



North Carolina Department of Environment and Natural Resources
Division of Air Quality

Michael F. Easley, Governor

William G. Ross, Jr., Secretary
B. Keith Overcash, P.E., Director

XX

Mr. Earl P. Guill
Vice President, US Site Operations
GlaxoSmithKline
PO Box 13398
Mail Code 5.4826
RTP, North Carolina 27709

Dear Mr. Guill:

SUBJECT: Air Quality Permit No. 04612T29
Facility ID: 5/32/00017
GlaxoSmithKline
Research Triangle Park
Durham County
Fee Class: Title V

In accordance with your completed Air Quality Permit Application for renewal of a Title V permit received December 19, 2005, we are forwarding herewith Air Quality Permit No. 04612T29 to GlaxoSmithKline, located at Five Moore Drive and 3030 Cornwallis Road in RTP, North Carolina authorizing the construction and operation, 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(8) 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. **The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.**

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

Permitting Section

1641 Mail Service Center, Raleigh, North Carolina 27699-1641
2728 Capital Blvd., Raleigh, North Carolina 27604
Phone: 919-715-6235 / FAX 919-733-5317 / Internet: www.ncair.org

One
North Carolina
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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 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. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

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 unless the Permittee has fulfilled the requirements of GS 143-215-108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of GS 143-215.108A 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 until XX, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

The changes made to the permit are summarized in the attachment to this letter. Should you have any questions concerning this matter, please contact Michael Gordon at (919) 715-6243.

Sincerely yours,

Donald R. van der Vaart, Ph.D., P.E.,
Chief

Enclosure

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

Air Quality Permit No. 04612T29
GlaxoSmithKline
Research Triangle Park
Insignificant Activities under 15A NCAC 2Q .0503(8)

| Emission Source I.D. | Emission Source Description | Regulatory Basis for Exemption |
|-----------------------------|---|---------------------------------------|
| I-LSS | Lime storage silo | 2Q .0503(8) |
| I-SLC | Spent lime container | 2Q .0503(8) |
| I-T12 and I-T13 | Two 15,000 gallon capacity No. 2 fuel oil storage tanks | 2Q .0503(8) |
| I-T14 and I-T15 | Two 40,268 gallon capacity No. 2 fuel oil storage tanks | 2Q .0503(8) |
| I-T8.1 and I-T8.2 | Two 50,000 gallon capacity No. 2 fuel oil storage tanks | 2Q .0503(8) |
| I-T16 | 4,000 gallon capacity No. 2 fuel oil storage tank | 2Q .0503(8) |
| I-XQ400 | 400 kW emergency generator | 2Q .0503(8) |

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 2D .1100 "Control of Toxic Air Pollutants" or 2Q .0711 "Emission Rates Requiring a Permit".

ATTACHMENT
Air Quality Permit No. 04612T29
GlaxoSmithKline
Research Triangle Park

The following changes were made to the GlaxoSmithKline Air Permit No. 04612T28:

| Old Page No. | New Page No. | Part, Section, or Condition No. | Change |
|--------------|--------------|---------------------------------|--|
| - | - | Throughout | Updated Section lettering and referencing to correspond with the removal of the North Campus Incinerator |
| - | - | Throughout | Corrected EPA Test Method rule citations in various sections from 15A NCAC 2D .0501 to the new 15A NCAC 2D .2600 rules. |
| - | - | Section 2.1 | Added NSPS Subpart DDDD references to the South Campus Incinerator. |
| - | - | Insignificant Activities List | Removed I-11.2 through 11.4 at request of facility. Units no longer exist due to shutdown of North Campus Incinerator. Updated I-T8.1 and I-T8.2 to reflect true capacity (50,000 gal). |
| - | - | General Conditions | Updated conditions to the latest revision |
| 3-7 | 3-7 | Permitted Source Table | Modified Table to incorporate sources and control devices (TempGen1 & 2, TempBoil1 & 2, CD-M-EG-1 & 2, and CD-EG8.1 to 8.5) into the Title V Permit that were previously permitted under 15A NCAC 2Q .0501(c)(2) two-part requirements. Changed lime injection rate for MWI-2 to a minimum of 71 pounds per hour from the previously listed 25 pounds per hour. Updated South Campus Incinerator to include NSPS Subpart DDDD as a regulation. |
| 7-16 | - | Section B | Removed the North Campus Incinerator from the permit. GlaxoSmithKline has dismantled the unit and associated pollution control equipment according to RCRA standards. |
| 8 | 9 | Section 2.1.A.2 | Removed "State Enforceable Only" label due to incorporation of associated rules into the North Carolina State Implementation Plan (SIP) |
| 9 | 9 | Section 2.1.A.2.n | Modified definition of shutdown to coincide with Commercial And Industrial Solid Waste Incinerators. |
| 9 | 10 | Section 2.1.A.2.p | Incorporated table of operating parameters for compliance with 15A NCAC 2D .1210 that were established by initial performance testing. |
| - | 13 | Section 2.1.A.3 | Incorporated CAM requirements for the South Campus Incinerator (MWIS-2) into permit |
| 47 | 46 | Section 2.2.C | Removed reference to North Campus Incinerator |
| 73 | - | Part II | Removed Part II of the permit and consolidated all sources under the permit shield |

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 |
|------------|------------------------|----------------|-----------------|
| 04612T29 | 04612T28 | XX | XX |

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate 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:

GlaxoSmithKline

Facility ID:

3200017

Facility Site Location:

Five Moore Drive and 3030 Cornwallis Road

City, County, State, Zip:

RTP, Durham County, NC 27709

Mailing Address:

Five Moore Drive, Mail Code NTH-P.1164.1C

City, State, Zip:

RTP, Durham County, NC 27709

Application Number:

3200017.05D

Complete Application Date:

December 19, 2005

Primary SIC Code:

2833

Division of Air Quality,

Raleigh Regional Office

Regional Office Address:

3800 Barrett Drive

Raleigh, NC 27609

Permit issued this the XX day of XXXXXX, 2008

Donald R. van der Vaart, Ph.D., P.E., Chief, Air Permits Section
By Authority of the Environmental Management Commission

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(Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)

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(Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)

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ATTACHMENT

List of Acronyms

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 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 this permit is based on plans, specifications, operating parameters, and other information as submitted in the Air Quality Permit Application.

SECTION 1- PERMITTED EMISSION SOURCE (S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE (S) 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 |
|------------------------|--|-----------------------|---|
| SOUTH CAMPUS | | | |
| MWI-2 NSPS - DDDD | <p><u>South Campus Incinerator</u> No. 2 fuel oil/natural gas/non-hazardous waste (types 0 through 6)-fired dual chamber modular excess air combustor (the first chamber has a 2,000 dry pounds per hour waste input capacity with two-one million Btu per hour heat input capacity burners; and the second chamber has one-four million Btu per hour heat input capacity burner and one-six million Btu per hour heat input capacity burner)</p> | MWIS-2 | Dry scrubber consisting of a hydrated lime injection system (minimum of 71 pounds per hour injection rate) and a fabric filter (3,876 square feet of filter area) |
| 42307 | <p><u>Main 1 Boiler</u> No. 2 fuel oil/natural gas-fired boiler (10.5 million Btu per hour heat input)</p> | N/A | N/A |
| 42308 | <p><u>Main 2 Boiler</u> No. 2 fuel oil/natural gas-fired boiler (10.5 million Btu per hour heat input)</p> | N/A | N/A |
| **21103R NSPS - Dc | <p><u>Main 3 Boiler</u> No. 2 fuel oil/natural gas-fired boiler (16.8 million Btu per hour heat input)</p> | N/A | N/A |
| **21102R NSPS - Dc | <p><u>Main 4 Boiler</u> No. 2 fuel oil/natural gas-fired boiler (16.8 million Btu per hour heat input)</p> | N/A | N/A |
| **21101R NSPS - Dc | <p><u>Main 5 Boiler</u> No. 2 fuel oil/natural gas-fired boiler (16.8 million Btu per hour heat input)</p> | N/A | N/A |
| 71296 | <p><u>North 4 Boiler</u> No. 2 fuel oil/natural gas-fired boiler (26.2 million Btu per hour heat input)</p> | N/A | N/A |
| 71297 | <p><u>North 5 Boiler</u> No. 2 fuel oil/natural gas-fired boiler (26.2 million Btu per hour heat input)</p> | N/A | N/A |

| Emission Source ID No. | Emission Source Description | Control Device ID No. | Control Device Description |
|---|--|-----------------------|--|
| N-6 NSPS - Dc | North 6 Boiler No. 2 fuel oil/natural gas-fired boiler (33.6 million Btu per hour heat input) | N/A | N/A |
| M-EG-3 | Emergency Generator (Diesel fuel-fired; 2000 kW electrical power output maximum; 2937 BHP engine power output maximum) | CD-M-EG-3 | Catalytic oxidizer (Voluntary odor control unit) |
| M-EG-2 | Emergency and Peak Shaving Generator (No. 2 fuel oil-fired; 17.5 million Btu per hour heat input) | CD-M-EG-2 | Catalytic oxidizer (Voluntary odor control unit) |
| M-EG-1 | Main Emergency and Peak Shaving Generator (No. 2 fuel oil-fired; 17.5 million Btu per hour heat input) | CD-M-EG-1 | Catalytic oxidizer (Voluntary odor control unit) |
| N-EG-1 | North Emergency and Peak Shaving Generator (No. 2 fuel oil fired-; 17.5 million Btu per hour heat input) | N/A | N/A |
| SCCOMB *70958 *71298 *71299 *N-F1-1 | South Campus Combustion Sources (including insignificant sources): Natural gas-fired boiler (1.3 million Btu per hour heat input) Natural gas-fired boiler (5.0 million Btu per hour heat input) Natural gas-fired boiler (5.0 million Btu per hour heat input) No. 2 fuel oil-fired fire pump diesel engine (1.1 million Btu per hour heat input) | N/A | N/A |
| SCLAB | South Campus Laboratory Sources | N/A | N/A |
| NORTH CAMPUS | | | |
| BLR8.1 | Central Plant Boiler No. 2 fuel oil/natural gas-fired boiler (51.0 million Btu per hour heat input) | N/A | N/A |
| BLR8.2 | Central Plant Boiler No. 2 fuel oil/natural gas-fired boiler (51.0 million Btu per hour heat input) | N/A | N/A |
| BLR8.3 | Central Plant Boiler No. 2 fuel oil/natural gas-fired boiler (51.0 million Btu per hour heat input) | N/A | N/A |
| BLR8.4 NSPS - Dc | Central Plant Boiler No. 2 fuel oil/natural gas-fired boiler (51.0 million Btu per hour heat input) | N/A | N/A |
| EGB.01 | Bide Building Emergency and peak shaving generator (No. 2 fuel oil-fired; 2.79 million Btu per hour heat input) | N/A | N/A |

| Emission Source ID No. | Emission Source Description | Control Device ID No. | Control Device Description |
|------------------------|---|-----------------------|--|
| EGD.01 | Administrative Building Emergency and peak shaving generator (No. 2 fuel oil-fired; 3.77 million Btu per hour heat input) | N/A | N/A |
| EGD.02 | Administrative Building Emergency and peak shaving generator (No. 2 fuel oil-fired; 2.79 million Btu per hour heat input) | N/A | N/A |
| **EG-1400 MACT-ZZZZ | Administration I Building Emergency generator (No. 2 fuel oil-fired, 16.03 million Btu per hour heat input) | N/A | N/A |
| EG8.1 | Central Plant Emergency and peak shaving generator (No. 2 fuel oil-fired; 5.5 million Btu per hour heat input) | CD-M-EG8.1 | Catalytic oxidizer (Voluntary odor control unit) |
| EG8.2 | Central Plant Emergency and peak shaving generator (No. 2 fuel oil-fired; 5.52 million Btu per hour heat input) | CD-M-EG8.2 | Catalytic oxidizer (Voluntary odor control unit) |
| EG8.3 | Central Plant Emergency and peak shaving generator (No. 2 fuel oil-fired; 5.52 million Btu per hour heat input) | CD-M-EG8.3 | Catalytic oxidizer (Voluntary odor control unit) |
| EB8.4 | Central Plant Emergency and peak shaving generator (No. 2 fuel oil-fired; 5.52 million Btu per hour heat input) | CD-M-EG8.4 | Catalytic oxidizer (Voluntary odor control unit) |
| EG8.5 | Central Plant Emergency and peak shaving generator (No. 2 fuel oil-fired; 5.52 million Btu per hour heat input) | CD-M-EG8.5 | Catalytic oxidizer (Voluntary odor control unit) |
| NCLAB | North Campus Laboratory/Pilot Plant Sources | N/A | N/A |
| *NCPB | North Campus Paint Booths | N/A | N/A |

| Emission Source ID No. | Emission Source Description | Control Device ID No. | Control Device Description |
|------------------------|---|-----------------------|----------------------------|
| NCCOMB | North Campus Combustion Sources (Including insignificant sources): | | |
| *A.01 | Natural gas-fired boiler (0.88 million Btu per hour heat input) | | |
| *A.02 | Natural gas-fired boiler (0.88 million Btu per hour heat input) | | |
| *BLRB.01 | Natural gas-fired boiler (2.52 million Btu per hour heat input) | | |
| *BLRB.02 | Natural gas-fired boiler (2.52 million Btu per hour heat input) | | |
| *BLRD.01 | Natural gas-fired boiler (2.71 million Btu per hour heat input) | | |
| *BLRD.02 | Natural gas-fired boiler (2.71 million Btu per hour heat input) | | |
| *BLRF.001 | Natural gas-fired boiler (3.2 million Btu per hour heat input) | | |
| *BLRF.002 | Natural gas-fired boiler (3.2 million Btu per hour heat input) | | |
| *BLR17.01 | Natural gas-fired boiler (1.7 million Btu per hour heat input) | N/A | N/A |
| *BLR17.02 | Natural gas-fired boiler (1.7 million Btu per hour heat input) | | |
| *BLR17.03 | Natural gas-fired boiler (1.7 million Btu per hour heat input) | | |
| *BLR17.04 | Natural gas-fired boiler (1.7 million Btu per hour heat input) | | |
| *104574 | Natural gas-fired boiler (0.73 million Btu per hour heat input) | | |
| *BLR17.07 | Natural gas-fired boiler (1.36 million Btu per hour heat input) | | |
| *EGD.03 | No. 2 fuel oil-fired emergency generator diesel engine (0.58 million Btu per hour heat input) | | |
| *EGE.01 | No. 2 fuel oil-fired emergency generator diesel engine (0.58 million Btu per hour heat input) | | |
| *8.9 | No. 2 fuel oil-fired fire pump diesel engine (1.4 million Btu per hour heat input) | | |

| Emission Source ID No. | Emission Source Description | Control Device ID No. | Control Device Description |
|---------------------------------------|---|------------------------------|-----------------------------------|
| TempGen1 NSPS MACT | One diesel fired temporary emergency internal combustion engine excluding fire pump engine, not to exceed 2,500 kW (electric) [approximately 3,810 hp (mechanical)] output capacity | N/A | N/A |
| TempGen2 NSPS MACT | One diesel fired temporary non-emergency internal combustion engine excluding fire pump engine, not to exceed 2,500 kW (electric) [approximately 3,810 hp (mechanical)] output capacity | N/A | N/A |
| TempBoil1 and TempBoil2 NSPS | Two No. 2 fuel oil-fired temporary boilers each having a heat input capacity not to exceed 22 million Btu per hour | N/A | N/A |

* These emission sources are insignificant for Title V purposes; however, they are permitted pursuant to PSD avoidance requirements and/or state enforceable only toxic air pollutant requirements.

** These emission sources are not a part of the PSD Avoidance conditions listed in Section 2.2 A. or B. of this permit.

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1 - Emission Source(s) and Control Device(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. South Campus Incinerator (ID No. MWI-2) with Dry Lime Injected Scrubber and Fabric Filter (ID No. MWIS-2)

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

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|--|--|--|
| (See pollutants 15A NCAC 2D .1206, HMIW Incinerators) | Co-fired combustor of hospital, medical, and infectious waste exemption requirement - the fuel feed stream shall not contain more than 10 percent by weight of hospital, medical, or infectious waste (calendar quarterly basis) | 15A NCAC 2D .1202(1) |
| PM, Opacity, SO ₂ , NO _x , CO, Odor HCl, Hg, Pb, Cd dioxins/ furans, toxic emissions | Emission limits and work practice standards for Commercial and Industrial Solid Waste Incinerators | 15A NCAC 2D .1210 40 CFR 60 Subpart DDDD |
| VOC, SO ₂ , PM, and NO _x | PSD Avoidance Conditions - less than 250 tons per consecutive twelve month period for each pollutant from each of the North and South Campuses (See Section 2.2 - Multiple Emission Sources) | 15A NCAC 2Q .0317 15A NCAC 2D .0530 PSD Avoidance |

1. 15A NCAC 2D .1202: CONTROL OF EMISSIONS FROM INCINERATORS; DEFINITIONS, CO FIRED WASTE INCINERATOR REQUIREMENT

- a. In order to avoid applicability of 15A NCAC 2D .1206 for Hospital, Medical, and Infectious Waste Incinerators, the South Campus Incinerator (ID No. MWI-2) fuel feed stream shall not contain more than 10 percent by weight of hospital, medical, or infectious waste on calendar quarterly basis. Note that the applicant requested that the exemption wording be modified from 2D .1206(a)(6)(c) to exclude fuel weight monitoring because they do not presently monitor natural gas use. This is acceptable because the maximum weight of natural gas input would be 170 pounds per hour that would increase the amount of medical waste that could be incinerated, and a lesser amount of medical waste will be required to meet the 10 percent limit under this recordkeeping scenario.

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

- b. The Permittee shall keep records of the weight of hospital, medical, and infectious waste, and the weight of other wastes combusted at the co-fired unit in a logbook (written or in electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1206 if the waste inputs are not monitored. [15A NCAC 2D .1206(a)(6)(C)]

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

- c. The Permittee shall submit a summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 for the calendar year for the preceding three-month period between July and September. The report shall contain the following:
- i. The weight of hospital, medical, and infectious waste combusted during the quarter,

- ii. The weight of other wastes combusted during the quarter, and
- iii. The percent, by weight, of hospital, medical, and infectious waste to total waste combusted.

2. 15A NCAC 2D .1210: COMMERCIAL AND INDUSTRIAL SOLID WASTE INCINERATORS

Emission Standards

- a. Particulate Matter. Emissions of particulate matter from a CISWI unit shall not exceed **70 milligrams per dry standard cubic meter corrected to seven percent oxygen (dry basis)**.
- b. Opacity. Visible emissions from the stack of a CISWI unit shall not exceed **10 percent opacity (6-minute block average)**.
- c. Sulfur Dioxide. Emissions of sulfur dioxide from a CISWI unit shall not exceed **20 parts per million by volume corrected to seven percent oxygen (dry basis)**.
- d. Nitrogen Oxides. Emissions of nitrogen oxides from a CISWI unit shall not exceed **368 parts per million by volume corrected to seven percent oxygen (dry basis)**.
- e. Carbon Monoxide. Emissions of carbon monoxide from a CISWI unit shall not exceed **157 parts per million by volume, corrected to seven percent oxygen (dry basis)**.
- f. Odorous Emissions. Any incinerator subject to this Rule shall comply with 15A NCAC 2D .1806 for the control of odorous emissions.
- g. Hydrogen Chloride. Emissions of hydrogen chloride from a CISWI unit shall not exceed **62 parts per million by volume, corrected to seven percent oxygen (dry basis)**.
- h. Mercury Emissions. Emissions of mercury from a CISWI unit shall not exceed **0.47 milligrams per dry standard cubic meter, corrected to seven percent oxygen**.
- i. Lead Emissions. Emissions of lead from a CISWI unit shall not exceed **0.04 milligrams per dry standard cubic meter, corrected to seven percent oxygen**.
- j. Cadmium Emissions. Emissions of cadmium from a CISWI unit shall not exceed **0.004 milligrams per dry standard cubic meter, corrected to seven percent oxygen**.
- k. Dioxins and Furans. Emissions of dioxins and furans from a CISWI unit shall not exceed **0.41 nanograms per dry standard cubic meter (toxic equivalency basis), corrected to seven percent oxygen**. Toxic equivalency is given in Table 4 of 40 CFR part 60, Subpart DDDD.
- l. Toxic Emissions. The owner or operator of any incinerator subject to this Rule shall demonstrate compliance with 15A NCAC 2D .1100 according to 15A NCAC 2Q .0700.
- m. Ambient Standards. In addition to the ambient air quality standards in 15A NCAC 2D .0400, the following ambient air quality standards, which are an annual average, in milligrams per cubic meter at 77o F (25o C) and 29.92 inches (760 mm) of mercury pressure, and which are increments above background concentrations, shall apply aggregately to all incinerators at a facility subject to this Rule:
 - i. Arsenic and its compounds 2.3×10^{-7}
 - ii. Beryllium and its compounds 4.1×10^{-6}
 - iii. Cadmium and its compounds 5.5×10^{-6}
 - iv. Chromium (VI) and its compounds 8.3×10^{-8}

The Permittee shall demonstrate compliance with the ambient standards above by following the procedures set out in 15A NCAC 2D .1106. Modeling demonstrations shall comply with the requirements of 15A NCAC 2D .0533. The emission rates computed or used to demonstrate compliance with the above ambient standards shall be specified as a permit condition for the facility with incinerators as their allowable emission limits unless 15A NCAC 2D .0524, .1110, or .1111 requires more restrictive rates.

Operational Standards

- n. For the purposes of this permit “Shutdown” shall be defined, as the period of time after all waste has been combusted in the primary chamber. Shutdown shall commence no less than two (2) hours after the last charge to the incinerator. Once shutdown has commenced the emissions source is no longer required to meet the operating parameters listed in 2.1.A.2.p below.

- o. The Permittee must operate the fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by you to initiate corrective action.
- p. The following operating parameters shall be continuously monitored and have been established based on performance testing:

| Operating Parameter | Operating Range | Affected Pollutant | Averaging Period* |
|----------------------------------|---|-------------------------------------|--|
| Waste Feed Rate | ≤ 1612 pounds per hour | All | 3-hour average of hourly block charge data |
| Waste Composition | < 10 percent Infectious/Hospital Waste | All | Quarterly Basis |
| Lime Injection Rate | ≥ 71 pounds per hour | SO ₂ , HCL | Rolling 3-hour average |
| CO CEMS Concentration | < 157 ppmvd corrected to 7 percent O ₂ | CO | Rolling 3-hour average |
| Upper Chamber No. 1 Temperature | ≥ 1800°F | CO, NO _x | Rolling 3-hour average |
| Upper Chamber No. 2 Temperature | ≥ 1800°F | CO, NO _x | Rolling 3-hour average |
| Baghouse Inlet Temperature** | ≤ 305 °F | Dioxin/Furan | Rolling 3-hour average |
| Baghouse Leak Detection Alarm*** | Alarm < 5 percent of Operating time | Particulate Matter, Opacity, Metals | Semi-annual average |

* The 3-hour average is not required to be established prior to waste incineration commencing during regular facility operation. The first 3-hour average will be calculated when 3 hours of data are available.

** Baghouse inlet temperature was not part of the initial petition but was added later as a proposed operating limit.

*** Limits for the baghouse leak detection signal are specified in 40 CFR 60.2675(c), adopted by reference at 15A NCAC 2D .1210(f)(3), thus removing the need to establish such limits as part of a testing exercise.

Test Methods and Procedures:

- q. For the purposes of this Paragraph, “Administrator” in 40 CFR 60.8 means “Director” and the test methods and procedures described in 15A NCAC 2D .2601, in 40 CFR Part 60 Appendix A, 40 CFR Part 61 Appendix B, and 40 CFR 60.2690 shall be used to determine compliance with emission standards in Sections 2.1 A.2.a. through 2.1 A.2.m.
- r. Method 29 of 40 CFR Part 60 shall be used to determine emission standards for metals. However, Method 29 shall be used to sample for chromium (VI), and SW 846 Method 0060 shall be used for the analysis.
- s. All performance tests shall consist of a minimum of three test runs conducted under conditions representative of normal operations. Compliance with emissions standards under in Sections 2.1 A.2.a., c., e., and g. through k. shall be determined by averaging three one-hour emission tests. These tests shall be conducted within twelve month following the initial performance test and within every twelve month following the previous annual performance test after that.
- t. The Permittee shall conduct an initial performance test as specified in 40 CFR 60.8 to determine compliance with the emission standards in Sections 2.1 A.2.a. through 2.1 A.2.m. and to establish operating standards using the procedure in Section 2.1 A.2.o. The initial performance test must be conducted no later than June 1, 2006.
- u. The Permittee shall conduct an annual performance test for particulate matter, hydrogen chloride, and opacity as specified in 40 CFR 60.8 to determine compliance with the emission standards for the pollutants in Sections 2.1 A.2.a. through 2.1 A.2.m..
- v. If the Permittee has shown, using performance tests, compliance with particulate matter, hydrogen chloride, and opacity for three consecutive years, the Director may allow the owner or operator of CISWI unit to conduct performance tests for these three pollutants every third year. However, each test shall be within 36 months of the previous performance test. If the CISWI unit continues to meet the emission standards for these three pollutants the Director may allow the owner or operator of CISWI unit to continue to conduct performance tests for these three pollutants every three years.

- w. If a performance test shows a deviation from the emission standards for particulate matter, hydrogen chloride, or opacity, the Permittee unit shall conduct annual performance tests for these three pollutants until all performance tests for three consecutive years show compliance for particulate matter, hydrogen chloride, or opacity.
- x. The Permittee may conduct a repeat performance test at any time to establish new values for the operating limits.
- y. The Permittee shall repeat the performance test if the feed stream is different than the feed streams used during any performance test used to demonstrate compliance.
- z. If the Director has evidence that an incinerator is violating a standard in Sections 2.1 A.2.a. through 2.1 A.2.o. or that the feed stream or other operating conditions have changed since the last performance test, the Director may require the Permittee to test the incinerator to demonstrate compliance with the emission standards in Sections 2.1 A.2.a. through 2.1 A.2.m. at any time.

Monitoring:

- aa. The Permittee shall comply with the monitoring, recordkeeping, and reporting requirements in 15A NCAC 2D .0600 and shall establish, install, calibrate to manufacturers specifications, maintain, and operate;
 - i. Devices or methods for continuous temperature monitoring and recording for the primary chamber and, where there is a secondary chamber, for the secondary chamber;
 - ii. Devices or methods for monitoring the value of the operating parameters used to determine compliance with the operating parameters established under Section 2.1A.2.o;
 - iii. A bag leak detection system that meets the requirements of 40 CFR 60.2730(b)
 - iv. Equipment necessary to monitor compliance with the site-specific operating parameters established under Section 2.1 A.2.o.
- bb. The Director shall require the owner or operator of a CISWI unit with a permitted charge rate of 750 pounds per hour or more to install, operate, and maintain continuous monitors for oxygen or for carbon monoxide or both as necessary to determine proper operation of the CISWI unit.
- cc. The Permittee shall conduct all monitoring at all times the CISWI unit is operating, except;
 - i. Malfunctions and associated repairs;
 - ii. Required quality assurance or quality control activities including calibrations checks and required zero and span adjustments of the monitoring system.
- dd. The data recorded during monitoring malfunctions, associated repairs, and required quality assurance or quality control activities shall not be used in assessing compliance with the operating standards in Section 2.1 A.2.o.
- ee. The full Compliance Assurance Monitoring (CAM) Plan submitted with the Title V renewal application is incorporated into this permit. A table of the requirements outlined by the plan can be found in Section 2.1.A.3 below.

Recordkeeping, and Reporting:

- ff. The Permittee shall maintain records required by this Rule on site in either paper copy or electronic format that can be printed upon request for a period of at least five years.
- gg. The Permittee shall maintain all records required under 40 CFR 60.2740.
- hh. The Permittee shall submit as specified in Table 5 of 40 CFR 60, Subpart DDDD the following reports:
 - i. Initial test report, as specified in 40 CFR 60.2760;
 - ii. Annual reports as specified in 40 CFR 60.2770;
 - iii. Emission limitation or operating limit deviation report as specified in 40 CFR 60.2780;
 - iv. Qualified operator deviation notification as specified in 40CFR 60.2785(a)(1);
 - v. Qualified operator deviation status report, as specified in 40CFR 60.2785(a)(2);
 - vi. Qualified operator deviation notification of resuming operation as specified in 40 CFR 60.2785(b).
- ii. The Permittee shall submit a deviation report if:
 - i. The bag leak detection system alarm sounds for more than five percent of the operating time for the six-month reporting period; or
 - ii. A performance test was conducted that deviated from any emission standards in Section 2.1 A.2.a. through 2.1 A.2.m.

The deviation report shall be submitted by August 1 of the year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data collected during the second half of the calendar year (July 1 to December 31). The Permittee may request changing semiannual or annual reporting dates, and the Director may approve the request change using the procedures specified in 40 CFR 60.19(c).

- jj. Reports required under this Rule shall be submitted electronically or in paper format, postmarked on or before the submittal due dates.
- kk. If the CISWI unit has been shut down by the Director under the provisions of 40 CFR 60.2665(b)(2), due to failure to provide an accessible qualified operator, the owner or operator shall notify the Director that the operations are resumed once a qualified operator is accessible.
- ll. Excess Emissions and Start-up and Shutdown. All incinerators subject to this Rule shall comply with 15A NCAC 2D .0535, Excess Emissions Reporting and Malfunctions

Operator Training and Certification:

- mm. The Permittee shall not allow the CISWI unit to operate at any time unless a fully trained and qualified CISWI unit operator is accessible, either at the facility or available within one hour. The trained and qualified CISWI unit operator may operate the CISWI unit directly or be the direct supervisor of one or more CISWI unit operators.
- nn. Operator training and qualification shall be obtained by completing the requirements of 40 CFR 60.2635(c) by the later of:
 - i. December 1, 2005,
 - ii. Six months after CISWI unit startup, or
 - iii. Six months after an employee assumes responsibility for operating the CISWI unit or assumes responsibility for supervising the operation of the CISWI unit.
- oo. Operator qualification shall be valid from the date on which the training course is completed and the operator successfully passes the examination required in 40 CFR 60.2635(c)(2).
- pp. Operator qualification shall be maintained by completing an annual review or refresher course covering, at a minimum:
 - i. Update of regulations;
 - ii. Incinerator operation, including startup and shutdown procedures, waste charging, and ash handling;
 - iii. Inspection and maintenance;
 - iv. Responses to malfunctions or conditions that may lead to malfunction;
 - v. Discussion of operating problems encountered by attendees.
- qq. Lapsed operator qualification shall be renewed by:
 - i. Completing a standard annual refresher course as specified Section 2.1.A.2.oo. for a lapse less than three years, and
 - ii. Repeating the initial qualification requirements as specified in Section 2.1 A.2.mm. for a lapse of three years or more.
- rr. The Permittee shall:
 - i. Have documentation specified in 40 CFR 60.2660(a)(1) through (10) and (c)(1) through (c)(3) available at the facility and accessible for all CISWI unit operators and are suitable for inspection upon request;
 - ii. Establish a program for reviewing the documentation specified in i. above with each CISWI unit operator:
The initial review of the documentation shall be conducted by the later of the three dates:
(A) December 1, 2005
(B) Six month after CISWI unit startup, or
(C) Six month after an employee assumes responsibility for operating the CISWI unit or assumes responsibility for supervising the operation of the CISWI unit; and
Subsequent annual reviews of the documentation specified in i. above shall be conducted no later than twelve month following the previous review.
- ss. The Permittee shall meet one of the two criteria specified in 40 CFR 60.2665(a) and (b), depending on the length of time, if all qualified operators are temporarily not at the facility and not able to be at the facility within one hour.

Compliance Schedule:

- tt. The Permittee who closes the CISWI unit and restarts it:
 - i. Before December 1, 2005, shall submit along with the permit application, the final control plan for the CISWI unit, and the final compliance shall be achieved by December 1, 2005.
 - ii. After December 1, 2005 shall complete emission control retrofits and meet the emission limitations and operating limits on the date the CISWI unit restarts operation.
- uu. The Permittee that plans to close its CISWI rather than comply with the permit requirements shall submit a closure notification including the date of closure to the Director by December 1, 2003, and shall cease operation by December 1, 2005.

- d. For any excursion exceeding 5 percent of the unit operating time the Permittee shall follow all of the requirements of 40 CFR 60 Subpart DDDD. The Permittee shall initiate an inspection of the control equipment and/or the monitoring systems and conduct all necessary repairs as defined in Section 2.1.A.2 above. The DAQ shall be notified of any excursion from the parameters listed in Table 2.1.A.3.c above when necessary.

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

- e. The results of any stack test shall be reported and the test report shall be submitted within 60 days after the test.
- f. The Permittee shall submit the following as required under 40 C.F.R. 60 Subpart DDDD in lieu of 40 C.F.R. 64 no later than February 1 of each calendar year for the preceding six-month period between July 1 and December 31 and August 1 of each calendar year for the preceding six-month period between January 1 and June 30.
 - i. The calendar dates and times your unit deviated from the emission limitations or operating limit requirements
 - ii. The averaged and recorded data for those dates.
 - iii. Duration and causes of each deviation from the emission limitations or operating limits and your corrective actions.
 - iv. A copy of the operating limit monitoring data during each deviation and any test report that documents the emission levels.
 - v. The dates, times, number, duration, and causes for monitoring downtime incidents (other than downtime associated with zero, span, and other routine calibration checks).
 - vi. Whether each deviation occurred during a period of startup, shutdown, or malfunction, or during another period.

All instances of deviations from the requirements of this permit must be clearly identified.

B. South Campus Boilers: Main 1 Boiler (ID No. 42307), Main 2 Boiler (ID No. 42308) and North 5 Boiler (ID No. 71297)

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 | 0.3322 pounds 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 |
| VOC, SO ₂ , PM, and NO _x | PSD Avoidance Conditions - less than 250 tons per consecutive twelve month period for each pollutant from each of the North and South Campuses (See Section 2.2 - Multiple Emission Sources) | 15A NCAC 2Q .0317 15A NCAC 2D .0530 PSD Avoidance |
| Toxic Air Pollutants | State-enforceable only - compliance with 15A NCAC 2D .1100 (See Section 2.2 - Multiple Emission Sources) | 15A NCAC 2D .1100 |

* Constructed or permitted prior to February 1, 1983 [15A NCAC 2D .0503]

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 these sources into the atmosphere shall not exceed 0.3322 pounds per million Btu heat input. [15A NCAC 2D .0503(a)]

Testing [15A NCAC 2D .2601]

- b. If emission 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 to demonstrate compliance with this standard for combustion of natural gas or No. 2 fuel oil by these sources (see Section 2.2 Multiple Emission Sources for PSD fuel monitoring requirements).

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

- a. Emissions of sulfur dioxide from this source 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 .2601]

- b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2611 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/Reporting [15A NCAC 2Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required to demonstrate compliance with this standard for combustion of natural gas or No. 2 fuel oil by these sources (see Section 2.2 Multiple Emission Sources for fuel monitoring requirements).

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

- a. Visible emissions from these sources 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 .2601]

- b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2610 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 to demonstrate compliance with this standard for combustion of natural gas or No. 2 fuel oil by these sources (see Section 2.2 Multiple Emission Sources for fuel monitoring requirements).

C. South Campus Boiler: North 4 Boiler (ID No. 71296), and North Campus Boilers: Three Central Plant Boilers (ID Nos. BLR8.1, BLR8.2, and BLR8.3)

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 | 0.2287 pounds 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 |
| VOC, SO ₂ , PM, and NO _x | PSD Avoidance Conditions - less than 250 tons per consecutive twelve month period for each pollutant from each of the North and South Campuses (See Section 2.2 - Multiple Emission Sources) | 15A NCAC 2Q .0317 15A NCAC 2D .0530 PSD Avoidance |
| Toxic Air Pollutants | State-enforceable only - compliance with 15A NCAC 2D .1100 (See Section 2.2 - Multiple Emission Sources) | 15A NCAC 2D .1100 |

* Constructed or permitted after February 1, 1983 but prior to April 1, 1999 [15A NCAC 2D .0503]

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 these sources into the atmosphere shall not exceed 0.2287 pounds per million Btu heat input. [15A NCAC 2D .0503(a)]

Testing [15A NCAC 2D .2601]

- b. If emission 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 to demonstrate compliance with this standard for combustion of natural gas or No. 2 fuel oil by these sources (see Section 2.2 Multiple Emission Sources for fuel monitoring requirements).

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

- a. Emissions of sulfur dioxide from this source 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 .2601]

- b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2611 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/Reporting [15A NCAC 2Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required to demonstrate compliance with this standard for combustion of natural gas or No. 2 fuel oil by these sources (see Section 2.2 Multiple Emission Sources for fuel monitoring requirements).

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

- a. Visible emissions from these sources 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 .2601]

- b. If emissions' testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2610 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 to demonstrate compliance with this standard for combustion of natural gas or No. 2 fuel oil by these sources (see Section 2.2 Multiple Emission Sources for fuel monitoring requirements).

**D. South Campus Boiler: North 6 Boiler (ID No. N-6) and
North Campus Boiler: Central Plant Boiler (ID No. BLR8.4)**

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 | 0.2287 pounds 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 |
| VOC, SO ₂ , PM, and NO _x | PSD Avoidance Conditions - less than 250 tons per consecutive twelve month period for each pollutant from each of the North and South Campuses (See Section 2.2 - Multiple Emission Sources) | 15A NCAC 2Q .0317 15A NCAC 2D .0530 PSD Avoidance |
| Toxic Air Pollutants | State-enforceable only - compliance with 15A NCAC 2D .1100 (See Section 2.2 - Multiple Emission Sources) | 15A NCAC 2D .1100 |

* Constructed or permitted after February 1, 1983 but prior to April 1, 1999 [15A NCAC 2D .0503]

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 these sources into the atmosphere shall not exceed 0.2287 pounds per million Btu heat input. [15A NCAC 2D .0503(a)]

Testing [15A NCAC 2D .2601]

- b. If emission 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 D.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 to demonstrate compliance with this standard for combustion of natural gas or No. 2 fuel oil by these sources (see Section 2.2 Multiple Emission Sources for fuel monitoring requirements).

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

- a. Emissions of sulfur dioxide from these sources 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 .2601]

- b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2611 and General Condition JJ found in Section 3. 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 .0516.

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

- c. No monitoring/recordkeeping/reporting is required to demonstrate compliance with this standard for combustion of natural gas or No. 2 fuel oil by these sources (see Section 2.2 Multiple Emission Sources for fuel monitoring requirements).

3. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS - 40 CFR PART 60 SUBPART Dc

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, 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]

Emission Limitations [15A NCAC 2D .0524]

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

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

- c. Sulfur dioxide emissions shall be monitored by fuel supplier certification that shall be used to demonstrate compliance as described under 40 CFR, 60.46c(e). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if sulfur dioxide emissions are not monitored as described above.

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

- d. 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)]

- e. 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 with a summary report, acceptable to the Regional Air Quality Supervisor, of the sulfur content of the distillate fuel oil fired, submitted within 30 days after each semi-annual period, due by January 30 and July 30 of each calendar year for the preceding six-month period. The report shall consist of fuel supplier certification and shall include the following information:
 - i. The name of the oil supplier;
 - ii. 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
 - iii. A certified statement signed by the owner or operator of an affected facility that the records of fuel supplier certification submitted represents all of the fuel fired during the quarter.All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources 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 .2601]

- b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2610 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 D. 4. 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 to demonstrate compliance with this standard for combustion of natural gas or No. 2 fuel oil by these sources (see Section 2.2 Multiple Emission Sources for fuel monitoring requirements).

E. South Campus Internal Combustion Engines for Emergency and Peak Shaving Generators: Two Main (ID Nos. M-EG-1, and M-EG-2) with Two Catalytic Oxidizers (voluntary odor control, ID Nos. CD-M-EG-1 and CD-M-EG-2), and North (ID No. N-EG-1), and North Campus Internal Combustion Engines for Emergency and Peak Shaving Generators: Bide Building (ID No. EGB.01), Two Administrative Building (ID Nos. EGD.01 and EGD.02), and Five Central Plant (ID Nos. EG8.1, EG8.2, EG8.3, EG8.4, and EG8.5) with Five Catalytic Oxidizers (voluntary odor control, ID Nos. CD-EG8.1, CD-EG8.2, CD-EG8.3, CD-EG8.4, and CD-EG8.5)

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 |
| VOC, SO ₂ , PM, and NO _x | PSD Avoidance Conditions - less than 250 tons per consecutive twelve month period for each pollutant from each of the North and South Campuses (See Section 2.2 - Multiple Emission Sources) | 15A NCAC 2Q .0317 15A NCAC 2D .0530 PSD Avoidance |
| Toxic Air Pollutants | State-enforceable only - compliance with 15A NCAC 2D .1100 (See Section 2.2 - Multiple Emission Sources) | 15A NCAC 2D .1100 |

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

- a. Emissions of sulfur dioxide from these sources 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 .2601]

- b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2611 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 E.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- c. No monitoring/recordkeeping/reporting is required to demonstrate compliance with this standard for combustion of natural gas or No. 2 fuel oil by these sources (see Section 2.2 Multiple Emission Sources for PSD fuel monitoring requirements).

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

- a. Visible emissions from these sources 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 .2601]

- b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2610 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.2.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 to demonstrate compliance with this standard for combustion of natural gas or No. 2 fuel oil by these sources (see Section 2.2 Multiple Emission Sources for PSD fuel monitoring requirements).

F. North Campus Emergency Generator (ID No. EG-1400)

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 |
| Hazardous Air Pollutants MACT-ZZZZ | The emergency generators are subject ONLY to Initial Notification Requirements per 40 CFR 63.6645(d). | 15A NCAC 2D .1111 (40 CFR Part 63 Subpart ZZZZ) |

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

- a. Emissions of sulfur dioxide from these sources 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 .2601]

- b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2611 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 F.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- c. No monitoring/recordkeeping/reporting is required to demonstrate compliance with this standard for combustion of No. 2 fuel oil by these sources.

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

- a. Visible emissions from these sources 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 .2601]

- b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2610 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.2.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 to demonstrate compliance with this standard for combustion of No. 2 fuel oil by these sources.

3. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (MACT) 40 CFR PART 63 SUBPART ZZZZ

- a. For the emergency generator (ID No. EG-1400), the Permittee shall comply with all applicable provisions, including the Initial Notification Requirements per 40 CFR 63.6645(d), contained in Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR Part 63 Subpart ZZZZ.

G. South Campus Boilers: Main 3 Boiler (ID No. 21103R), Main 4 Boiler (ID No. 21102R) and Main 5 Boiler (ID No. 21101R)

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 | 0.2284 pounds per million Btu heat input* | 15A NCAC 2D .0503 |
| Sulfur Dioxide | 2.3 pounds per million Btu heat input - natural gas firing | 15A NCAC 2D .0516 |
| Sulfur Dioxide NSPS – Dc | No. 2 fuel oil does not contain more than 0.5 percent sulfur by weight - No. 2 fuel oil firing only | 15A NCAC 2D .0524 (40 CFR Part 60 Subpart Dc) |
| Visible Emissions | 20 percent opacity | 15A NCAC 2D .0521 |
| Sulfur Dioxide | Less than 40 tons per consecutive twelve month period | 15A NCAC 2Q .0317 15A NCAC 2D .0530 PSD Avoidance |

* Constructed or permitted after April 1, 1999 [15A NCAC 2D .0503]

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 these sources into the atmosphere shall not exceed 0.2284 pounds per million Btu heat input. [15A NCAC 2D .0503(a)]

Testing [15A NCAC 2D .2601]

- b. If emission 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 G.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 to demonstrate compliance with this standard for combustion of natural gas or No. 2 fuel oil by these sources.

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

- a. Emissions of sulfur dioxide from these sources 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 .2601]

- b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2611 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 G. 2. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- c. No monitoring/recordkeeping/reporting is required to demonstrate compliance with this standard for combustion of natural gas or No. 2 fuel oil by these sources.

3. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS - 40 CFR PART 60 SUBPART Dc

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, 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]

Emission Limitations [15A NCAC 2D .0524]

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

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

- c. Sulfur dioxide emissions shall be monitored by fuel supplier certification that shall be used to demonstrate compliance as described under 40 CFR, 60.46c(e). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if sulfur dioxide emissions are not monitored as described above.

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

- d. 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)]

- e. 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 with a summary report, acceptable to the Regional Air Quality Supervisor, of the sulfur content of the distillate fuel oil fired, submitted within 30 days after each semi-annual period, due by January 30 and July 30 of each calendar year for the preceding six-month period. The report shall consist of fuel supplier certification and shall include the following information:
 - i. The name of the oil supplier;
 - ii. 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
 - iii. A certified statement signed by the owner or operator of an affected facility that the records of fuel supplier certification submitted represents all of the fuel fired during the quarter.All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources 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 .2601]

- b. If emissions' testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2610 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 G.4.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 to demonstrate compliance with this standard for combustion of natural gas or No. 2 fuel oil by these sources.

5. 15A NCAC 2Q .0317 for avoidance of 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. In order to avoid applicability of 15A NCAC 2D .0530 for major sources and major modifications, the boilers (ID Nos. 21101R, 21102R and 21103R) shall discharge into the atmosphere less than 40 tons of sulfur dioxide from the combustion of No. 2 fuel oil, per consecutive 12-month period. The use of No. 2 fuel oil in boilers (ID Nos. 21101R, 21102R and 21103R) shall be limited such that sulfur dioxide emissions shall not exceed 40 tons for any consecutive 12-month period. To ensure compliance, the use of No. 2 fuel oil in these boilers shall not exceed 1,116,000 gallons per year. [15A NCAC 2D .0530]

Testing [15A NCAC 2Q .2601]

- b. If emission testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 G.5.a., the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

- c. The Permittee shall keep monthly records of the amount of No. 2 fuel oil used in a log (written or in electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the No. 2 fuel oil usage is not monitored.

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

- d. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period and on or before July 30 of each calendar year for the preceding six-month period. The report shall contain the following:
- The monthly sulfur dioxide emissions from No. 2 fuel oil combustion for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months; and
 - The monthly quantities of No. 2 fuel oil consumed for the previous 17 months.

H. North or South Campus: One Diesel-Fired Temporary Emergency Internal Combustion Engine Excluding Fire Pump Engine (ID No. TempGen1), Not to Exceed 2,500 kW (electric) [approximately 3,810 hp (mechanical)] Output Capacity

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 lbs/million Btu when burning diesel fuel (until September 30, 2007) | 15A NCAC 2D .0516 |
| | < 500 ppm sulfur when burning diesel fuel (October 1, 2007 through September 30, 2010) | 15A NCAC 2D .0524 [40 CFR 60 Subpart IIII] |
| | < 15 ppm sulfur when burning diesel fuel (beginning October 1, 2010) | 15A NCAC 2D .0524 [40 CFR 60 Subpart IIII] |
| Visible Emissions | 20 percent opacity except during start-up, shutdown and malfunction | 15A NCAC 2D .0521 |
| HC, NOx, CO, and PM | As defined in specific conditions - See Section 2.1 H.3. | 15A NCAC 2D .0524 [40 CFR 60 Subpart IIII] |
| Hazardous Air Pollutants | As defined in specific conditions - See Section 2.1 H.4. | 15A NCAC 2D .1111 [40 CFR 63 Subpart ZZZZ] |
| Nitrogen Oxides (as NO ₂) | Less than 40 tons per consecutive 12-month period - See Section 2.2 E.1. | 15A NCAC 2Q .0317(a)(1) (Avoidance of 15A NCAC 2D .0530) |
| Nitrogen Oxides | Less than 40 tons per consecutive 12-month period - See Section 2.2 E.2. | 15A NCAC 2Q .0317(a)(2) (Avoidance of 15A NCAC 2D .0531) |

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

- a. Until September 30, 2007, emissions of sulfur dioxide from this source (ID No. TempGen1) shall not exceed 2.3 pounds per million Btu heat input when burning diesel fuel. 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]

Beginning October 1, 2007, the Permittee shall comply with sulfur content requirement in Section 2.1.H.3.c. below, when burning diesel fuel in this source (ID No. TempGen1).

Testing [15A NCAC 2D .2601]

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

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

- c. No monitoring / recordkeeping / reporting is required for sulfur dioxide emissions from diesel fuel burned in this source (ID No. TempGen1).

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

- a. Visible emissions from this source (ID No. TempGen1) 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 .2601]

- b. If emissions' testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 H.2.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 diesel fuel burned in this source.

3. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS [40 CFR 60 SUBPART IIII]¹

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

[15A NCAC 2D .0524]

¹ The Permittee is subject to this requirement if the Permittee orders the CI ICE of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) after July 11, 2005 and the stationary CI ICE of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) is manufactured after April 1, 2006.

Emission Standards

- b. The Permittee shall comply with the emission standards in Table 1 to this Subpart, if the compression ignition internal combustion engine (CI ICE) of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) is a pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder:

HC: 1.3 g/kW-hr (1.0 g/HP-hr)
NOx: 9.2 g/kW-hr (6.9 g/HP-hr)
CO: 11.4 g/kW-hr (8.5 g/HP-hr)
PM: 0.54 g/kW-hr (0.4 g/HP-hr)

[§60.4205(a)]

OR

The Permittee shall comply with the following emission standards for NOx, if the CI ICE of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) is a pre-2007 model year emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

17.0 g/kW-hr when maximum test speed is less than 130 rpm.

$45.0 \times N - 0.20$ when maximum test speed is at least 130 but less than 2000 rpm, where N is the maximum test speed of the engine in revolutions per minute.

(Note: Round speed-dependent standards to the nearest 0.1 g/kW-hr.)

9.8 g/kW-hr when maximum test speed is 2000 rpm or more.

[§60.4205(a) and §94.8(a)(1)]

OR

The Permittee shall comply with the emission standards for new non-road CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later stationary emergency stationary CI ICE, if the CI ICE of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) is a 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder.

[§60.4205(b)]

OR

The Permittee shall comply with the following emission standards if the CI ICE of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) is an emergency CI ICE with a displacement of greater than or equal to 30 liters per cylinder:

Reduce nitrogen oxides (NOX) emissions by 90 percent or more, or limit the emissions of NOX in the stationary CI internal combustion engine exhaust to 1.6 g/kW-hr (1.2 g/HP-hr).

Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/kW-hr (0.11 g/HP-hr).

[§60.4205(d)]

- c. The Permittee shall use diesel fuel in emergency CI ICE of temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) with a sulfur content of less than 500 ppm beginning October 1, 2007. The Permittee shall use diesel fuel in emergency CI ICE of temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) with a sulfur content of less than 15 ppm beginning October 1, 2010.

[§60.4207(a) and (b), and §80.510(a) and (b)]

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

- d. If emissions' testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 H. 3. b. and c. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.
- e. If the emergency CI ICE of temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) is required to comply with the emission standards in §60.4205(a) and the Permittee chooses to demonstrate compliance by conducting an initial stack test, then the Permittee shall perform initial stack test as per §60.4212. If the results of this test are above the limits given in Section 2.1 H. 3. b. and c. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.4211(b)(5)]

- f. The Permittee shall perform initial stack test as per §60.4213, if the emergency CI ICE of temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) is required to comply with the emission standards in §60.4205(d). If the results of this test are above the limits given in Section 2.1 H. 3. b. and c. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.4211(d)(1)]

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

- g. The CI ICE shall be equipped with a non-resettable hour meter prior to startup, if the CI ICE of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) is an emergency stationary CI ICE. If the CI ICE of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) is not equipped with a non-resettable hour meter prior to startup, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.4209(a)]

- h. If the emergency stationary CI ICE of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) is equipped with diesel particulate filter to comply with the emission standards in Section 2.1 H.3.b. above, the Permittee shall install a backpressure monitor on diesel particulate filter that notifies the Permittee when the high backpressure limit of the engine is approached. If the diesel particulate filter is not equipped with backpressure monitor or the Permittee is not monitoring the backpressure of the diesel particulate filter, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.4209(b)]

- i. The Permittee shall operate and maintain the emergency CI ICE of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) in accordance with the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer. The Permittee may only change engine settings that are permitted by the manufacturer. The Permittee shall also meet the requirements of 40 CFR 89, 94 and/or 1068 as applicable. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the requirements in this Section 2.1 H.3.i. are not complied with.

[§60.4206 and §60.4211(a)]

- j. The Permittee shall demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of §60.4211, if the Permittee is required to comply with the emission standards specified in §60.4205(a) for its pre-2007 model year emergency stationary CI ICE of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the requirements in this Section 2.1 H.3.j. are not complied with.

[§60.4211(b)]

- k. The Permittee shall purchase 2007 model year and later emergency CI ICE of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) certified to the emission standards in §60.4205(b), for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's specifications. If the installed CI ICE of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) is not certified to meet the emission standards in §60.4205(b) or the CI ICE is not configured according to the manufacturers specifications, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.4211(c)]

- l. If the displacement of emergency stationary CI ICE of temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) is greater than or equal to 30 liters per cylinder and it is required to comply with the emission standards in §60.4205(d), the Permittee shall establish operating parameters to be monitored continuously to ensure that the stationary internal combustion engine continues to meet the emission standards. The Permittee shall petition the Administrator for approval of operating parameters to be monitored continuously. The petition shall include the information described in paragraphs (d)(2)(i) through (v) of §60.4211. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the requirements in this Section 2.1 H.3.l. are not complied with.

[§60.4211(d)(2)]

- m. The Permittee may operate the emergency stationary CI ICE of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) for maintenance checks and readiness testing for up to 100 hours per year provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Operation during an actual emergency shall not be subject to a limit on hours. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Because the Permittee is required to comply with emission standards under §60.4205 for CI engines of emergency internal combustion engine excluding fire pump engine set (ID No. ES-EG001) and not under §60.4204, any operation other than emergency operation, and maintenance and testing as allowed in §60.4211 is prohibited. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the requirements in this Section 2.1 H.3.m. are not complied with.

If the emergency stationary CI ICE of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) meets the applicable emission standards for non-emergency stationary CI ICE in §60.4204, the limitation on operation of CI ICE (100 hrs per year for maintenance checks and readiness testing) do not apply.

[§60.4211(e)]

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

- n. Starting with the model years in Table 5 to NSPS Subpart IIII, if the emergency stationary CI ICE of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if these records are not maintained.

[§60.4214(b)]

- o. If the emergency stationary CI ICE of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) is equipped with diesel particulate filter, the Permittee shall keep records of any corrective action taken after the backpressure monitor has notified the Permittee that the high backpressure limit of the engine is approached. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if these records are not maintained.

[§60.4214(c)]

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

- p. No initial notifications under §60.7(a)(1) and (a)(3) are required for emergency stationary CI ICE of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1).

[§60.4214(b)]

- q. The Permittee shall submit a summary report of monitoring and recordkeeping activities 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 shall be clearly identified.

**4. 15A NCAC 2D .1111 MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY
[40 CFR 63 SUBPART ZZZZ]²**

- a. The Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, record keeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" as promulgated in 40 CFR Part 63 Subpart ZZZZ "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) " including Subpart A "General Provisions."

[15A NCAC 2D .1111]

- b. If the new RICE of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) is deemed to be an "emergency stationary RICE", the Permittee shall comply with only initial notification requirements in Subpart A, and the Permittee does not have to comply with the requirements of Subpart ZZZZ or any other requirements in Subpart A.

[§63.6590(b)(1)(i)]

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

- c. The Permittee shall submit the initial notification no later than 120 days from the start-up of the RICE of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1).

The initial notification shall include the information in §63.9(b)(2)(i) through (v), a statement that the stationary RICE of the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) has no additional requirements, and explanation of the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE).

[§63.6645(c) and §63.6645(d)]

² The Permittee is subject to this requirement if the new RICE's commencement of construction is on or after December 19, 2002, the new RICE's site-rating is more than 500 brake horsepower, and the new RICE is located at a major source of HAP emissions.

I. North or South Campus: One Diesel-Fired Temporary Non-emergency Internal Combustion Engine Excluding Fire Pump Engine (ID No. TempGen2), Not to Exceed 2,500 kW (electric) [approximately 3,810 hp (mechanical)] Output Capacity

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 lbs/million Btu when burning diesel fuel (until September 30, 2007) | 15A NCAC 2D .0516 |
| | < 500 ppm sulfur when burning diesel fuel (October 1, 2007 through September 30, 2010) | 15A NCAC 2D .0524 [40 CFR 60 Subpart IIII] |
| | < 15 ppm sulfur when burning diesel fuel (Beginning October 1, 2010) | 15A NCAC 2D .0524 [40 CFR 60 Subpart IIII] |
| Visible Emissions | 20 percent opacity except during start-up, shutdown and malfunction | 15A NCAC 2D .0521 |
| HC, NO _x , CO, and PM | As defined in specific conditions - See Section 2.1 I.3. | 15A NCAC 2D .0524 [40 CFR 60 Subpart IIII] |
| Hazardous Air Pollutants | As defined in specific conditions - See Section 2.1 I.4. | 15A NCAC 2D .1111 [40 CFR 63 Subpart ZZZZ] |
| Nitrogen Oxides (as NO ₂) | As defined in specific conditions - See Section 2.1 I.5. | 15A NCAC 2D .1418 and 15A NCAC 2D .1423 |
| Nitrogen Oxides (as NO ₂) | Less than 40 tons per consecutive 12-month period - See Section 2.2 E.1. | 15A NCAC 2Q .0317(a)(1) (Avoidance of 15A NCAC 2D .0530) |
| Nitrogen Oxides | Less than 40 tons per consecutive 12-month period - See Section 2.2 E.2. | 15A NCAC 2Q .0317(a)(2) (Avoidance of 15A NCAC 2D .0531) |

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

- a. Until September 30, 2007, emissions of sulfur dioxide from this source (ID No. TempGen2) shall not exceed 2.3 pounds per million Btu heat input when burning diesel fuel. 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]

Beginning October 1, 2007, the Permittee shall comply with sulfur content requirement in Section 2.1 I.3.c. below, when burning diesel fuel in this source (ID No. TempGen2).

Testing [15A NCAC 2D .2601]

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

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

- c. No monitoring / recordkeeping / reporting is required for sulfur dioxide emissions from diesel fuel burned in this source (ID No. TempGen2).

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

- a. Visible emissions from this source (ID No. TempGen2) 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 .2601]

- b. If emissions' testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 I.2.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 diesel fuel burned in this source.

3. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS [40 CFR 60 SUBPART IIII]³

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

[15A NCAC 2D .0524]

Emission Standards

- b. The Permittee shall comply with the following emission standards as included in Table 1 to this Subpart, if the CI ICE of the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) is a pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder:

HC: 1.3 g/kW-hr (1.0 g/HP-hr)
NOx: 9.2 g/kW-hr (6.9 g/HP-hr)
CO: 11.4 g/kW-hr (8.5 g/HP-hr)
PM: 0.54 g/kW-hr (0.4 g/HP-hr)

[\$60.4204(a)]

OR

The Permittee shall comply with the following emission standards for NOx, if the CI ICE of the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) is a pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

17.0 g/kW-hr when maximum test speed is less than 130 rpm.

45.0 × N-0.20 when maximum test speed is at least 130 but less than 2000 rpm, where N is the maximum test speed of the engine in revolutions per minute.

(Note: Round speed-dependent standards to the nearest 0.1 g/kW-hr.)

³ The Permittee is subject to this requirement if the Permittee orders the CI ICE of the temporary non-emergency emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) after July 11, 2005 and the stationary CI ICE of temporary non-emergency emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) is manufactured after April 1, 2006.

9.8 g/kW-hr when maximum test speed is 2000 rpm or more.

[§60.4204(a) and §94.8(a)(1)]

OR

The Permittee shall comply with the emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable, if the CI ICE of the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) is a 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder.

[§60.4204(b)]

OR

The Permittee shall comply with the following emission standards if the CI ICE of the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) is a non-emergency CI ICE with a displacement of greater than or equal to 30 liters per cylinder:

Reduce nitrogen oxides (NOX) emissions by 90 percent or more, or limit the emissions of NOX in the stationary CI internal combustion engine exhaust to 1.6 g/kW-hr (1.2 g/HP-hr).

Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/kW-hr (0.11 g/HP-hr).

[§60.4204(c)]

- c. The Permittee shall use diesel fuel in non-emergency CI ICE of temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) with a sulfur content of less than 500 ppm beginning October 1, 2007. The Permittee shall use diesel fuel in non-emergency CI ICE of temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) with a sulfur content of less than 15 ppm beginning October 1, 2010.

[§60.4207(a) and (b), and §80.510(a) and (b)]

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

- d. If emissions' testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 I. 3. b. and c. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.
- e. If the non-emergency stationary CI ICE of temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) is required to comply with the emission standards in §60.4204(a) and the Permittee chooses to demonstrate compliance by conducting an initial stack test, then the Permittee shall perform initial stack test as per §60.4212. If the results of this test are above the limits given in Section 2.1 I. 3. b. and c. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.4211(b)(5)]

- f. The Permittee shall perform initial and subsequent annual stack tests as per §60.4213, if non-emergency stationary CI ICE of temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) has a displacement of greater than or equal to 30 liters per cylinder and it is required to comply with the emission standards specified in §60.4204(c). If the results of any tests are above the limits given in Section 2.1 I. 3. b. and c. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.4211(d)(1) and §60.4211(d)(3)]

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

- g. If the non-emergency stationary CI ICE of the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) is equipped with diesel particulate filter to comply with the emission standards in Section 2.1 J.3.b. above, the Permittee shall install a backpressure monitor on diesel particulate filter that notifies the Permittee when the high backpressure limit of the engine is approached. If the diesel particulate filter is not equipped with backpressure monitor or the Permittee is not monitoring the backpressure of the diesel particulate filter, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.4209(b)]

- h. The Permittee shall operate and maintain the non-emergency CI ICE of the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) in accordance with the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer. The Permittee may only change engine settings that are permitted by the manufacturer. The Permittee shall also meet the requirements of 40 CFR 89, 94 and/or 1068 as applicable. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the requirements in this Section 2.1 I.3.h. are not complied with.

[§60.4206 and §60.4211(a)]

- i. The Permittee shall demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of §60.4211, if the Permittee is required to comply with the emission standards specified in §60.4204(a) for its pre-2007 model year non-emergency stationary CI ICE of the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the requirements in this Section 2.1 I.3.i. are not complied with.

[§60.4211(b)]

- j. The Permittee shall purchase 2007 model year and later non-emergency CI ICE of the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) certified to the emission standards in §60.4204(b), for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's specifications. If the installed CI ICE of the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) is not certified to meet the emission standards in §60.4204(b), or the CI ICE is not configured according to the manufacturers specifications, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.4211(c)]

- k. If the displacement of non-emergency stationary CI ICE of temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) is greater than or equal to 30 liters per cylinder and it is required to comply with the emission standards in §60.4204(c), the Permittee shall establish operating parameters to be monitored continuously to ensure that the stationary internal combustion engine continues to meet the emission standards. The Permittee shall petition the Administrator for approval of operating parameters to be monitored continuously. The petition shall include the information described in paragraphs (d)(2)(i) through (v) of §60.4211. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the requirements in this Section 2.1 I.3.k. are not complied with.

[§60.4211(d)(2)]

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

- l. If non-emergency stationary CI ICE of the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) is greater than 2,237 KW (3,000 HP), or it has a displacement of greater than or equal to 10 liters per cylinder, or it is a pre-2007 model year engine that is greater than 130 KW (175 HP) and not certified, than the Permittee shall keep records of the information in paragraph (a)(2) of §60.4214.

[§60.4214(a)(2)]

- m. If the non-emergency stationary CI ICE of the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) is equipped with diesel particulate filter, the Permittee shall keep records of any corrective action taken after the backpressure monitor has notified the Permittee that the high backpressure limit of the engine is approached. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if these records are not maintained.

[§60.4214(c)]

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

- n. If non-emergency stationary CI ICE of the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) is greater than 2,237 KW (3,000 HP), or it has a displacement of greater than or equal to 10 liters per cylinder, or it is a pre-2007 model year engine that is greater than 130 KW (175 HP) and not certified, than the Permittee shall submit initial notification as required in §60.7(a) and meeting the requirements of paragraph (a)(1) of §60.4214.

[§60.4214(a)(1)]

- o. The Permittee shall submit a summary report of monitoring and recordkeeping activities 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 shall be clearly identified.

**4. 15A NCAC 2D .1111 MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY
[40 CFR 63 SUBPART ZZZZ]⁴**

- a. The Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, record keeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" as promulgated in 40 CFR Part 63 Subpart ZZZZ "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) " including Subpart A "General Provisions."

[15A NCAC 2D .1111]

Emission Standards and Operating Limits

- b. The Permittee shall comply with the following emission and operating limitations for the new CI stationary RICE of temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2):
 - i. Reduce carbon monoxide (CO) emissions by 70 percent or more OR limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O₂.

[40 CFR 63.6600(b)]

- ii. Maintain the oxidation catalyst such that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load \pm 10 percent from the pressure drop across the catalyst that was measured during the initial performance test AND maintain the temperature of the stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 0F and less than or equal to 1350 0F.

[40 CFR 63.6600(b)]

⁴ The Permittee is subject to this requirement if the new RICE's commencement of construction is on or after December 19, 2002, the new RICE's site-rating is more than 500 brake horsepower, and the new RICE is located at a major source of HAP emissions.

Testing [15A NCAC 2Q .0508(f) and 15A NCAC 2D .1111]

- c. The Permittee shall conduct the initial performance test or other initial demonstration in Table 4 of this Subpart as applicable within 180 days of startup of the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2), and according to the provisions of §63.7(a)(2), §63.6620 and General Condition JJ. If the results of this test are above the limits given in Section 2.1 I.4.b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.

[§63.6610(a) and §63.6620]

- d. The Permittee is not required to conduct an initial performance test on RICE of the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) for which a performance test has been previously conducted. However, the Permittee shall demonstrate that the test meets all of the conditions described in paragraphs (d)(1) through (5) of §63.6610.

[§63.6610(d)]

- e. The Permittee shall demonstrate initial compliance with each emission and operating limitation applicable to the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) according to Table 5 of this Subpart. If the Permittee does not demonstrate initial compliance with each emission and operating limitation applicable to the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) according to Table 5 of this Subpart, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.

[§63.6630(a)]

- f. During the initial performance test, the Permittee shall establish each operating limitation in Tables 1b and 2b of this Subpart as applicable. If the Permittee does not establish each operating limitation in Tables 1b and 2b of this Subpart as applicable, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.

[§63.6630(b)]

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

- g. The Permittee shall be in compliance with the emission standards and the operating limit, at all times except during periods of startup, shutdown, and malfunction. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111, if the emission and operating limitations are not complied at all times except during periods of startup, shutdown, and malfunction.

[§63.6605(a)]

- h. The Permittee shall operate and maintain the stationary RICE of the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) including any air pollution control and monitoring equipment in a manner consistent with the good air pollution control practices at all times, including during startup, shutdown, and malfunction. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111, if the Permittee does not operate and maintain the emission source including any air pollution control and monitoring equipment in accordance with the with the good air pollution control practices at all times, including during startup, shutdown, and malfunction.

[§63.6605(b)]

- i. The Permittee shall conduct subsequent performance tests as specified in Table 3 of this Subpart. If the results of any subsequent performance tests are above the limit given in Section 2.1 I.4.b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.

[§63.6615]

- j. If the Permittee elects to install a CEMS as specified in Table 5 of this Subpart, the Permittee shall install, operate, and maintain a CEMS to monitor CO and either oxygen or CO₂ at both the inlet and the outlet of the control device according to the requirements in paragraphs (a)(1) through (4) of §63.6625(a). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111, if the requirements in this Section 2.1 I.4.j. are not complied with.

[§63.6625(a)]

- k. If the Permittee is required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this Subpart, the Permittee shall install, operate, and maintain each CPMS according to the requirements in §63.8. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111, if a CPMS is not installed, operated or maintained.

[§63.6625(b)]

- l. The Permittee shall monitor and collect data according to §63.6635(a). If the Permittee does not monitor and collect data according to §63.6635(a), the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.

[§63.6635(a)]

- m. Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall monitor continuously at all times that the stationary RICE is operating. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111, if the requirements in this Section 2.1 I.4.m. are not complied with.

[§63.6635(b)]

- n. The Permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The Permittee shall, however, use all the valid data collected during all other periods. If the Permittee uses data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.

[§63.6635(c)]

- o. The Permittee shall demonstrate continuous compliance with each emission limitation and operating limitation in Tables 2a and 2b of this Subpart as applicable, according to methods specified in Table 6 of this Subpart. If the Permittee does not demonstrate continuous compliance with each emission limitation and operating limitation in Tables 2a and 2b of this Subpart as applicable, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.

[§63.6640(a)]

- p. If the Permittee changes the catalyst of the RICE, the Permittee shall reestablish the values of the operating parameters measured during the initial performance test. When the Permittee reestablishes the values of the operating parameters, the Permittee shall also conduct a performance test to demonstrate compliance with the emission limitations in Section 2.1 I.4.b. above. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111, if the requirements in this Section 2.1.I.4.p. are not complied with.

[§63.6640(b)]

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

- q. The Permittee shall keep a copy of each notification and report submitted to comply with this MACT, including all documentation supporting any Initial Notification or Notification of Compliance Status.

[§63.6655(a)(1)]

- r. The Permittee shall keep records in §63.6(e)(3)(iii) related to start-up, shutdown, and malfunctions.

[§63.6655(a)(2)]

- s. The Permittee shall keep records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).

[§63.6655(a)(3)]

- t. For each CEMS or CPMS, the Permittee shall keep the records listed in paragraphs (b)(1) through (3) of §63.6655.

[§63.6655(b)]

- u. The Permittee shall keep the records required in Table 6 of this Subpart to show continuous compliance with each emission or operating limitation applicable to the RICE of the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2).

[§63.6655(c)]

- v. The Permittee shall keep each record for five years. Out of five years, the Permittee shall keep the records readily accessible in hard copy or electronic form on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). For the remaining 3 years, the Permittee can keep the records off-site.

[§63.6660(a), (b), and (c)]

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the recordkeeping requirements of the Section 2.1 I.4. q. through v. above, are not complied with or any records indicate exceedance of the emission or operating limitations of Section 2.1 J.4. b. above.

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

- w. For the RICE of the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2), the Permittee shall submit all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h), as applicable, by the dates specified.

[40 CFR 63.6645(a)]

- x. The Permittee shall submit the initial notification no later than 120 days from the start-up of the RICE of the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2).

[§63.6645(c)]

- z. The Permittee shall submit a Notification of Intent to conduct a performance test at least 60 days before the test is scheduled to begin as required in §63.7(b)(1).

[§63.6645(e)]

- aa. The Permittee shall submit Notification of Compliance Status according to §63.9(h)(2)(ii) for each performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this Subpart.

[§63.6630(c) and §63.6645(f)]

- bb. For each initial compliance demonstration required in Table 5 of this Subpart that does not include a performance test, the Permittee shall submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

[§63.6645(f)(1)]

- cc. For each initial compliance demonstration required in Table 5 of this Subpart that includes a performance test conducted according to the requirements in Table 4 to this Subpart, the Permittee shall submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).

[§63.6645(f)(2)]

- dd. The Permittee shall submit each report in Table 7 of this Subpart as applicable to the RICE of the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2).

[§63.6650(a)]

- ee. Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), the Permittee shall submit each report by the date in Table 7 of this Subpart and according to the requirements in paragraphs (b)(1) through (5) of §63.6650.

[§63.6650(b)]

- ff. The Permittee shall submit each compliance report consisting of information in paragraphs (c)(1) through (6) of §63.6650.

[§63.6650(c)]

- gg. For each deviation from an emission or operating limitation that occurs for a stationary RICE where the Permittee is not using a continuous monitoring system (CMS) to comply with the emission or operating limitations in this Subpart, the Permittee shall submit the compliance report containing the information in paragraphs (c)(1) through (4) and the information in paragraphs (d)(1) and (2) of §63.6650.

[§63.6650(d)]

- hh. For each deviation from an emission or operating limitation occurring for a stationary RICE where the Permittee is using a CMS to comply with the emission and operating limitations in this Subpart, the Permittee shall report the information in paragraphs (c)(1) through (4) and (e)(1) through (12) of §63.6650.

[§63.6650(e)]

- ii. The Permittee shall report each instance in which the Permittee did not meet the requirements in Table 8 of this Subpart as applicable to the RICE of the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2).

[§63.6640(e)]

- jj. The Permittee shall report each instance in which the Permittee did not meet each emission limitation or operating limitation in Tables 2a and 2b of this Subpart as applicable. These instances are deviations from the emission and operating limitations in this Subpart.

[§63.6640(b)]

- kk. The Permittee shall report all deviations as defined in this Subpart in the semiannual reporting required in Section 2.1.I. 4. II. below.

- ll. The Permittee shall submit a summary report of monitoring and recordkeeping activities 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 shall be clearly identified.

5. 15A NCAC 2D .1418: NEW ELECTRIC GENERATING UNITS, LARGE BOILERS, AND LARGE I/C ENGINES⁵

15A NCAC 2D .1423: LARGE INTERNAL COMBUSTION ENGINES⁶

- a. NO_x emissions from diesel fired stationary internal combustion engine of temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) shall not exceed 175 ppm expressed as NO₂ corrected to 15 percent parts per million by volume (ppmv) stack gas oxygen on a dry basis, averaged over a rolling 30-day period, as may be adjusted in Section 2.1 I.5.b. below.

[15A NCAC 2D .1418(c) and 15A NCAC 2D .1423(b)]

- b. The Permittee may adjust the emission limitation in Section 2.1 I.5.a. above, by multiplying by X, where X equals the engine efficiency (E) divided by a reference efficiency of 30 percent. Engine efficiency (E) shall be determined using one of the methods specified in Section 2.1 I.5. b. i. or ii. below, whichever provides a higher value. However, engine efficiency (E) shall not be less than 30 percent. An engine with efficiency lower than 30 percent shall be assigned an efficiency of 30 percent.

i. $E = [(\text{Engine output}) * 100] / [\text{Energy input}]$

Where energy input is determined by a fuel-measuring device accurate to plus or minus 5 percent and is based on the higher heating value (HHV) of the fuel. Percent efficiency (E) shall be averaged over 15 consecutive minutes and measured at peak load for the applicable engine.

ii. $E = [(\text{Manufacture's Rated Efficiency [continuous] at LHV}) * (\text{LHV})] / [(\text{HHV})]$

Where, LHV is the lower heating value of the fuel and HHV is the higher heating value of the fuel.

[15A NCAC 2D .1423(c)]

- c. The emission limitation in Section 2.1 I.5.a. above as may be adjusted in Section 2.1 I.5.b. above, shall not apply during the start-up and shut-down periods, and periods of malfunction not to exceed 36 consecutive hours, and during the regularly scheduled maintenance activities.

[15A NCAC 2D .1423(g)]

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

- d. If emissions' testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 I.5.a. above as may be adjusted in Section 2.1 I.5.b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1418 and .1423.

Monitoring/Record keeping [15A NCAC 2Q .0508(f), and 15A NCAC 2D .1423(d) and (f)]

- e. The Permittee shall determine compliance using either of the following two methods:
- A continuous emissions monitoring system (CEMS) which meets the applicable requirements of Appendices B and F of 40 CFR part 60, excluding data obtained during periods specified in Section 2.1 I.5.c. above and 15A NCAC 2D .1404.
 - An alternate calculated and recordkeeping procedure based on actual emissions testing and correlation with operating parameters. The installation, implementation, and use of this alternate procedure shall be approved by the Director before it may be used. The Director may approve the alternative procedure if he finds that it can show the compliance status of the engine.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1418 and .1423, if the requirements in this Section 2.1 I.5.e. are not complied with.

⁵ The Permittee is subject to this requirement if the internal combustion engine is permitted after October 30, 2000 and the rating of diesel fired stationary internal combustion engine is equal to or greater than 3,000 brake horsepower.

⁶ The Permittee is subject to this requirement if the internal combustion engine is permitted after October 30, 2000 and the rating of diesel fired stationary internal combustion engine is equal to or greater than 3,000 brake horsepower.

- f. The Permittee shall maintain all records necessary to demonstrate compliance with 15A NCAC 2D .1418 and .1423 for two calendar years at the facility at which the engine is located. The records shall be made available to the Director upon request. The Permittee shall maintain records of the following information for each day the engine operates:
 - i. Identification and location of the engine;
 - ii. Calendar date of record;
 - iii. The number of hours the engine operated during each day, including startups, shutdowns, and malfunctions, and the type and duration of maintenance and repairs;
 - iv. Date and results of each emissions inspection;
 - v. a summary of any emissions corrective maintenance taken;
 - vi. The results of all compliance tests;
 - vii. If a unit is equipped with a continuous emission monitoring system:
 - (A) Identification of time periods during which nitrogen oxide standards are exceeded, the reason for the excess emissions, and action taken to correct the excess emissions and to prevent similar future excess emissions; and
 - (B) Identification of the time periods for which operating conditions and pollutant data were not obtained including reasons for not obtaining sufficient data and a description of corrective actions taken.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1418 and .1423 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f) and 15A NCAC 2D .1423(e)]

- g. The Permittee shall submit a report documenting the engine’s total nitrogen oxide emissions beginning May 1 and ending September 30 of each year to the Director by October 31 of each year, beginning with the year of first ozone season that the engine operates.
- h. The Permittee shall submit an excess emissions and monitoring systems performance report, according to the requirements of 40 CFR 60.7(c) and 60.13, if a continuous emissions monitoring system is used.
- i. All instances of deviations from the requirements of this permit must be clearly identified.

J. North or South Campus: Two No. 2 fuel oil-fired Temporary Boilers (ID Nos. TempBoil1 and TempBoil2), Each Having a Heat Input Capacity Not to Exceed 22 million Btu per hour

The following provides a summary of limits and/or standards for the emission source(s) described above.

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---------------------|--|---|
| Particulate Matter | 0.22 lb/million Btu heat input | 15A NCAC 2D .0503 |
| Visible Emissions | 20 percent opacity | 15A NCAC 2D .0521 |
| Sulfur Dioxide | 0.5 lb/million Btu heat input OR 0.5 weight percent sulfur content | 15A NCAC 2D .0524 (NSPS Subpart Dc) |
| Sulfur Dioxide | Less than 40 tons per consecutive 12-month period | 15A NCAC 2Q .0317(a)(1) (Avoidance of 15A NCAC 2D .0530) |

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

- a. Emissions of particulate matter from the combustion of No. 2 fuel oil, that are discharged from the sources (ID Nos. TempBoil1 and TempBoil2) into the atmosphere shall not exceed 0.22 pound per million Btu heat input each. [15A NCAC 2D .0503(c)]

Testing [15A NCAC 2D .2601]

- b. If emission 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 J. 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, or reporting is required for particulate emissions when firing No. 2 fuel oil in the sources (ID Nos. TempBoil1 and TempBoil2).

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

- a. Visible emissions from sources (ID Nos. TempBoil1 and TempBoil2) 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 .2601]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 J.2. 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, or reporting is required for visible emissions when firing No. 2 fuel oil in the sources (ID Nos. TempBoil1 and TempBoil2).

3. 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]

Emission Standard [15A NCAC 2D .0524]

- b. SO₂ emissions from combustion of No. 2 fuel oil in the sources (ID Nos. TempBoil1 and TempBoil2) shall not exceed 0.5 lb/million Btu heat input. In the alternate to the SO₂ emission limit, the Permittee can comply with the maximum sulfur content limit of 0.5 percent by weight for No. 2 fuel oil burned in the sources (ID Nos. TempBoil1 and TempBoil2).

[\$60.42c(d)]

- c. SO₂ emission limit or fuel sulfur limit for No. 2 fuel oil shall apply at all times, including periods of start-up, shutdown, and malfunction.

[\$60.42c(i)]

Testing [15A NCAC 2D .2601]

- d. As required by §60.8, the following initial performance test shall be conducted in accordance with General Condition JJ:
 - i. **Sulfur Dioxide**
 - (A) **Distillate Oil** - The initial performance test shall consist of the fuel supplier certification as allowed under 40 CFR 60.44c(h).

If the results of this test are above the limit given in Section 2.1 J.3.b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

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

- e. The Permittee shall use the fuel supplier certification for No. 2 fuel oil to demonstrate compliance with SO₂ emission standard in Section 2.1 J. 3.b. above. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if sulfur dioxide emissions are not monitored as described above or any fuel supplier certification indicates the sulfur content of the fuel oil exceeded the sulfur content limit in Section 2.1 J.3.b. above.

[\$60.42c(h)(1)]

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

- f. 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 day.

However, if the Permittee is using very low sulfur fuel oil (i.e., 0.5 % by weight sulfur [0.5 lb SO₂/million Btu]), the Permittee shall keep records of the very low sulfur fuel oil burned for each calendar month for each affected boiler.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

[§60.48c(g)]

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

- g. 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. The date construction (40 CFR 60.7) or reconstruction (40 CFR 60.15) of an affected facility is commenced, postmarked no later than 30 days after such date;
 - ii. The actual date of initial start-up of an affected facility, postmarked within 15 days after such date;
 - iii. The performance test data of the initial test for SO₂ emission limits in §60.42c, postmarked within 180 days of initial startup of an affected facility;
 - iv. A summary report, acceptable to the Regional Air Quality Supervisor, of the sulfur content of the distillate 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 submitted represents all of the fuel fired during the semi annual period.
 - v. All instances of deviations from the requirements of this permit must be clearly identified.

[§60.7, §60.8, and §60.48c(f)(1)]

**4. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. In order to avoid applicability of 15A NCAC 2D .0530, sulfur dioxide emissions from the boilers (ID Nos. TempBoil1 and TempBoil2) shall be less than 40 tons (combined total) per consecutive 12-month period [15A NCAC 2D .0530].

Testing [15A NCAC 2Q .2601]

- b. If emission testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 J.4.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

- c. The combined total amount of No. 2 fuel oil burned in boilers (ID Nos. TempBoil1 and TempBoil2) shall not exceed 108,000,000 gallons per consecutive 12-month period. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the combined total amount of No. 2 fuel oil burned in these boilers exceeds 1,080,000 gallons per consecutive 12-month period per consecutive 12-month period.
- d. The sulfur content of No. 2 fuel oil burned in boilers (ID Nos. TempBoil1 and TempBoil2) shall not exceed 0.5 weight percent. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the sulfur content of the No. 2 fuel oil burned in these boilers exceed 0.5 weight percent.
- e. The Permittee shall keep monthly records of the amount of fuel oil burned and the sulfur content of fuel oil including certification of the fuel, for each boiler in a logbook (written or in electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if these records are not maintained.

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

- f. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities 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. The report shall contain the following:
 - i. The monthly quantities of No. 2 fuel oil burned for the previous 17 months; and
 - ii. The average sulfur content of No. 2 fuel oil and,
 - iii. All instances of deviations from the requirements of this permit must be clearly identified.

K. Emergency Generator (Diesel fuel-fired; 2000 kW electrical power output maximum; 2937 BHP engine power output maximum) (ID No. M-EG-3)

The following provides a summary of limits and/or standards for the emission source(s) described above.

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|----------------------------------|--|--|
| Sulfur Dioxide | < 500 ppm sulfur when burning diesel fuel (October 1, 2007 through September 30, 2010) < 15 ppm sulfur when burning diesel fuel (Beginning October 1, 2010) | 15A NCAC 2D .0524 [40 CFR 60 Subpart IIII] 15A NCAC 2D .0524 [40 CFR 60 Subpart IIII] |
| Visible Emissions | 20 percent opacity except during start-up, shutdown and malfunction | 15A NCAC 2D .0521 |
| HC, NO _x , CO, and PM | As defined in specific conditions - See Section 2.1 L.2. | 15A NCAC 2D .0524 [40 CFR 60 Subpart IIII] |
| Hazardous Air Pollutants | Initial notification requirements only See Section 2.1 L.3. | 15A NCAC 2D .1111 [40 CFR 63 Subpart ZZZZ] |

1. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from the emergency generator (ID No. M-EG-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 .2601]

- b. If emissions' testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2610 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 K. 2. 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 diesel fuel oil in this source.

2. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS [40 CFR 60 SUBPART IIII]

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

Emission Standards

- b. The Permittee shall comply with the emission standards for new non-road CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for the emergency generator (ID No. M-EG-3).

[§60.4205(b)]

- c. The Permittee shall use diesel fuel with a sulfur content of less than 500 ppm in the emergency generator (ID No. M-EG-3) beginning October 1, 2007. The Permittee shall use diesel fuel with a sulfur content of less than 15 ppm in the emergency generator (ID No. M-EG-3) beginning October 1, 2010.

[§60.4207(a) and (b), and §80.510(a) and (b)]

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

- d. If an emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1.K.2.b. and c. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

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

- e. The emergency generator (ID No. M-EG-3) shall be equipped with a non-resettable hour meter prior to startup. If the emergency generator (ID No. M-EG-3) is not equipped with a non-resettable hour meter prior to startup, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.4209(a)]

- f. The Permittee shall operate and maintain the emergency generator (ID No. M-EG-3) in accordance with the manufacturer's written instructions or procedures, developed by the Permittee, that is approved by the engine manufacturer. The Permittee may only change engine settings that are permitted by the manufacturer. The Permittee shall also meet the requirements of 40 CFR 89, 94 and/or 1068 as applicable. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the requirements in this Section (2.1.K.2.f.) are not complied with.

[§60.4206 and §60.4211(a)]

- g. The Permittee shall purchase the emergency generator (ID No. M-EG-3) certified to the emission standards in §60.4205(b). The generator shall be installed and configured according to the manufacturer's specifications. If the emergency generator (ID No. M-EG-3) is not certified to meet the emission standards in §60.4205(b) or is not configured according to the manufacturers specifications, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.4211(c)]

- h. The Permittee may operate the emergency generator (ID No. M-EG-3) for maintenance checks and readiness testing for up to 100 hours per year provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Operation during an actual emergency shall not be subject to a limit on hours. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Because the Permittee is required to comply with emission standards under §60.4205 for the emergency generator (ID No. M-EG-3 and not under §60.4204, any operation other than emergency operation, and maintenance and testing as allowed in §60.4211 is prohibited. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the requirements in this Section (2.1.K.2.h.) are not complied with.

[§60.4211(e)]

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

- i. To assure compliance, the Permittee shall perform inspections and maintenance on the emergency generator (ID No. M-EG-3) as recommended by the manufacturer per 40CFR60.4206 and 40CFR60.4211(a). The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. The date and time of each recorded action;
 - ii. The results of each inspection;
 - iii. The results of any maintenance performed on the emergency generator; and
 - iv. Any variance from manufacturer's recommendations, if any, and corrections made.The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

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

- j. No initial notifications under §60.7(a)(1) and (a)(3) are required for emergency generator (ID No. M-EG-3).

[§60.4214(b)]

- k. The Permittee shall submit a summary report of monitoring and recordkeeping activities 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 shall be clearly identified.

**3. 15A NCAC 2D .1111 MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY
[40 CFR 63 SUBPART ZZZZ]**

- a. The Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, record keeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" as promulgated in 40 CFR Part 63 Subpart ZZZZ "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) " including Subpart A "General Provisions."

[15A NCAC 2D .1111]

- b. As the emergency generator (ID No. EG-3) is deemed to be an "emergency stationary RICE", the Permittee shall comply with only initial notification requirements in Subpart A, and the Permittee does not have to comply with the requirements of Subpart ZZZZ or any other requirements in Subpart A.

[§63.6590(b)(1)(i)]

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

- c. The Permittee shall submit the initial notification no later than 120 days from the start-up of emergency generator (ID No. M-EG-3). The initial notification shall include the information in §63.9(b)(2)(i) through (v), a statement that the emergency generator (ID No. M-EG-3) has no additional requirements, and explanation of the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE).

[§63.6645(c) and §63.6645(d)]

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

A. South Campus Combustion Sources (ID No. SCCOMB) and South Campus Laboratory Sources (ID No. SCLAB)

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

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|--|---|--|
| VOC, SO ₂ , PM, and NO _x | Emissions of each regulated pollutant must be less than 250 tons per consecutive twelve-month period. | 15A NCAC 2Q .0317 15A NCAC 2D .0530 PSD Avoidance |

1. 15A NCAC 2D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. In order to avoid applicability of this regulation, the above emission sources shall discharge into the atmosphere less than 250 tons each of VOC's, SO₂, PM, and NO_x per consecutive 12-month period. [15A NCAC 2D .0530]

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

- b. The amounts of VOC containing materials shall be monitored and recorded monthly. Calculations of VOC emissions per month shall be made at the end of each month and recorded in a logbook (written or electronic format). VOC emissions shall be determined by multiplying the total amount of each type of VOC containing material consumed during the month by the VOC content of the material less any VOC reclaimed, incinerated, shipped offsite, or not otherwise emitted such as in a chemical reaction. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the amounts of VOC containing materials are not monitored and recorded or if the VOC emissions are not calculated and recorded.
- c. The Permittee shall keep monthly records in a logbook (written or electronic format) of the amount of each fuel fired. Calculations of SO₂, PM, and NO_x shall be made monthly and recorded in a logbook (written or electronic format) using the most current version of US EPA emission factors from AP-42-"Compilation of Air Pollutant Emission Factors". The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the fuel use is not monitored and recorded or if SO₂, PM, and NO_x emissions are not calculated and recorded.

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

- d. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities 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. The report shall contain the following:
- i. The monthly VOC, SO₂, PM, and NO_x emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months;

B. North Campus Combustion Sources (ID No. NCCOMB), North Campus Laboratory Sources (ID No. NCLAB), and North Campus Paint Booths (ID No. NCPB)

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

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|--|---|--|
| VOC, SO ₂ , PM, and NO _x | Emissions of each regulated pollutant must be less than 250 tons per consecutive twelve-month period. | 15A NCAC 2Q .0317 15A NCAC 2D .0530 PSD Avoidance |

1. 15A NCAC 2D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. In order to avoid applicability of this regulation, the above emission sources shall discharge into the atmosphere less than 250 tons each of VOC’s, SO2, PM, and NOx per consecutive 12-month period. [15A NCAC 2D .0530]

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

- b. The amounts of VOC containing materials shall be monitored and recorded monthly. Calculations of VOC emissions per month shall be made at the end of each month and recorded in a logbook (written or electronic format). VOC emissions shall be determined by multiplying the total amount of each type of VOC containing material consumed during the month by the VOC content of the material less any VOC reclaimed, incinerated, shipped offsite, or not otherwise emitted such as in a chemical reaction. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the amounts of VOC containing materials are not monitored and recorded or if the VOC emissions are not calculated and recorded.
- c. The Permittee shall keep monthly records in a logbook (written or electronic format) of the amount of each fuel fired. Calculations of SO2, PM, and NOx shall be made monthly and recorded in a logbook (written or electronic format) using the most current version of US EPA emission factors from AP-42-"Compilation of Air Pollutant Emission Factors". The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the fuel use is not monitored and recorded or if SO2, PM, and NOx emissions are not calculated and recorded.

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

- d. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities 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. The report shall contain the following:
 - i. The monthly VOC, SO2, PM, and NOx emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months.

C. South Campus Incinerator (ID No. MWI-2), North and South Campus Laboratories (ID Nos. NCLAB and SCLAB), and North Campus Paint Booths (ID No. NCPB)

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

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---------------------|---|-----------------------|
| Odor | State-enforceable only - Odorous emissions must be controlled | 15A NCAC 2D .1806 |

STATE-ONLY REQUIREMENT

1. 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.
- b. If the Director determines that a source or facility is emitting an objectionable odor, by the procedures described below, the Permittee shall:
 - i. Within 180 days of receipt of written notification from the Director of the requirement to implement maximum feasible controls, complete the determination process outlined in 15A NCAC 2D .1807 and submit to the Director a completed maximum feasible control determination process, a permit application for maximum feasible controls and a compliance schedule;
 - ii. Within 18 months of receipt of written notification from the Director of the requirement to implement maximum feasible controls, have installed and begun operating maximum feasible controls.
- c. The Director may require the Permittee to implement maximum feasible controls per 15A NCAC 2D .1806(g) if:

- i. A member of the Division staff determines by field investigation that an objectionable odor is present by taking into account nature, intensity, pervasiveness, duration, and source of the odor and other pertinent factors;
- ii. The source or facility emits known odor causing compounds such as ammonia, total volatile organics, hydrogen sulfide, or other sulfur compounds at levels that cause objectionable odors beyond the property line of that source or facility; or
- iii. The Division receives epidemiological studies associating health problems with odors from the source or facility or evidence of documented health problems associated with odors from the source or facility provided by the State Health Director.

D. North and South Campus Combustion Sources (ID Nos. NCCOMB and SCCOMB), North and South Campus Laboratory Sources (ID No. NCLAB and SCLAB), and North Campus Paint Booths (ID No. NCPB)

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 (TAPs) | Impact from emissions of each TAP must be less than its respective acceptable ambient levels. | 15A NCAC 2D .1100 |

STATE-ONLY REQUIREMENT:

1. **TOXIC AIR POLLUTANT EMISSIONS LIMITATION AND REPORTING REQUIREMENT** - Pursuant to 15A NCAC 2D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following limits shall not be exceeded:

| Emission Source(s) | Toxic Air Pollutants | Emission Limits |
|---|----------------------|---------------------------|
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Acetaldehyde | 411.0 lb/hr 5.0 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Acetic acid | 56.3 lb/hr 0.7 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Acrolein | 1.2 lb/hr 0.02 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Acrylonitrile | 793.5 lb/yr 89.3 lb/yr |

| Emission Source(s) | Toxic Air Pollutants | Emission Limits |
|--|----------------------------------|--|
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Ammonia | 41.1 lb/hr 0.5 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Aniline | 15.2 lb/hr 0.2 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Combustion Sources (ID No. NCCOMB) South Campus Combustion Sources (ID No. SCCOMB) North Campus Paint Booths (NCPB) | Arsenic and Arsenic Compounds | 0.6 lb/yr 3.6 lb/yr 1.0 lb/yr 0.1 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Aziridine | 9.6 lb/day 0.6 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Benzene | 628.0 lb/yr 71.4 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Benzidene and salts | 0.1 lb/yr 0.01 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Benzo(A)pyrene | 174.6 lb/yr 19.6 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Benzyl Chloride | 7.6 lb/hr 0.1 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Beryllium | 21.0 lb/yr 2.4 lb/yr |

| Emission Source(s) | Toxic Air Pollutants | Emission Limits |
|--|--|---------------------------------|
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Beryllium Chloride | 21.7 lb/yr 2.4 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Beryllium Fluoride | 21.7 lb/yr 2.4 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Beryllium Nitrate | 21.7 lb/yr 2.4 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Bio-available Chromate Pigments, as Chromium (VI) Equivalent | 0.4 lb/yr 0.05 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Bis-chloromethyl Ether | 2.0 lb/yr 0.2 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Bromine | 3.0 lb/hr 0.04 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | 1,3-Butadiene | 899.3 lb/yr 101.2 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Cadmium | 28.5 lb/yr 3.3 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Cadmium Acetate | 29.1 lb/yr 3.3 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Cadmium Bromide | 29.1 lb/yr 3.3 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Carbon Disulfide | 296.7 lb/day 18.0 lb/day |

| Emission Source(s) | Toxic Air Pollutants | Emission Limits |
|---|---------------------------|--|
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Carbon Tetrachloride | 35,441.9 lb/yr 3,989.1 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Chlorine | 13.7 lb/hr and 59.8 lb/day 0.2 lb/hr and 3.6 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Chlorobenzene | 3,509.7 lb/day 213.1 lb/day |
| North Campus Laboratories (ID No. NCLAB) South Campus Laboratories (ID Nos. SCLAB) North Campus Paint Booths (NCPB) | Chloroform | 27,000 lb/yr 22,500 lb/yr 100.0 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Chloroprene | 53.3 lb/hr and 701.9 lb/day 0.7 lb/hr and 42.6 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Cresol | 33.5 lb/hr 0.4 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | P-Dichlorobenzene | 1,004.7 lb/hr 12.3 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Dichlorodifluoromethane | 395,635.1 lb/day 24,025.5 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Dichlorofluoromethane | 797.7 lb/day 48.4 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Di(2-ethylhexyl)phthalate | 47.9 lb/day 2.9 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Dimethyl Sulfate | 4.8 lb/day 0.3 lb/day |

| Emission Source(s) | Toxic Air Pollutants | Emission Limits |
|--|------------------------------------|--|
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | 1,4 Dioxane | 893.4 lb/day 54.3 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Epichlorohydrin | 439,056.8 lb/yr 49,417.8 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Ethyl Acetate | 2,131.1 lb/hr 26.0 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Ethylene Diamine | 38.1 lb/hr and 478.6 lb/day 0.5 lb/hr and 29.1 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Ethylene Dibromide | 2,115.9 lb/yr 238.2 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Ethylene Dichloride | 20,101.4 lb/yr 2,262.5 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Ethylene Glycol Monoethyl Ether | 28.9 lb/hr and 191.4 lb/day 0.4 lb/hr and 11.6 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Ethylene Oxide | 142.8 lb/yr 16.1 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Ethyl Mercaptan | 1.5 lb/hr 0.02 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Fluorides | 3.8 lb/hr and 25.5 lb/day 0.05 lb/hr and 1.6 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Formaldehyde | 2.3 lb/hr 0.03 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Hexachlorocyclo-Pentadiene | 0.2 lb/hr and 1.0 lb/day 0.002 lb/hr and 0.1 lb/day |

| Emission Source(s) | Toxic Air Pollutants | Emission Limits |
|--|--|--|
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Hexachlorodibenzo-P-Dioxin | 0.4 lb/yr 0.05 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | N-Hexane | 1,754.8 lb/day 106.6 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Hexane Isomers Except N-Hexane | 5,480.1 lb/hr 66.9 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Hydrazine | 1.0 lb/day 0.1 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Hydrogen Chloride | 10.4 lb/hr 0.1 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Hydrogen Cyanide | 16.7 lb/hr and 223.3 lb/day 0.2 lb/hr and 13.6 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Hydrogen Fluoride | 3.8 lb/hr and 47.9 lb/day 0.05 lb/hr and 2.9 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Hydrogen Sulfide | 32.0 lb/hr 0.4 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Maleic Anhydride | 1.5 lb/hr and 19.1 lb/day 0.02 lb/hr and 1.2 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Manganese And Manganese Compounds | 49.5 lb/day 3.0 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Manganese Cyclopentadienyl Tricarbonyl | 1.0 lb/day 0.1 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Manganese Tetroxide | 9.9 lb/day 0.6 lb/day |

| Emission Source(s) | Toxic Air Pollutants | Emission Limits |
|--|---------------------------------------|--|
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Mercury, Alkyl | 0.1 lb/day 0.01 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Mercury, Aryl And Inorganic Compounds | 1.0 lb/day 0.1 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Mercury, Vapor | 0.8 lb/day 0.1 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Methyl Chloroform | 3,729.5 lb/hr and 19,143.6 lb/day 45.5 lb/hr and 1,162.5 lb/day |
| North Campus Laboratories (ID No. NCLAB) South Campus Laboratories (ID No. SCLAB) North Campus Paint Booths (NCPB) | Methylene Chloride | 150,000 lb/yr 125,600 lb/yr 100.0 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Methyl Ethyl Ketone | 1,347.2 lb/hr and 5,902.6 lb/day 16.4 lb/hr and 358.4 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Methyl Isobutyl Ketone | 456.7 lb/hr and 4,084.0 lb/day 5.6 lb/hr and 248.0 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Methyl Mercaptan | 0.8 lb/hr 0.01 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Nickel Carbonyl | 1.0 lb/day 0.1 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Nickel Metal | 9.6 lb/day 0.6 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Nickel, Soluble Compounds, As Nickel | 0.9 lb/day 0.1 lb/day |

| Emission Source(s) | Toxic Air Pollutants | Emission Limits |
|--|---|--|
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Nickel Subsulfide | 11.1 lb/yr 1.3 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Nitric Acid | 15.2 lb/hr 0.2 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Nitrobenzene | 7.6 lb/hr and 95.7 lb/day 0.1 lb/hr and 5.8 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | N-Nitrosodimethylamine | 264.5 lb/yr 29.8 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Non-Specific Chromium (VI) Compounds, As Chromium (VI) Equivalent | 0.4 lb/yr 0.05 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Pentachlorophenol | 0.4 lb/hr and 4.8 lb/day 0.005 lb/hr and 0.3 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Perchloroethylene | 1,005,069.7 lb/yr 113,124.7 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Phenol | 14.5 lb/hr 0.2 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Phosgene | 4.0 lb/day 0.2 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Phosphine | 2.0 lb/hr 0.02 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Polychlorinated Biphenyls | 439.1 lb/yr 49.4 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Soluble Chromate Compounds, as Chromium (VI) Equivalent | 1.0 lb/day 0.1 lb/day |

| Emission Source(s) | Toxic Air Pollutants | Emission Limits |
|--|--|--|
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Styrene | 161.4 lb/hr 2.0 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Sulfuric Acid | 1.4 lb/hr and 15.5 lb/day 0.02 lb/hr and 1.2 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Tetrachlorodibenzo-P-Dioxin | 0.02 lb/yr 0.002 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | 1,1,1,2-Tetrachloro-2,2-Difluoroethane | 82,955.8 lb/day 5,037.6 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | 1,1,2,2-Tetrachloro-1,2-Difluoroethane | 82,955.8 lb/day 5,037.6 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | 1,1,2,2 Tetrachloroethane | 33,326.0 lb/yr 3,751.0 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Toluene | 852.5 lb/hr and 7,497.9 lb/day 10.4 lb/hr and 455.3 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Toluene-2,4- Diisocyanate | 0.2lb/hr and 0.8 lb/day 0.003 lb/hr and 0.05 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Trichloroethylene | 312,100.6 lb/yr 35,128.2 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Trichlorofluoromethane | 8,524.6 lb/hr 104.0 lb/hr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | 1,1,2-Trichloro-1,2,2-Trifluoroethane | 14,461.3 lb/hr 176.5 lb/hr |

| Emission Source(s) | Toxic Air Pollutants | Emission Limits |
|--|----------------------|--|
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Vinyl Chloride | 2,010.1 lb/yr 226.2 lb/yr |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Vinylidene Chloride | 191.4 lb/day 11.6 lb/day |
| North and South Campus Laboratories (ID Nos. NCLAB and SCLAB) North Campus Paint Booths (NCPB) | Xylene | 989.5 lb/hr and 4,307.3 lb/day 12.1 lb/hr and 261.6 lb/day |

Fuel Consumption Limitations

- a. To ensure compliance with the above limits, the consumption of No. 2 fuel oil shall not exceed 1,670,000 gallons per year from the South Campus combustion sources and 6,150,000 gallons per year from the North Campus combustion sources.

Monitoring and Recordkeeping Requirements

- b. The Permittee shall maintain records of fuel use, chemical use, and surface coating use, and/or other process information necessary in determining the emissions of toxic air pollutants.
- c. Calculations of No. 2 fuel oil consumption shall be made and recorded monthly.
- d. The net annual chemical usage by the North and South Campuses, excluding the North Campus paint booths, shall be calculated and recorded annually. The net annual chemical usage is defined as the quantity of toxic air pollutants purchased less the quantity disposed in waste and consumed in chemical reactions for the twelve month period. For comparison with permitted emission limits, the net annual chemical usage (NACU) shall be divided by the following factors:

| | |
|----------------|--|
| Emission Limit | NACU Divisor |
| Annual | 1 year |
| 24 hour | 260 (based on 52 weeks/year x 5 days/week) |
| 1 hour | 2,080 (based on 52 weeks/year x 5 days/week x 8 hours/day) |

- e. The amount and content of the surface coating materials used by the North Campus paint booths and the total quantity of each toxic air pollutant shall be calculated based on surface coating composition and quantity and recorded annually.

Reporting Requirements

- f. The Permittee shall submit an **annual** summary report within 30 days after each calendar year period, postmarked on or before January 30th, for the preceding twelve-month period, to the Air Quality Regional Supervisor, Division of Air Quality containing the following items:
- The monthly fuel consumption,
 - The net annual chemical usage and corresponding toxic air pollutant emission rates, and
 - The annual quantity of toxic air pollutants emitted from the paint booths.
- Records shall be retained for a minimum of three years from the date of recording.

E. North or South Campus: One Diesel-Fired Temporary Emergency Internal Combustion Engine Excluding Fire Pump Engine (ID No. TempGen1), Not to Exceed 2,500 kW (electric) [approximately 3,810 hp (mechanical)] Output Capacity

North or South Campus: One Diesel-Fired Temporary Non-emergency Internal Combustion Engine Excluding Fire Pump Engine (ID No. TempGen2), Not to Exceed 2,500 kW (electric) [approximately 3,810 hp (mechanical)] Output Capacity

**1. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS
or 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. In order to avoid applicability of 15A NCAC 2D .0530, nitrogen oxides (as NO₂) emissions from the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) and the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) shall be less than 40 tons (combined total) per consecutive 12-month period [15A NCAC 2D .0530].

Testing [15A NCAC 2D .2601]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.2 E.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

- c. In order to ensure compliance with the above emission limit, the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) and temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) shall be limited to no more than 870 hours (combined total) of operation per consecutive 12-month period. The Permittee shall record monthly hours of operation for each of these internal combustion engines excluding fire pump engines. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the above records are not kept or if the combined total hours of operation for the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) and the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) exceed 870 hours per consecutive 12-month period.

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

- d. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities 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. The report shall contain the following:
- i. The monthly hours of operation for the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) and the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) for the previous 17 months. All instances of deviations from the requirements of this permit shall be clearly identified.

**2. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 2D .0531: SOURCES IN NONATTAINMENT AREAS**

- a. In order to avoid applicability of 15A NCAC 2D .0531, nitrogen oxides emissions from the temporary emergency internal combustion engine excluding fire pump engine (ID No. TempGen1) and the temporary non-emergency internal combustion engine excluding fire pump engine (ID No. TempGen2) shall be less than 40 tons (combined total) per consecutive 12-month period [15A NCAC 2D .0531].

Testing [15A NCAC 2D .2601]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.2 E.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0531.

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

- c. Monitoring / recordkeeping requirements in Section 2.2 E.1.c. above shall be sufficient to assure compliance with 15A NCAC 2D .0531. If the requirements of Section 2.2 E.1.c. above are not complied with, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0531.

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

- d. Reporting requirements in Section 2.2 E.1.d. above shall be sufficient to assure compliance with 15A NCAC 2D .0531.

2.3 - Permit Shield for Non-applicable Requirements

The Permittee is shielded from the following non-applicable requirements [15A NCAC 2Q .0512(a)(1)(B)].

- A. National Emission Standards for Synthetic Organic Chemical Manufacturing Facilities (40 CFR 63-Subparts F, G, H, and I) and Pharmaceutical Manufacturing Facilities (40 CFR 63-Subpart GGG) are not applicable because research and development/non commercial production activities are exempt per 40 CFR 63.100(j)(1) and 40 CFR 63.1250(d).
- B. New Source Performance Standards for Incinerators (40 CFR 60-Subpart E) is not applicable because the South Incinerator is not capable of firing more than 50 tons per day.

SECTION 3 - GENERAL CONDITIONS

This section describes terms and conditions applicable to this Title V facility.

- A. **General Provisions** [NCGS 143-215 and 15A NCAC 2Q .0508(i)(16)]
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(i)(9)(B)]
- 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)(2)]
- 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(e) and 2Q .0508(i)(16)]
- 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(i)(2)]

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 re-issuance, 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 in Ownership or Operation and Application Submittal Content [15A NCAC 2Q .0524 and 2Q .0505]

The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 2Q.0524 and 2Q .0505.

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. Reporting Requirements

Any of the following that would result in new or increased emissions from the emission source(s) listed in Section I must be reported to the Regional Supervisor, DAQ:

- a. changes in the information submitted in the application;
- b. changes that modify equipment or processes; or
- c. changes in the quantity or quality of materials processed.

If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

2. 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.

3. 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.

4. 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)(2)]

“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 this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

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 to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 2D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 2Q .0508(f)(2), the Permittee shall report deviations 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 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

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. 15A NCAC 2D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

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 .0508(e) and 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(i)(4)]

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(i)(9)]

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) and 2Q .0508 (l)]

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(n)]

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 March 1 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. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. 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 re-issuance 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(i)(8)]

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(l) 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(i)(10)]

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(i)(9)]

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(h)]

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(i)(1)]

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(c)]

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(i)(16)]

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 or to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2600 and follow the procedures outlined below:

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 description of the training and air testing experience of the person directing the test;
 - b. a certification of the test results by sampling team leader and facility representative;
 - c. 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);
 - d. 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;
 - e. all field, analytical, and calibration data necessary to verify that the testing was performed as specified in the applicable test methods;
 - f. example calculations for at least one test run using equations in the applicable test methods and all test results including intermediate parameter calculations; and
 - g. 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.

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 re-issuance, as appropriate.

LL. Reporting Requirements for Non-Operating Equipment [15A NCAC 2Q .0508(i)(16)]

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.

MM. Fugitive Dust Control Requirement [15A NCAC 2D .0540] - STATE ENFORCEABLE ONLY

As required by 15A NCAC 2D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 2D .0540(f). "Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

NN. Specific Permit Modifications [15A NCAC 2Q .0501 and .0523]

1. For modifications made pursuant to 15A NCAC 2Q .0501(c)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 2Q .0501(d)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 2Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth St., Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
 - a. a description of the change at the facility;
 - b. the date on which the change will occur;
 - c. any change in emissions; and
 - d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

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 |
| NESHAP | 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. |