

XX

Mr. David Lancaster
Facilities Director
East Carolina University, School of Medicine
600 Moye Blvd.
Greenville, North Carolina 28858-4353

Dear Mr. Lancaster:

SUBJECT: Air Quality Permit No. 04321T12
Facility ID: 07/74/00242
East Carolina University, School of Medicine
Greenville, North Carolina
Pitt County
Fee Class: Title V

In accordance with your completed Air Quality Permit Application for an initial Title V permit received January 4, 2000, we are forwarding herewith Air Quality Permit No. 04321T12 to East Carolina University, School of Medicine, NC 43 and SR 1267, Greenville, North Carolina authorizing the operation, as outlined in Part I, "Air Quality Federal Title V And State Operation Permit," and the construction, as outlined in Part II, "Air Quality State Construction Permit," of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 2Q .0503 have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3 of Part I.

As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with **both** the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh,

North Carolina 27699-6714 and the Division of

Mr. David Lancaster

Enter XX or Calendar Date

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Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding.

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in **writing** to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction. Failure to do so is a violation of GS 143-215.108 and may subject the Permittee to civil or criminal penalties as described in GS 143-215.114A and 143-215.114B.

This Air Quality Permit shall be effective from **XX or Permit Issuance Date** until **(Enter XX or Permit Expiration Date)**, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Ms. Jenny Sheppard at (919) 715-6259.

Sincerely yours,

Laura S. Butler, P.E.
Chief

Enclosure

c: Gregg Worley, EPA Region 4
Washington Regional Office
Central Files

State of North Carolina,
Department of Environment,
and Natural Resources



Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
04321T12	04321R11	XXXX	XXXX

Until such time as this permit expires or is modified or revoked, the below named Permittee is authorized to operate, as outlined in Part I, "Air Quality Federal Title V And State Operation Permit," and to construct, as outlined in Part II, "Air Quality State Construction Permit," the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 2D and 2Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 2Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee: **East Carolina University, School of
Medicine**

Facility ID: **07/74/00242**

Facility Site Location: **NC 43 and SR 1267**
City, County, State, Zip: **Greenville, Pitt County, North Carolina**

Mailing Address: **600 Moye Blvd.**
City, State, Zip: **Greenville, North Carolina 28858**

Application Number: **7400242.00A**
Complete Application Date: **September 18, 2000**
Renewal Application Due Date: **Ren Application Due Date (9 mths prior to expir. date)**

Primary SIC Code: **8221**
Division of Air Quality, **Washington Regional Office**
Regional Office Address: **943 Washington Square Mall**
Washington, North Carolina 27889

Permit issued this the **XX** day of **XXXXXX**, **XXXX (Engineer Note: enter/type in date!)**

Laura S. Butler, P.E., Chief, Air Permits Section
By Authority of the Environmental Management Commission

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PART I

AIR QUALITY FEDERAL TITLE V AND STATE OPERATION PERMIT

The Division of Air Quality (DAQ), the United States Environmental Protection Agency (EPA), and citizens as defined under the Federal Clean Air Act have the authority to enforce the terms, conditions, and limitations contained in Part I of this permit unless otherwise specified.

Under Title 15A NCAC 2Q, the operation of emission source(s) and associated air pollution control device(s) and appurtenances listed in Part I of this permit is based on plans, specifications, operating parameters, and other information as submitted in the Air Quality Permit Application.

SECTION 1- PERMITTED EMISSION SOURCES AND ASSOCIATED AIR POLLUTION CONTROL DEVICES AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-1a NSPS	1,000 lbs./hr No. 2 fuel oil/natural gas/methane-fired, medical/housekeeping waste/low-level radioactive waste incinerator (8 million Btu per hour w/ two primary chamber burners and one secondary chamber burner) with a heat recovery system (stack EP-1a)	CD-1, CD-2	5 gallons per minute minimum fresh injection rate, 14.6 gallons per minute minimum total scrubber liquor flow rate wet scrubber (CD-1) with a sodium hydroxide scrubbing medium and an OPTIONAL carbon bed adsorber (CD-2)
2W	20.9 million Btu per hour maximum heat input, No. 2 fuel oil / natural gas-fired boiler	NA	NA
ES-1b NSPS	16.7 million Btu per hour maximum heat input, No. 2 fuel oil / natural gas-fired boiler	NA	NA
B-3 NSPS	40 million Btu per hour maximum heat input, No. 2 fuel oil / natural gas-fired boiler	NA	NA
G#1 through G#4	350kW, 400 kW, 600 kW, and 1,250 kW No. 2 fuel oil-fired generators	NA	NA

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1- Emission Source(s) and Control Devices(s) Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

- A. 1,000 lbs./hour No. 2 fuel oil/natural gas/ methane-fired, medical/housekeeping waste/low-level radioactive waste incinerator (NSPS, Subpart Ec, ID No. ES1a, 8 million Btu per hour w/ two primary chamber burners and one secondary chamber burner) with a heat recovery system (stack EP-1a), a 5 gallons per minute minimum fresh injection rate, 14.6 gallons per minute minimum total scrubber liquor flow rate wet scrubber (CD-1) with a sodium hydroxide scrubbing medium and an OPTIONAL carbon bed adsorber (CD-2)**

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
toxic air pollutants	State-enforceable only – See Section 2.2A.1	15A NCAC 2Q .0711
toxic air pollutants	State-enforceable only – See Section 2.2A.2	15A NCAC 2D .1100
odorous emissions	State-enforceable only – See Section 2.2A.3	15A NCAC 2D .1806
PM, SO ₂ , NO _x CO, HAPs	Limits for Hospital, Medical, and Infectious Waste Incinerators	40 CFR 60 Subpart Ec 15A NCAC 2D .1206 <i>(State-enforceable only until approval into SIP by EPA)</i>

1. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS: 40 CFR 60 SUBPART Ec “STANDARDS OF PERFORMANCE FOR HOSPITAL/MEDICAL/INFECTIOUS WASTE INCINERATORS FOR WHICH CONSTRUCTION COMMENCED AFTER JUNE 20, 1996.

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart Ec, including Subpart A "General Provisions." [15A NCAC 2D .0524]

Operator Training and Qualification Requirements/ Operator Training and Certification [40 CFR 60.53c and 15A NCAC 2D .1206(h)]

- b. The Permittee shall not allow the HMIWI to operate at any time unless a fully trained and qualified HMIWI operator is accessible, either at the facility or available within one hour. The trained and qualified HMIWI operator may operate the HMIWI directly or be the direct supervisor of one or more HMIWI operators. Operator training shall be obtained by completing the requirements of 40 CFR 60.53c(c) through (g).

Siting Requirements/ Operator Training and Certification [40 CFR 60.54c]

- c. The Permittee shall prepare an analysis of the impacts of the affected facility. The analysis shall consider air pollution control alternatives that minimize, on a site-specific basis, to the maximum extent practicable, potential risks to public health or environment. In considering such alternatives, the analysis may consider costs, energy impacts, non-air environmental impacts, or any other factors related to the practicability of the alternatives.

Emission Limitations [15A NCAC 2D .0524 and 40 CFR 60, Subpart Ec, Table 1]

- d. On and after the date on which the initial performance test is completed, the emission limits in Table 1 apply:

Table 1. Subpart Ec.--Emission Limits for Large Hospital/Medical/Infectious Waste Incinerator (HMIWI)

POLLUTANT	EMISSION LIMITS	UNITS (7 percent oxygen, dry basis)
Particulate matter	34 (0.015)	Milligrams per dry standard cubic meter (grains per dry standard cubic foot)
Carbon Monoxide	40	Parts per million by volume
Dioxins/furans	25 (11) or 0.6 (0.26)	Nanograms per dry standard cubic meter total dioxins/furans (grains per dry standard cubic foot) or nanograms per dry standard cubic meter total dioxins/furans TEQ (grains per billion dry standard cubic feet).
Hydrogen chloride	15 or 99%	Parts per million or percent reduction
Sulfur dioxide	55	Parts per million by volume
Nitrogen oxides	250	Parts per million by volume
Lead	0.07 (0.03) or 98%	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction
Cadmium	0.04 (0.02) or 90%	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction
Mercury	0.55 (0.24) or 85%	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction

- e. **Visible Emissions Limit** – No owner or operator of an affected facility shall cause to be discharged into the atmosphere from the stack of that affected facility any gases that exhibit greater than 10 percent opacity. (6-minute block average).
- f. **Fugitive Emissions Limit**- No owner or operator of an affected facility utilizing a large HMIWI shall cause to be discharged into the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (i.e., 9 minutes per 3-hour

period), as determined by EPA Reference Method 22, except as provided below:

- i. The emissions limit above does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems.
- ii. The provisions specified above do not apply during maintenance and repair of ash conveying systems. Maintenance and/or repair shall not exceed 10 operating days per calendar quarter unless the owner or operator obtains written approval from the State agency establishing a date whereby all necessary maintenance and repairs of ash conveying systems shall be completed.

Testing Requirements [15A NCAC 2Q .0508(f)]

g. NSPS Testing Requirements - [40 CFR 60.56c] – The following tests shall be conducted:

POLLUTANT	TEST METHOD	FREQUENCY
Particulate	5 or 29	Every 3 years
Visible Emissions	9	Annually
CO ¹	10 or 10B	Every 3 years and ongoing CEMs requirement
HCl	26	Every 3 years
Fugitive ash	22	Annually
O ₂ monitor		CEMs Requirement

- h. **Annual Testing Requirement** – No more than 12 months following the previous performance test, the owner/operator shall conduct a test for **opacity and fugitive emissions** using the applicable procedures and test methods to meet the limits above.
- i. **Testing Requirement – Every Three Years** - The Permittee shall determine compliance with the PM, CO, and HCl emissions limits by conducting performance tests using the applicable procedures and test methods listed in paragraph (d) of this section. As a minimum, a performance test for PM, CO, and HCl shall be conducted every third year (no more than 36 months) following the previous performance test. If a performance test conducted every third year indicates compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for an additional 2 years. If any performance test indicates noncompliance with the respective emission limit, a performance test for that pollutant shall be conducted annually until all annual performance tests over a 3-year period indicate compliance with the emission limit. The use of the bypass stack during a performance test shall invalidate the performance test.

Monitoring [15A NCAC 2Q .0508(f)]

- j. A continuous emissions monitor for CO and O₂ emissions shall be installed, calibrated, maintained, tested, and operated in accordance with 40 CFR Part 60 Appendix B "Performance Specifications" and Appendix F "Quality Assurance Procedures."
- k. Facilities using CEMs to demonstrate compliance with the emission limits under 40 CFR 60.52c shall:
 - i. Determine compliance with the appropriate emission limits using a 12-hour rolling average, calculated each hour as the average of the previous 12 operating hours (not including startup, shutdown, or malfunction).
 - ii. Operate all CEMs in accordance with the applicable procedures under appendices B and F of

Subpart Ec.

1. Wet Scrubber Requirements [40 CFR 60.56c(f)] – The owner or operator of an affected facility equipped with a wet scrubber shall:
 - i. Following the date on which the initial performance tests is completed or required to be completed under 40 CFR 60.8, whichever date comes first, ensure that the affected facility does not operate above any of the applicable maximum operating parameters or below any applicable operating parameters listed in Table 2 and measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours) at all times except during periods of startup, shutdown, and malfunction. Operating parameters do not apply during performance tests. Operation above the established maximum or below the established minimum operating parameters shall constitute a violation of the established operating parameters.

Table 2-Operating Parameters to be Monitored and Minimum Measurement and Recording Frequencies

WET SCRUBBER - Maximum/Minimum Operating Parameters:			
Operating parameters to be monitored	Monitoring frequency	Recording Frequency	Operating Parameter Limits
Maximum charge rate	Continuous	1 x hour	1000 lbs./hr.
Minimum secondary chamber temperature	Continuous	1 x minute	1796.4 (Deg. F)
Minimum amperage to wet scrubber	Continuous	1 x minute	42.4 (amps)
Minimum scrubber liquor flow rate	Continuous	1 x minute	14.6 (gpm)
Minimum scrubber liquor pH	Continuous	1 x minute	7.3 (pH)
CARBON BED – Minimum Operating Parameter (when in operation)			
Minimum outlet temperature	Continuous	1 x minute	110 (Deg. F)

- ii. To ensure that optimum control efficiency is maintained by the scrubber monthly inspections and maintenance will be performed, as recommended by the manufacturer. If no manufacturer’s recommendations are available, as a minimum, the inspections will include checking the spray nozzles for clogging or corrosion and cleaning and calibrating the instruments.
- iii. Under 40 CFR 60.57c, the owner or operator of an affected facility shall install, calibrate (to manufacturer’s specifications), maintain, and operate devices (or establish methods) for monitoring the applicable maximum and minimum operating parameters at the frequencies indicated in Table 2 of this section at all times except during periods of startup and shutdown.
- iv. The owner or operator of an affected facility shall obtain monitoring data at all times during HMIWI operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for 75 percent of the

operating hours per day and for 90 percent of the operating days per calendar quarter that the affected facility is combusting hospital waste and/or medical/infectious waste.

- v. The owner or operator of an affected facility shall install, calibrate (to manufacturers' specifications), maintain, and operate a device or method for measuring the use of the bypass stack including date, time, and duration.
- vi. The Permittee shall not charge any waste into the incinerator until the proper operating temperature of 1,796.4⁰ F is attained in the secondary chamber. Gases generated by combustion shall, for a period of not less than one second, be subjected to a minimum temperature of 1,796.4⁰ F.
- vii. Incineration of wastes shall be limited to items and materials that fit within the definition of hospital, medical, and infectious waste contained in 40 CFR 60.51c; low-level radioactive waste, and housekeeping waste.
- viii. Based on the above operating parameters and consistent with 60.56c(f)(1)-(6), 62.14455(d), and 2D .1206(d)(3), the table below identifies operating scenarios that trigger a pollutant emissions limit violation.

<u>POLLUTANT EMISSION LIMIT VIOLATION</u>	<u>OPERATING SCENARIO TRIGGERING VIOLATION</u>
particulate matter	above maximum charge rate (1,000 pounds per hour) and below minimum amperage to scrubber (42.4 amps)
CO	above maximum charge rate (1,000 pounds per hour) and below minimum secondary chamber temperature (1796⁰ F)
dioxin/furan	above maximum charge rate (1,000 pounds per hour) and below minimum secondary chamber temperature (1,796⁰ F) and below minimum scrubber liquor flow rate (14.6 gpm)
HCl	above maximum charge rate (1,000 pounds per hour) and below minimum scrubber liquor pH (7.3 pH)
Mercury	above maximum charge rate (1,000 pounds per hour) and below minimum carbon bed outlet temperature (110⁰ F)
particulate matter, dioxin/furan, HCl, lead, cadmium, mercury	operation of bypass stack (except during start-up, shutdown, or malfunction)

- ix. The owner or operator of an affected facility may conduct a repeat performance test within 30 days of violation of applicable operating parameter(s) to demonstrate that the affected facility is not in violation of the applicable emission limit(s).
- x. The owner or operator of an affected facility may conduct a repeat performance test at any time to establish new values for the operating parameters. The Administrator may request a repeat performance test at any time.
- xi. The EPA Administrator retains the exclusive right to approve the equivalent and alternative

test methods, continuous monitoring procedures, and reporting requirements. Use of the carbon adsorber is optional. If the carbon adsorber is used, the facility shall, as mandated by USEPA Region 4, monitor the carbon bed outlet temperature and maintain it above 110° Fahrenheit, and replace the carbon bed every five years unless testing results indicate earlier replacement is necessary.

Recordkeeping [15A NCAC 2Q .0508(f)]

- m. As per 40 CFR 60.58c, the owner or operator of an affected facility shall maintain the following information (as applicable) for a period of at least 5 years:
 - i. Concentrations of any pollutant listed in 40 CFR 60.52c or measurements of opacity as determined the continuous emission monitoring system (if applicable);
 - ii. Results of fugitive emissions (by EPA Reference Method 22) tests, if applicable;
 - iii. HMIWI charge dates, times, and weights and hourly charge rates;
 - iv. Secondary chamber temperatures recorded during each minute of operation;
 - v. Liquor flow rate to the wet scrubber inlet during each minute of operation, as applicable;
 - vi. Amperage to the wet scrubber during each minute of operation, as applicable;
 - vii. Temperature at the outlet from the carbon bed during each minute of operation, as applicable;
 - viii. pH of the recirculated scrubber liquor measured during each minute of operation;
 - ix. Records indicating use of the bypass stack, including dates, times, and durations.
- n. For affected facilities complying with 40 CFR 60.56c(i) and 60.57c(c), the owner or operator of an affected facility shall maintain all operating parameter collected.
 - i. Identification of calendar days for which data on emission rates or operating parameters have not been obtained, with an identification of the emission rates or operating parameters not measured, reasons for not obtaining the data, and a description of corrective actions taken.
 - ii. Identification of calendar days, times and durations of malfunctions, a description of the malfunction and the corrective action taken.
 - iii. Identification of calendar days for which data on emission rates or operating parameters exceeded the applicable limits, with a description of the exceedances, reasons for such exceedances, and a description of corrective actions taken.
 - iv. The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and/or to establish operating parameters, as applicable.
 - v. All documentation produced as a result of the siting requirements of 40 CFR 60.54c;
 - vi. Records showing the names of HMIWI operators who have completed review of the

information in 40 CFR 60.53c(h) as required by 40 CFR 60.53c(i), including the date of the initial review and all subsequent annual reviews;

- vii. Records showing the names of the HMIWI operators who have completed the operator training requirements, including documentation of training and the dates of the training;
- viii. Records showing the names of the HMIWI operators who have met the criteria for qualification under 40 CFR 60.53c and the dates of their qualification; and
- ix. Records of calibration of any monitoring devices as required under 40 CFR 60.57c(a), (b).

Reporting [15A NCAC 2Q .0508(f)]

- o. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. The annual report shall include the information specified in this section. All reports shall be signed by the facility manager.
 - i. The values for the site-specific operating parameters established pursuant to 40 CFR 60.56c(d) or (i), as applicable.
 - ii. The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter recorded for the calendar year being reported, pursuant to 40 CFR 60.56c(d) or (i), as applicable.
 - iii. The highest maximum operating parameter and the lowest minimum operating parameter, as applicable for each operating parameter recorded pursuant to 40 CFR 60.56c(d) or (i) for the calendar year preceding the year being reported, in order to provide the Administrator with a summary of the performance of the affected facility over a 2-year period.
 - iv. Any information recorded under 2.1.A.1.n.i. through ix. of this Condition for the calendar year being reported.
 - v. Any information recorded under 2.1.A.1.n.i. through ix. of this Condition for the calendar year preceding the year being reported, in order to provide the Administrator with a summary of the performance of the affected facility over a 2-year period.
 - vi. If a performance test was conducted during the reporting period, the results of that test.
 - vii. If no exceedances or malfunctions were reported under 2.1.A.1.n.i. through ix. of this Condition for the calendar year being reported, a statement that no exceedances occurred during the reporting period.
 - viii. Any use of the bypass stack, the duration, reason for malfunction, and corrective action taken.
 - ix. All records specified under 2.1.A.1.m. and 2.1.A.n. of this section shall be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Administrator.

2. 15A NCAC 2D .1206 “HOSPITAL, MEDICAL, AND INFECTIOUS WASTE INCINERATORS”

- a. The following ambient air quality standards, which are an annual average, in milligrams per cubic meter at 77°F (25°C) and 29.92 inches (760 mm) of mercury pressure, and which are increments above background concentrations, shall apply to the facility incinerator:

arsenic and its compounds 2.3×10^{-7}
 beryllium and its compounds 4.1×10^{-6}
 cadmium and its compounds 5.5×10^{-6}
 chromium (VI) and its compounds 8.3×10^{-8}

- b. To ensure compliance with the ambient standards listed above, the following emissions limitations shall apply:

Emission Source(s) ID No(s):	Toxic Air Pollutant(s)	Emission Limit(s)
ES-1a	Arsenic	0.5987 lbs./yr.
ES-1a	Beryllium	0.3927 lbs./yr.
ES-1a	Cadmium	3.3971 lbs./yr.
ES-1a	Chromium VI	0.0081 lbs./yr.

B. One 20.9 million Btu per hour maximum heat input, No. 2 fuel oil/natural gas-fired boiler (ID No. 2W)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	0.41 pound per million Btu heat input	15A NCAC 2D .0503
sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521
toxic air pollutants	State-enforceable only – See Section 2.2B	15A NCAC 2D .1100

1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of natural gas and No. 2 fuel oil, that are discharged from this source into the atmosphere shall not exceed 0.41 pounds per million Btu heat input. [15A NCAC 2D .0503(a)]

Testing [15A NCAC 2D .0501(c)(3)]

- b. If emissions testing is required, the testing shall be performed in accordance General Condition JJ. If the results of this test are above the limit given in Section 2.1 B. 1. a. above, the Permittee shall be deemed in

noncompliance with 15A NCAC 2D .0503.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas and No. 2 fuel oil in this source.

2. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from this boiler (ID No. 2W) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

Testing [15A NCAC 2D .0501(c)(4)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(4) and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 B.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f) and 15A NCAC 2D .0501(c)(4)(A)]

- c. No monitoring/recordkeeping is required for sulfur dioxide emissions from natural gas or No. 2 fuel oil for this source.

3. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from this boiler (ID No. 2W) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

Testing [15A NCAC 2D .0501(c)(8)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 B. 3. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas/No. 2 fuel oil in this source.

C. One NSPS-affected 16.7 million Btu per hour maximum heat input, No. 2 fuel oil/natural gas-fired boiler (ID No. ES-1b) and one NSPS-affected 40 million Btu per hour maximum heat input No. 2 fuel oil/natural gas-fired boiler (ID No. B-3)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	0.35 pound per million Btu heat input	15A NCAC 2D .0503
sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
visible emissions	20 percent opacity	15A NCAC 2D .0521
NA	Recordkeeping only ; monthly fuel records	15A NCAC 2D .0524 (40 CFR 60, Subpart Dc)
toxic air pollutants	State-enforceable only – See Section 2.2B	15A NCAC 2D .1100

1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of natural gas and No. 2 fuel oil that are discharged from this source into the atmosphere shall not exceed 0.41 pounds per million Btu heat input. [15A NCAC 2D .0503(a)]

Testing [15A NCAC 2D .0501(c)(3)]

- b. If emissions testing is required, the testing shall be performed in accordance General Condition JJ. If the results of this test are above the limit given in Section 2.1 C. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas and No. 2 fuel oil in these boilers.

2. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from these boilers (ID Nos. ES-1b and B-3) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

Testing [15A NCAC 2D .0501(c)(4)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(4) and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1.C.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f) and 15A NCAC 2D .0501(c)(4)(A)]

- c. No monitoring/recordkeeping is required for sulfur dioxide emissions from natural gas/No. 2 fuel oil for these boilers.

3. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these boilers (ID Nos. ES-1b and B-3) shall not be more than 20 percent opacity when

averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

Testing [15A NCAC 2D .0501(c)(8)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 C. 3. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas/No. 2 fuel oil in these sources.

4. 15A NCAC 2D .0524: NSPS 40 CFR PART 60 SUBPART Dc

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart Dc, including Subpart A "General Provisions." [15A NCAC 2D .0524]

NSPS Performance Testing [15A NCAC 2D .0524]

- b. As required by 15A NCAC 2D .0524, the following tests shall be conducted:

Affected Facility	Pollutant	Test Method
Natural gas/No. 2 fuel oil-fired boiler (ID No. B-3)	Particulate Matter (Visible emissions)	Method 9

- i. All performance tests shall be conducted in accordance with EPA Reference Methods, contained in 40 CFR 60, Appendix A.
- ii. The EPA Administrator retains the exclusive right to approve equivalent and alternative test methods, continuous monitoring procedures, and reporting requirements.
- iii. Within 60 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after the initial start-up of the affected facility, for each fuel permitted, the Permittee shall conduct the required performance test(s) and submit a written report of the tests to the Regional Supervisor, DAQ.
- iv. The source shall be responsible for ensuring, within the limits of practicality, that the equipment or process being tested is operated at or near its maximum normal production rate or lesser rate if specified by the Director or his delegate.
- v. All associated testing costs are the responsibility of the Permittee.
- vi. To afford the Regional Supervisor, DAQ, the opportunity to have an observer present, the Permittee shall PROVIDE the Regional Office, in WRITING, at least 15 days notice of any required performance test(s).

Emission Limitations [15A NCAC 2D .0524]

- c. The maximum sulfur content of any fuel oil received and burned in these boilers shall not exceed 0.5 percent by weight.

- d. Sulfur dioxide emissions shall be monitored as follows:
 - i. Distillate Oil – Fuel supplier certification shall be used to demonstrate compliance as described under 40 CFR 60.46c(e).

Recordkeeping [15A NCAC 2Q .0508(f)]

- e. In addition to any other recordkeeping required by 40 CFR § 60.48c or recordkeeping requirements of the EPA, the Permittee shall record and maintain records of the amounts of each fuel fired during each month. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

- f. In addition to any other reporting required by 40 CFR § 60.48c or notification requirements to the EPA, the Permittee is required to **NOTIFY** the DAQ in **writing** of the following:
 - i. a summary report, acceptable to the Regional Air Quality Supervisor, of the sulfur content of the distillate or residual fuel oil fired, by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June as follows:
 - (A) Distillate Oil - Fuel supplier certification shall include the following information:
 - (1) the name of the oil supplier;
 - (2) a statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR, 60.41c; and
 - (3) a certified statement signed by the owner or operator of an affected facility that the records of fuel supplier certification represent all of the fuel fired during that semi annual period.
 - ii. the date of construction (40 CFR 60.7) or reconstruction (40 CFR 60.15) of an affected source is commenced, postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
 - iii. the actual date of initial start-up of an affected source, postmarked within 15 days after such date. If the affected source is permitted to burn multiple fuels, then the actual date of start-up, for each fuel, must be submitted and postmarked within 15 days after such date;

D. Four No. 2 fuel oil-fired generators (ID Nos. G#1, G#2, G#3, and G#4, 350 kW, 400 kW, 600 kW, and 1,250 kW, respectively)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
visible emissions	20 percent opacity	15A NCAC 2D .0521
toxic air pollutants	State-enforceable only – See Section 2.2B	15A NCAC 2D .1100

1. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from these generators (ID Nos. G#1, G#2, G#3, and G#4) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

Testing [15A NCAC 2D .0501(c)(4)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(4) and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1.D.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f) and 15A NCAC 2D .0501(c)(4)(A)]

- c. No monitoring/recordkeeping is required for sulfur dioxide emissions from No. 2 fuel oil for these generators.

2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these generators (ID Nos. G#1, G#2, G#3, and G#4) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

Testing [15A NCAC 2D .0501(c)(8)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 D. 2. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

- d. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of No. 2 fuel oil in these sources.

2.2- Multiple Emission Source(s) Specific Limitations and Conditions

A. Facility-wide affected sources

The following table provides a summary of limits and standards for the emission source(s) describe above:

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Regulated Pollutant	Limits/Standards	Applicable Regulation
toxic air pollutants	State-enforceable only; Toxic Permit Emission Rates shall not be exceeded.	2Q .0711
toxic air pollutants	State-enforceable only; Acceptable Ambient Levels shall not be exceeded.	2D .1100
odors	Odors shall be kept to a minimum.	2D .1806

STATE ENFORCEABLE ONLY

1. **TOXIC AIR POLLUTANT EMISSIONS LIMITATION AND REQUIREMENT** - Pursuant to 15A NCAC 2Q .0711 "Emission Rates Requiring a Permit," for each of the below listed toxic air pollutants (TAPs), the Permittee has made a demonstration that facility-wide actual emissions do not exceed the Toxic Permit Emission Rates (TPERs) listed in 15A NCAC 2Q .0711. The facility shall be operated and maintained in such a manner that emissions of any listed TAPs from the facility, including fugitive emissions, will not exceed TPERs listed in 15A NCAC 2Q .0711.
 - a. A permit to emit any of the below listed TAPs shall be required for this facility if actual emissions from all sources will become greater than the corresponding TPERs.
 - b. PRIOR to exceeding any of these listed TPERs, the Permittee shall be responsible for obtaining a permit to emit TAPs and for demonstrating compliance with the requirements of 15A NCAC 2D .1100 "Control of Toxic Air Pollutants".
 - c. In accordance with the approved application, the Permittee shall maintain records of operational information demonstrating that the TAP emissions do not exceed the TPERs as listed below:

Pollutant	Carcinogens (lb/yr)	Chronic Toxicants (lb/day)	Acute Systemic Toxicants (lb/hr)	Acute Irritants (lb/hr)
Benzene	8.1			
Chlorine		0.79		0.23
Formaldehyde				0.04
Mercury		0.013		
Chromium (VI) Soluble Chromate Compounds		0.013		
Hydrogen fluoride		0.63		0.064
Manganese & compounds		0.63		
Tetrachlorodibenzo-p-dioxin, 2,3,7,8	0.0002			

STATE ENFORCEABLE ONLY

2. **TOXIC AIR POLLUTANT EMISSIONS LIMITATION AND REQUIREMENT** - Pursuant to 15A

NCAC 2D .1100 "Control of Toxic Air Pollutants," and in accordance with the approved application for an air toxic compliance demonstration, the following permit limits shall not be exceeded:

Emission Source(s) ID No(s):	Toxic Air Pollutant(s)	Emission Limit(s)
ES-1a	HCL	0.62 lbs./hr.
ES-1a, ES-1b, 2W	Arsenic	0.5987 lbs./yr.
ES-1a, ES-1b, 2W	Beryllium	0.3927 lbs./yr.
ES-1a, ES-1b, 2W	Cadmium	3.3971 lbs./yr.
ES-1a, ES-1b, 2W	Nickel	23.4199 lbs./yr.

a. Operations Restrictions - To ensure compliance with the above limits, the following restrictions shall apply:



- i. No more than 815,000 gallons of No. 2 fuel oil may be combusted in the facility boilers in a 12 month period.
- ii. The incinerator (ID No. ES-1a) should not be operated more than 4,000 hours per year, with the loading not to exceed more than a total of 1,000 pounds per hour or 16,000 pounds per day of medical waste and housekeeping waste.

b. Recordkeeping Requirements - The following recordkeeping requirements apply:

The facility shall keep records as necessary to demonstrate compliance with the operations restrictions noted above including.

- i. The daily No. 2 fuel consumption.
- ii. HMIWI charge dates, times, and weights and hourly charge rates.

Records shall be kept in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 2D .1100 if records of the amount of fuel used and the charge rate to the incinerator are not monitored.

c. Reporting Requirements - For compliance purposes, within 30 days after each calendar year, regardless of the actual emissions, the following shall be reported to the Regional Supervisor, DAQ:

- i. The monthly No. 2 fuel oil consumption for each of the previous 12 months and the total No. 2 fuel oil consumption for the previous 12 months ending on each month in the reporting quarter,
- ii. The daily No. 2 fuel oil consumption for the previous quarter,

- iii. The daily charge rate to the incinerator for the previous quarter.
- iv. The monthly number of hours of operation for the incinerator.

STATE ENFORCEABLE ONLY

3. 15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

- a. The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

SECTION 3 - GENERAL CONDITIONS

This section describes terms and conditions applicable to this Title V facility. All references to the “permit” in this section apply only to Part I of the permit.

A. **General Provisions** [NCGS 143-215 and 15A NCAC 2Q .0508(aa)]

1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 2D and 2Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. **Permit Availability** [15A NCAC 2Q .0507(k) and .0508(aa)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environment and Natural Resources upon request.

C. **Severability Clause** [15A NCAC 2Q .0508(i)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 2Q .0507(c)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

E. **Duty to Comply** [15A NCAC 2Q .0508(j)]

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a

violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. **Permit Modifications**

1. Administrative Permit Amendments [15A NCAC 2Q .0514]
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 2Q .0514.
2. Transfer of Ownership or Operation [15A NCAC 2Q .0524]
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 2Q .0524.
3. Minor Permit Modifications [15A NCAC 2Q .0515]
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 2Q .0515.
4. Significant Permit Modifications [15A NCAC 2Q .0516]
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 2Q .0516.
5. Reopening for Cause [15A NCAC 2Q .0517]
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 2Q .0517.

H. **Changes Not Requiring Permit Modifications**

1. Section 502(b)(10) Changes [15A NCAC 2Q .0523(a)]
 - a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
 - b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
 - i. the changes are not a modification under Title I of the Federal Clean Air Act;
 - ii. the changes do not cause the allowable emissions under the permit to be exceeded;
 - iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
 - iv. the Permittee shall attach the notice to the relevant permit.
 - c. The written notification shall include:
 - i. a description of the change;
 - ii. the date on which the change will occur;
 - iii. any change in emissions; and
 - iv. any permit term or condition that is no longer applicable as a result of the change.
 - d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
2. Off Permit Changes [15A NCAC 2Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
 - a. the change affects only insignificant activities and the activities remain insignificant after the change; or
 - b. the change is not covered under any applicable requirement.
3. Emissions Trading [15A NCAC 2Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 2D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 2Q .0523(c).

I.A. **Reporting Requirements for Excess Emissions and Permit Deviations**

[15A NCAC 2D .0535(f) and 2Q .0508(f)(3)]

“Excess Emissions” - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 2D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 2Q .0700. (*Note: Definitions of excess emissions under 2D .1110 and 2D .1111 shall apply where defined by rule.*)

“Deviations” - for the purposes of notification under this section, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions, including excess emissions as defined above.

Excess Emissions

1. If a source is required to report excess emissions under NSPS (15A NCAC 2D .0524), NESHAPS (15A NCAC 2D .1110 or .1111), or the operating permit provides for periodic (*e.g.*, quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
2. If the source is not subject to NSPS (15A NCAC 2D .0524), NESHAPS (15A NCAC 2D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 2D .0535 as follows:
 - a. Pursuant to 15A NCAC 2D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
 - i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
 - name and location of the facility;
 - nature and cause of the malfunction or breakdown;
 - time when the malfunction or breakdown is first observed;
 - expected duration; and
 - estimated rate of emissions;
 - ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
 - iii. submit, if requested, to the Regional Supervisor or Director within 15 days after the request a written report as described in 15A NCAC 2D .0535(f)(3).

Other Notification Requirements

3. Pursuant to 15A NCAC 2Q .0508(f)(3), the Permittee shall report deviations or excess emissions lasting for less than or equal to four hours from permit requirements (terms and conditions) as follows:
 - a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 2D .0535 on the next business day after becoming aware of the deviation. A written report shall be submitted within two business days to the Regional Supervisor and shall include the probable cause of such deviation and any corrective actions or preventative actions taken. All reports of deviations from permit requirements shall be certified by a responsible official.

I.B. Other Requirements under 15A NCAC 2D .0535

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 2D .0535, including 15A NCAC 2D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 2D .0535(c)(1) through (7).
2. Note that 15A NCAC 2D .0535(g) is state-enforceable only.

J. Emergency Provisions [40 CFR, 70.6 (g)]

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
 - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
 - b. the permitted facility was at the time being properly operated;
 - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
 - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. **Permit Renewal** [15A NCAC 2Q .0513(b)]

This permit is issued for a fixed term of five years for facilities subject to Title IV requirements and for a term not to exceed five years in the case of all other facilities. This permit shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete renewal application is submitted at least nine months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 2Q .0512(b)(1), this permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of this permit shall remain in effect until the renewal permit has been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 2Q.0508(k)]

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 2Q.0508(n)]

1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 2Q .0507(f)]

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 2Q .0508(f)]

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 2Q .0508(t)]

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street, Atlanta, GA 30303) postmarked on or before January 30 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. The compliance certification shall comply with additional

requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. Certification by Responsible Official [15A NCAC 2Q .0520]

A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. Permit Shield for Applicable Requirements [15A NCAC 2Q .0512]

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
 - a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
 - b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
 - c. the applicable requirements under Title IV; or
 - d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 2Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 2Q .0515.

S. Termination, Modification, and Revocation of the Permit [15A NCAC 2Q .0519]

The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. Insignificant Activities [15A NCAC 2Q .0503]

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. Property Rights [15A NCAC 2Q .0508(m)]

This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. Inspection and Entry [15A NCAC 2Q .0508(r) and NCGS 143-215.3(a)(2)]

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
 - a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
 - b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
 - c. inspect at reasonable times and using reasonable safety practices any source, equipment (including

monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

- d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.

2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. Annual Fee Payment [15A NCAC 2Q .0508(o)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 2Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environment and Natural Resources. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 2Q .0519.

X. Annual Emission Inventory Requirements [15A NCAC 2Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 2Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. Confidential Information [15A NCAC 2Q .0107 and 2Q. 0508(n)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 2Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 2Q .0107.

Z. Construction and Operation Permits [15A NCAC 2Q .0100 and .0300]

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 2Q .0100 and .0300.

AA. Standard Application Form and Required Information [15A NCAC 2Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 2Q .0505 and .0507.

BB. Financial Responsibility and Compliance History [15A NCAC 2Q .0507(d)(3)]

The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. Refrigerant Requirements (Stratospheric Ozone and Climate Protection) [15A NCAC 2Q .0501(e)]

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR, 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. Prevention of Accidental Releases - Section 112(r) [15A NCAC 2Q .0508(g)]

If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) -
FEDERALLY-ENFORCEABLE ONLY

Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

FF. Title IV Allowances [15A NCAC 2Q .0508(h)]

This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. Air Pollution Emergency Episode [15A NCAC 2D .0300]

Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 2D .0300.

HH. Registration of Air Pollution Sources [15A NCAC 2D .0200]

The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 2D .0202(b).

II. Ambient Air Quality Standards [15A NCAC 2D .0501(e)]

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 2D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. General Emissions Testing and Reporting Requirements [15A NCAC 2Q .0508(aa)]

If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ in support of a permit application, the Permittee shall perform such testing in accordance with the appropriate EPA reference method(s) as approved by the DAQ and follow the procedures outlined below. The Permittee must request **in writing** and receive approval from the DAQ for an alternate test method or procedure.

1. The Permittee shall submit a completed Protocol Submittal Form to the DAQ Regional Supervisor at least 45 days prior to the scheduled test date. A copy of the Protocol Submittal Form may be obtained from the Regional Supervisor.
2. The Permittee shall notify the Regional Supervisor of the specific test dates at least 15 days prior to testing in order to afford the DAQ the opportunity to have an observer on-site during the sampling program.
3. During all sampling periods, the Permittee shall operate the emission source(s) under maximum normal operating conditions or alternative operating conditions as deemed appropriate by the Regional Supervisor or his delegate.
4. The Permittee shall submit **two** copies of the test report to the DAQ. The test report shall contain at a minimum the following information:
 - a. a certification of the test results by sampling team leader and facility representative;
 - b. a summary of emissions results and text detailing the objectives of the testing program, the applicable state and federal regulations, and conclusions about the testing and compliance status of the emission source(s);
 - c. a detailed description of the tested emission source(s) and sampling location(s) process flow diagrams, engineering drawings, and sampling location schematics should be included as necessary;
 - d. all field, analytical, and calibration data necessary to verify that the testing was performed as specified in the applicable test methods;
 - e. example calculations for at least one test run using equations in the applicable test methods and all test results including intermediate parameter calculations; and

- f. documentation of facility operating conditions during all testing periods and an explanation relating these operating conditions to maximum normal operation. If necessary, provide historical process data to verify maximum normal operation.
5. The testing requirement(s) shall be considered satisfied only upon written approval of the test results by the DAQ.
6. The DAQ will review emission test results with respect exclusively to the specified testing objectives as proposed by the Permittee and approved by the DAQ. The use of the test results beyond the stated objectives remains subject to the approval of the DAQ.

KK. Reopening for Cause [15A NCAC 2Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
 - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
 - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
 - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
 - d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 2Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 2Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 2Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. Reporting Requirements for Non-Operating Equipment [15A NCAC 2Q .0508(f)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. During operation the monitoring recordkeeping and reporting requirements as prescribed by the permit shall be implemented within the monitoring period.

ATTACHMENT

List of Acronyms

AOS	Alternate Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CAA	Clean Air Act
DAQ	Division of Air Quality
DENR	Department of Environment and Natural Resources
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standard
OAH	Office of Administrative Hearings
PM	Particulate Matter
PM₁₀	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO₂	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound

List of Insignificant Activities under 2Q .0503(8)

Emission Source ID	Emission Source Description	Insignificant Activity Regulation
IS-1	500 kW diesel-fired Caterpillar emergency generator	2Q .0503(8)
IS-2	125 kW Detroit emergency generator	2Q .0503(8)
IS-3	100 kW Generack emergency generator	2Q .0503(8)
IS-4	300 kW Konan emergency generator	2Q .0503(8)
IS-5	10,000 gallon UST gasoline tank and dispensing unit	2Q .0503(8)
IS-6	75,000 gallon AST fuel oil tank	2Q .0503(8)
IS-7	4,000 gallon UST fuel oil tank	2Q .0503(8)
IS-8	Two (2) 15-20 gallon parts washers	2Q .0503(8)

Please see comments related to these insignificant sources in the application review.