis. ~~basis to make all certification~~All Certification renewals shall be due on the  
21 first day of January.

22 (e) Once certified, ~~a~~Field Laboratories shall pay a fifty dollar (\$50.00) administrative fee for each Parameter Method  
23 added to their Certified Parameters Listing, and all other laboratories~~laboratory must~~shall pay the full annual parameter  
24 fee for each ~~parameter~~Parameter Method added to their ~~certificate~~Certified Parameters Listing.

25 (f) A laboratory decertified for all parameters ~~must~~shall pay initial ~~certification~~Certification fees prior to  
26 ~~recertification~~Recertification.

27 (g) A laboratory decertified for one or more ~~parameters~~Parameter Methods ~~must~~shall pay a fee of two hundred dollars  
28 (\$200.00) for each ~~parameters~~Parameter Method for which it was decertified prior to ~~recertification~~Recertification.

29 (h) Out-of-state laboratories shall reimburse the ~~state~~State for actual travel and subsistence costs incurred by laboratory  
30 certification staff in ~~certification~~Certification and maintenance of ~~certification~~Certification including travel to provide  
31 technical assistance or complaint investigations. Out-of-state laboratories shall also be assessed for expenses for an  
32 on-site inspection based on the hourly rate of the laboratory certification staff, rounded to the nearest hour and  
33 inclusive of preparation time, travel time, and inspection time.

34 (i) Annual ~~certification~~Certification fees ~~are~~shall be due 60 days after receipt of invoice.

35 (j) A fifty dollar (\$50.00) late payment fee shall be paid by Field Laboratories when annual Certification fees have  
36 not been paid by the date due. AFor all other laboratories, a two hundred fifty dollar (\$250.00) late payment fee  
37 must~~shall~~ be paid when annual ~~certification~~Certification fees are not paid by the date due.

1 (k) Commercial ~~facilities~~Laboratories analyzing only samples for ~~field parameters~~Field Parameters only mustshall  
2 pay an annual fee of ~~two~~three hundred dollars (~~\$200.00~~)(\$300.00) per year.

3 (l) ~~Municipal and Industrial facilities~~Municipal, Industrial, and Other Laboratories analyzing only samples for ~~field~~  
4 ~~parameters~~Field Parameters only mustshall pay an annual fee of one hundred fifty dollars (~~\$100.00~~)(\$150.00) per  
5 year.

6 (m) A laboratory that voluntarily discontinues Certification shall pay all applicable Certification fees as specified in  
7 Paragraphs .0806 (a) (b) (c) (d) (k) and (l) of this Rule prior to regaining Certification.

8

9 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.3(a)(10);*

10 *Eff. February 1, 1976;*

11 *Amended Eff. November 2, 1992; December 1, 1984;*

12 *Temporary Amendment Eff. October 1, 2001;*

13 *Amended Eff. August 1, 2002.*

14

1 15A NCAC 02H .0807 is proposed for amendment as follows:

2  
3 15A NCAC 02H .0807 DECERTIFICATION AND CIVIL PENALTIES

4 (a) Laboratory Decertification. ~~A laboratory may be decertified, for any or all parameters, for up to one year for any~~  
5 ~~of the following infractions:~~The following infractions may result in a laboratory being decertified pursuant to  
6 Paragraph (d) of this Section for any or all parameters for up to one year:

- 7 (1) Failing to maintain the facilities, ~~or~~ records, ~~or~~ personnel, ~~or~~ equipment, or quality control program  
8 as set forth in the application, and these Rules;~~or~~
- 9 (2) Submitting inaccurate data or other information subject to these rules;~~or~~
- 10 (3) Failing to pay required fees by the date due;~~or~~
- 11 (4) Failing to discontinue supplying data for clients or programs described in Rule .0802 of this Section  
12 during periods when a ~~decertification~~Decertification is in effect;~~or~~
- 13 (5) Failing to submit a ~~split~~Split sample to the State Laboratory as requested;~~or~~
- 14 (6) Failing to use approved methods of analysis;~~or~~
- 15 (7) Failing to report a change of laboratory supervisor ~~or equipment changes~~ within 30 days;~~of such~~  
16 ~~changes; or~~
- 17 (8) Failing to report an analysis of required annual ~~performance evaluation~~Proficiency Testing samples  
18 submitted by ~~an EPA State Laboratory-approved~~ approved vendorVendor within the specified time  
19 limit;~~or~~
- 20 (9) Failing to allow an inspection by an authorized representative of the State Laboratory;~~or~~
- 21 (10) Failing to supply all records and analytical data requested by the State Laboratory;~~or~~
- 22 (11) Failing to submit a written notification amendment to the certification application within 30 days of  
23 applicable changes pursuant to 15A NCAC 2H .0805(a)(6) and (7) and 15A NCAC 2H .0805(g)(19);  
24 ~~or~~
- 25 (12) Failing to meet ~~required requirements for~~ sample holding times and preservation;~~or~~
- 26 (13) Failing to respond to requests for information by the date due;~~or~~
- 27 (14) Failing to comply with any other terms, conditions, or requirements of this Section or of ~~a~~ laboratory  
28 ~~certification~~Certification;
- 29 (15) Altering or modifying the laboratory's certificate or Certified Parameters Listing;
- 30 (16) Sharing or comparing Proficiency Testing sample results with other laboratories prior to the study  
31 reporting deadline;
- 32 (17) Splitting, sending, or subcontracting a Proficiency Testing sample or a portion of a Proficiency  
33 Testing sample to another laboratory unless the practice represents the routine analysis and reporting  
34 scheme utilized by the laboratories;
- 35 (18) Knowingly receiving and analyzing any Proficiency Testing sample or portion of a Proficiency  
36 Testing sample from another laboratory for which the results of the Proficiency Testing sample are  
37 intended for use by that laboratory for initial or continued Certification.

1           (19) ~~Obtaining or attempting to obtain the assigned value of any Proficiency Testing sample used to~~  
2           ~~satisfy initial or continued Certification requirements prior to the closing date of the study.~~

3           (20) ~~Failing to correct findings in an inspection report.~~

4 (b) Parameter Method Decertification. ~~A laboratory may receive a parameter decertification for failing to:~~The  
5 laboratory may be decertified pursuant to Paragraph (d) of this Section for a Parameter Method for:

6           (1) ~~Obtain acceptable results on two consecutive blind or announced performance evaluation samples~~  
7           ~~submitted by an EPA accredited vendor or the State Laboratory; or~~obtaining two consecutive  
8           ~~Unacceptable Proficiency Testing sample results; or~~

9           (2) ~~Obtain acceptable results on two consecutive blind or announced split samples that have also been~~  
10           ~~analyzed by the State Laboratory.~~obtaining two consecutive unacceptable Split sample results.

11 (c) Falsified Data. A laboratory that submits falsified data or other information may be decertified pursuant to  
12 Paragraph (d) of this Section for all parameters for up to two ~~years,~~years and may be recertified per Rule .0808 of this  
13 Section.

14 (d) Decertification Factors. In determining a period of ~~decertification,~~Decertification, the Director shall recognize  
15 that any harm to the natural resources of the State arising from violations of ~~these~~the Rules in this Section may not be  
16 immediately observed and may be incremental or cumulative with no damage that can be immediately observed or  
17 documented. Decertification for periods up to the maximum ~~may~~shall be based on any ~~and~~one or a combination of  
18 ~~the following factors to be considered:~~factors set forth at G.S. 143B-282.1(b).

19           (1) ~~— The degree and extent of harm, or potential harm, to the natural resources of the State or to the~~  
20           ~~public health, or to private property resulting from the violation;~~

21           (2) ~~— The duration, and gravity of the violation;~~

22           (3) ~~— The effect, or potential effect, on ground or surface water quantity or quality or on air quality;~~

23           (4) ~~— Cost of rectifying any damage;~~

24           (5) ~~— The amount of money saved by noncompliance;~~

25           (6) ~~— As to violations other than submission of falsified data or other information, whether the violation~~  
26           ~~was committed willfully or intentionally;~~

27           (7) ~~— The prior record of the laboratory in complying or failing to comply with any State and~~and/or  
28           ~~Federal laboratory Rules and regulations;~~

29           (8) ~~— The cost to the State of investigation and enforcement procedures;~~

30           (9) ~~— Cooperation of the laboratory in discovering, identifying, or reporting the violation;~~

31           (10) ~~— Measures the laboratory implemented to correct the violation or abate the effect of the violation,~~  
32           ~~including notifying any affected clients;~~

33           (11) ~~— Measures the laboratory implemented to correct the cause of the violation;~~

34           (12) ~~— Any other relevant facts.~~

35 (e) Decertification Requirements.

- 1 (1) A decertified laboratory ~~is not to~~ shall not analyze samples for the decertified ~~parameters~~ Parameter  
2 Method for programs described in Rule .0802 of this Section or for clients reporting to these  
3 programs or other programs requiring Certified Data pursuant to this Section.
- 4 (2) A decertified ~~commercial laboratory~~ Commercial Laboratory ~~must~~ shall supply written notification  
5 of the ~~decertification~~ its Decertification to clients ~~with Division of Water Quality~~ that are required  
6 to report to the Department of Environmental Quality reporting requirements under G.S. 143 Article  
7 21. Within 30 days of Decertification, the decertified laboratory must supply shall provide the State  
8 Laboratory with a list of such ~~clients involved~~ and copies of the notices sent to each.
- 9 (3) A ~~commercial~~ Commercial Laboratory that has received a ~~parameter~~  
10 ~~decertification~~ Parameter Method Decertification ~~may~~ shall make arrangements to supply analysis  
11 through another ~~certified~~ certified laboratory certified by the State Laboratory for the contracted parameters  
12 during any decertification periods. Decertification period. ~~The decertified laboratory must supply~~  
13 ~~the State Laboratory, by written notice, the name of the laboratory to be used.~~ Within 30 days of  
14 Decertification, the decertified laboratory shall supply the State Laboratory with a list of clients  
15 involved, copies of the notices sent to each, and the name and Certification number of the certified  
16 laboratory to be used during the Decertification period.
- 17 (4) A ~~commercial laboratory~~ Commercial Laboratory decertified for all parameters ~~cannot~~ shall not  
18 subcontract samples for analyses to other certified laboratories during the  
19 ~~decertification~~ Decertification period.
- 20 (5) A ~~decertified municipal or industrial laboratory~~ Municipal or Industrial Laboratory that has received  
21 a Parameter Method Decertification ~~must~~ shall have ~~its~~ samples requiring that Parameter Method  
22 analyzed by another certified laboratory certified by the State Laboratory for the contracted  
23 Parameter Method during any decertification Decertification ~~period and supply the State Laboratory,~~  
24 ~~by written notice, the name of the certified laboratory to be used.~~ Within 30 days of Decertification,  
25 the decertified laboratory shall supply the State Laboratory with the name and Certification number  
26 of the certified laboratory to be used during the Decertification period.

27 (f) Civil Penalties. Civil penalties may be assessed against a laboratory which violates or fails to act in accordance  
28 with any of the terms, conditions, or requirements of the Rules in this Section. ~~or of a laboratory certification.~~ A  
29 laboratory is subject to both civil penalties and decertification. In determining the civil penalties assessed, the Director  
30 shall recognize that any harm to the natural resources of the State arising from violations of the Rules in this Section  
31 may not be immediately observed and may be incremental or cumulative with no damage that can be immediately  
32 observed or documents. Civil penalties up to the maximum may be based on any one or a combination of the factors  
33 in Section .0807(d) of this Rule.

34  
35 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.3(a)(10); 143-215.6A;  
36 Eff. February 1, 1976;  
37 Amended Eff. November 2, 1992; December 1, 1984;

1                    *Temporary Amendment Eff. October 1, 2001;*  
2                    *Amended Eff. August 1, 2002.*  
3

1 **15A NCAC 02H .0808 is proposed for amendment as follows:**

2  
3 **15A NCAC 02H .0808 RECERTIFICATION**

4 (a) A laboratory decertified in accordance with Paragraph (a) of Rule .0807 of this Section ~~may~~shall be recertified at  
5 the end of the ~~Decertification~~decertification period imposed by the Division pursuant to 15A NCAC 02H .0807 (a)  
6 and (d) by showing to the satisfaction of the State Laboratory that it has corrected the ~~deficiency(ies)~~deficiencies for  
7 which it was decertified.

8 ~~(b) A laboratory decertified for a parameter due to unacceptable results on two consecutive performance evaluation~~  
9 ~~samples submitted by an EPA accredited vendor, or on two consecutive split samples may be recertified after 60 days~~  
10 ~~by reporting acceptable results on two consecutive performance evaluation samples submitted by an EPA accredited~~  
11 ~~vendor. Recertification samples may be requested from an EPA accredited vendor at any time, however, recertification~~  
12 ~~must be requested in writing at the end of the 60 day period immediately following the date of decertification.~~

13 ~~(c) A laboratory decertified for submitting falsified data or other information may be recertified at the end of the~~  
14 ~~decertification period by demonstrating compliance with all requirements of this Section.~~

15 (b) A laboratory decertified for a Parameter Method due to two consecutive Unacceptable Proficiency Testing Results  
16 or on two consecutive Split samples shall be recertified at the end of the 30-day period by completing all of the  
17 following:

18 (1) Report acceptable results on two consecutive Proficiency Testing samples submitted by a State  
19 Laboratory-approved Vendor or report acceptable results on two consecutive samples split with the State  
20 Laboratory. Recertification samples may be requested from a State Laboratory approved Vendor at any time;

21 (2) Recertification shall be requested in writing following Decertification;

22 (3) The decertified laboratory shall supply the State Laboratory with the name, certification number, and  
23 address of the certified subcontract laboratory and a list of impacted clients and their contact information;

24 (4) The decertified laboratory shall supply the State Laboratory with a report of the investigation of the root  
25 cause and corrective action taken;

26 (5) The laboratory shall pay the required fee as specified in Rule .0806 (f) or (g) of this Section; and

27 (6) The laboratory shall have met all the Decertification requirements in accordance with Paragraph .0807  
28 (e) of this Section.

29 (c) After two years after Decertification, a Parameter Method Recertification shall be treated as an initial Certification  
30 in accordance with Rule .0805 of this Section.

31 (d) A laboratory decertified for submitting Falsified Data or Information shall be recertified at the end of the  
32 Decertification period imposed by the Division pursuant to 15A NCAC 02H .0807 (c) and (d) by demonstrating  
33 compliance with all requirements of this Section.

34  
35 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.3(a)(10);*

36 *Eff. February 1, 1976;*

37 *Amended Eff. November 2, 1992; December 1, 1984;*

1                    *Temporary Amendment Eff. October 1, 2001;*  
2                    *Amended Eff. August 1, 2002.*  
3



1 **15A NCAC 02H .0809 is proposed for amendments follows:**

2

3 **15A NCAC 02H .0809 RECIPROACITY**

4 (a) Laboratories certified under ~~other state~~ certification programs of other states or other certification or accreditation  
5 bodies shall~~may~~ be given ~~reciprocity~~reciprocal certification~~Certification~~ ~~whereif~~ such programs or certification or  
6 accreditation bodies meet the requirements of this Section. In requesting reciprocity ~~certification~~Certification,  
7 laboratories shall include with the application required by Rule .0805(a) of this Section a copy of their certification, a  
8 copy of the last audit report from the certifying body, the laboratory's response to the audit report, the laboratory's  
9 scope of accreditation, and ~~Regulation~~applicable regulations from the certifying agency.

10 (b) Laboratories certified by reciprocity shall pay the fees required by Rule .0806 of this Section.

11 (c) ~~Any time that a laboratory has its certification with the reciprocal program discontinued for any reason, If a~~  
12 laboratory's certification by another state's program or another certification or accreditation body is discontinued, the  
13 State Laboratory shall be notified and Certification~~certification~~ under this Section shall be terminated at the same time.

14

15 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.3(a)(10);*

16 *Eff. February 1, 1976;*

17 *Amended Eff. November 2, 1992; December 1, 1984.*

18

1 **15A NCAC 02H .0810 is proposed for repeal as follows:**

2  
3 ~~**15A NCAC 02H .0810 — ADMINISTRATION**~~

4 ~~(a) The Director of the Division of Water Quality, Department of Environment and Natural Resources or his delegate,~~  
5 ~~is authorized to issue certification, to reject applications for certification, to renew certification, to issue recertification,~~  
6 ~~to issue decertification, and to issue reciprocity certification.~~

7 ~~(b) Appeals. In any case where the Director of the Division of Water Quality, Department of Environment and~~  
8 ~~Natural Resources or his delegate denies certification, or decertifies a laboratory, the laboratory may appeal to the~~  
9 ~~N.C. Office of Administrative Hearings in accordance with Chapter 150B of the General Statutes.~~

10 ~~(c) The State Laboratory will maintain a current list of certified commercial laboratories.~~

11 ~~(d) Implementation of the October 1, 2001 changes to this Section.~~

12 ~~(1) All requirements of the Rules in this Section are effective on the effective date of the amendments.~~

13 ~~(2) Requests for the new parameters may be made by submitting a properly completed amendment~~  
14 ~~form.~~

15 ~~(3) Laboratories subject to the amended requirements of these Rules must submit a completed~~  
16 ~~application, or amendment form, within three months of the effective date of the amendments.~~  
17 ~~Laboratories submitting an application or amendment form for any of the newly certifiable~~  
18 ~~parameters may analyze samples for these new parameters until the State Laboratory has issued or~~  
19 ~~denied certification. Fees for parameter additions requested during the initial three month period~~  
20 ~~will be calculated as initial certification fees.~~

21 ~~(4) Laboratory facilities, not currently certified, that are performing analyses for Field Parameters only~~  
22 ~~must submit an application within three months of the effective date of the amendments. After~~  
23 ~~submitting an application, these laboratories may continue to analyze samples until the State~~  
24 ~~Laboratory has issued or denied certification.~~

25  
26 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.3(a)(10); 150B-23;*

27 *Eff. February 1, 1976;*

28 *Amended Eff. November 2, 1992; July 1, 1988; December 1, 1984; November 1, 1978;*

29 *Temporary Amendment Eff. October 1, 2001;*

30 *Amended Eff. August 1, 2002.*

31