

# North Carolina Department of Environmental Quality

| Permit No.    | Scan Date         | DIN   |
|---------------|-------------------|-------|
| 0102-INCIN-M- | November 18, 2015 | 25303 |

Pat McCrory  
Governor

Donald R. van der Vaart  
Secretary

RECEIVED  
**November 17, 2015**  
Solid Waste Section  
Asheville Regional Office

November 6, 2015

Mr. Alan Skrzypczak  
Facility Manager  
Stericycle, Inc.  
Post Office Box 310  
Haw River, North Carolina 27258

Dear Mr. Skrzypczak:

SUBJECT: Air Quality Permit No. 05896T24  
Facility ID: 04/01/00010  
Stericycle, Inc.  
Haw River  
Alamance County  
Fee Class: Title V

In accordance with your completed Air Quality Permit Application for modification and in accordance with 15A NCAC 02Q .0517 the NCDAQ moves to reopen for cause Air Quality Permit No. 05896T23 and herewith forwards Air Quality Permit No. 05896T24 to Stericycle, Inc. 1168 Porter Avenue, Haw River, 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.

Pursuant to NCGS 150B-23 and 15A N.C.A.C. 02Q .0308 a person aggrieved by the issuance of this Air Quality Permit has the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. Any such right of appeal is subject to the terms of the settlement agreement executed by you and the Division of Air Quality on November 6, 2015. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of 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

Mr. Alan Skrzypczak

November 6, 2015

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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.

The PSD minor baseline dates has been triggered for Alamance County, for PM<sub>10</sub> and SO<sub>2</sub> emissions, however this modification due to reopen for cause did not trigger any increment increase.

This Air Quality Permit shall be effective from November 6, 2015, until January 31, 2016, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Gautam Patnaik, at (919) 707-8735.

Sincerely,



William D. Willets, P.E., Chief, Permitting Section  
Division of Air Quality, NCDEQ

Enclosure

c: Winston-Salem Regional Office  
Heather Ceron, EPA Region 4  
Central Files

**Insignificant Activities under 15A NCAC 2Q .0503(8)**

| <b>Emission Source ID No.</b> | <b>Emission Source Description</b>   |
|-------------------------------|--|
| I-CT-1 and I-CT-2             | Two cooling towers (55,200 gallons per hour water recirculation rate each) |

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".
3. For additional information regarding the applicability of GACT see the DAQ page titled "The Regulatory Guide for Insignificant Activities/Permits Exempt Activities". The link to this site is as follows: <http://daq.state.nc.us/permits/insig/>

**Table of changes made in this permit.**

| Page(s)               | Section                                   | Description of Change(s)  |
|-----------------------|---|---|
| <b>HMIWI - UNIT 1</b> |   |   |
| 5                     | 2.1 A. 1. b. (1)                          | Changed maximum charge rate from 1,952.6 to 2,092.0 pounds per hour for Unit 1 (ID No. ES01)  |
| 5                     | 2.1 A. 1. b. (4) table particulate matter | Changed maximum charge rate from 1,952.6 to 2,092.0 pounds per hour and minimum pressure drop across venturi scrubber from 40.0 to 39.0 inches W.C. for Unit 1 (ID No. ES01)  |
| 6                     | 2.1 A. 1. b. (4) table CO emissions       | Changed maximum charge rate from 1,952.6 to 2,092.0 pounds per hour and minimum secondary chamber temperature from 1,795.5°F to 1,762.8°F for Unit 1 (ID No. ES01)  |
| 6                     | 2.1 A. 1. b. (4) table dioxin/furan       | Changed maximum charge rate of from 1,952.6 to 2,092.0 pounds per hour, minimum secondary chamber temperature from 1,795.5°F to 1,762.8°F and minimum venturi scrubber liquor flow rate from 65.8 to 65.2 gallons per minute for Unit 1 (ID No. ES01) |
| 6                     | 2.1 A. 1. b. (4) table HCL                | Changed maximum charge rate from 1,952.6 to 2,092.0 pounds per hour and minimum packed bed scrubber liquor from a pH of 4.15 to 4.10 for Unit 1 (ID No. ES01)   |
| 6                     | 2.1 A. 1. b. (4) table Mercury            | Changed maximum charge rate from 1,952.6 to 2,092.0 pounds per hour and maximum flue gas temperature from 133.7°F to 168.1°F for Unit 1 (ID No. ES01)   |
| 6                     | 2.1 A. 1. b. (4) table NO <sub>x</sub>    | Changed urea as a reagent with a minimum injection rate of 1.1 gallons per hour (gph), ammonia of 1.0 gph.  |
| <b>HMIWI - UNIT 2</b> |   |   |
| 5                     | 2.1 A. 1. b. (1)                          | Changed maximum charge rate from 2,091.9 to 2,093.1 pounds per hour Unit 2 (ID No. ES02).   |
| 6                     | 2.1 A. 1. b. (4) table particulate matter | Changed maximum charge rate from 2,091.9 to 2,093.1 pounds per hour and minimum pressure drop across the venturi scrubber from 40.1 to 38.9 inches W.C. for Unit 2 (ID No. ES02)  |
| 6                     | 2.1 A. 1. b. (4) table CO emissions       | Changed maximum charge rate from 2,091.9 to 2,093.1 pounds per hour and minimum secondary chamber temperature from 1,798.2°F to 1,759.5°F for Unit 2 (ID No. ES02)  |
| 6                     | 2.1 A. 1. b. (4) table dioxin/furan       | Changed maximum charge rate from 2,091.9 to 2,093.1 pounds per hour, minimum secondary chamber temperature from 1,798.2°F to 1,759.5°F and minimum venturi scrubber liquor flow rate from 66.0 to 66.7 gallons per minute for Unit 2 (ID No. ES02)    |
| 6                     | 2.1 A. 1. b. (4) table HCL                | Changed maximum charge rate from 2,091.9 to 2,093.1 pounds per hour and minimum packed bed scrubber liquor pH of 3.6 to 4.1 for Unit 2 (ID No. ES02)  |
| 6                     | 2.1 A. 1. b. (4) table Mercury            | Changed maximum charge rate from 2,091.9 to 2,093.1 pounds per hour and maximum flue gas temperature from 134.3°F to 164.1°F for Unit 2 (ID No. ES02)   |
| 6                     | 2.1 A. 1. b. (4) table NO <sub>x</sub>    | Changed urea as a reagent with a minimum injection rate of 1.2 gallons per hour (gph), ammonia of 1.0 gph.  |
| 6                     | 2.1 A. 1. b. (5)                          | Changed the proper operating temperature from 1,795.5 to 1,762.8 degrees Fahrenheit for the secondary chamber of Unit 1 and from 1,798.2 to 1,759.5 degrees Fahrenheit for the secondary chamber of Unit 2.   |

| Page(s) | Section                              | Description of Change(s)  |
|---------|--------------------------------------|---|
| 6       | 2.1 A. 1. b. (6)                     | No change in the residence time, but changed minimum temperature requirements from 1,795.5 to 1,762.8 degrees Fahrenheit in Unit 1 and from 1,798.2 to 1759.5 degrees Fahrenheit in Unit 2.   |
| 7       | 2.1 A. 1. b. (9) A.                  | <u>Venturi Scrubber Monitoring</u> - To demonstrate compliance with the PM <sub>10</sub> standard, the pressure drop across the venturi scrubbers are changed from 40.0 to 39.0 inches W.C. for Unit 1 and from 40.1 to 38.9 inches W.C. for Unit 2, and the charging rate changed from 1952.6 to 2,092.0 pounds per hour for Unit 1 and from 2,091.9 2,093.1 pounds per hour for Unit 2. |
| 7 & 8   | 2.1 A. 1. b. (10)                    | <u>NO<sub>x</sub> Emissions</u> - controlled by ammonia or urea as a reagent with a urea minimum injection rate of 1.1 gallons per hour (gph) and ammonia minimum injection rate of 1.0 gph for Unit 1 and urea minimum injection rate of 1.2 gph and ammonia minimum injection rate of 1.0 gph for Unit 2 in the selective non-catalytic reduction (SNCR) systems ID Nos. CD07 and CD08. |
| 16      | 2.2 A (Toxics emissions limit table) | The Manganese emission limit has been changed to 8.22 pounds per hour   |
| 16      | 2.2 A. 1.                            | Changed maximum charge rate from 1,952.6 to 2,092.0 pounds per hour for Unit 1 and from 2,091.9 to 2,093.1 pounds per hour Unit 2   |

**State of North Carolina  
Department of Environmental  
Quality**

**Division of Air Quality**

## AIR QUALITY PERMIT

| Permit No. | Replaces Permit No. | Effective Date   | Expiration Date  |
|------------|---------------------|------------------|------------------|
| 05896T24   | 05896T23            | November 6, 2015 | January 31, 2016 |

Until such time as this permit expires or is modified or revoked, the below named Permittee is authorized to operate as outlined in Part I and to construct as outlined in Part II, 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:** **Stericycle, Inc.**  
**Facility ID:** 0100010  
**Facility Site Location:** 1168 Porter Avenue  
**City, County, State, Zip:** Haw River, Alamance County, North Carolina 27258

**Mailing Address:** Post Office Box 310  
**City, State, Zip:** Haw River, North Carolina 27258  
**Application Number:** 0100010.15B  
**Complete Application Date:** September 8, 2015

**Primary SIC Code:** 4953  
**Division of Air Quality,  
Regional Office Address:** Winston-Salem Regional Office  
450 West Hanes Mill Road, Suite 300  
Winston-Salem, North Carolina 27105

Permit issued this the 6<sup>th</sup> day of November, 2015.



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William D. Willets, P.E., Chief, Permitting Section  
By Authority of the Environmental Management Commission

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(Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)
- 2.2- Multiple Emission Source(s) Specific Limitations and Conditions  
(Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)

SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENT

List of Acronyms

## 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:

| Page # | Emission Source ID No.           | Emission Source Description  | Control Device ID No.        | Control Device Description   |
|--------|----------------------------------|--|------------------------------|--|
| 3      | ES01                             | dual chamber hospital, medical and infectious waste incinerator (HMIWI) firing natural gas (4.6 million Btu/hr primary chamber burner and 6.0 million Btu/hr secondary chamber burner) | CD07<br>CD01<br>CD03<br>CD05 | one selective non-catalytic reduction (SNCR) system with ammonia or urea injection (19700 ACFM, outlet airflow rate)<br>one packed bed scrubber and associated quench column in series with venturi scrubber equipped with a mist eliminator<br>one sulfur impregnated carbon bed (6,000 ACFM, inlet airflow rate) |
| 4      | ES02                             | dual chamber hospital, medical and infectious waste incinerator (HMIWI) firing natural gas (4.6 million Btu/hr primary chamber burner and 6.0 million Btu/hr secondary chamber burner) | CD08<br>CD02<br>CD04<br>CD06 | one selective non-catalytic reduction (SNCR) system with ammonia or urea injection (19700 ACFM, outlet airflow rate)<br>one packed bed scrubber and associated quench column in series with venturi scrubber equipped with a mist eliminator<br>one sulfur impregnated carbon bed (6,000 ACFM, inlet airflow rate) |
| 13     | YEG1<br>MACT ZZZZ<br>NSPS<br>III | diesel-fired emergency generator (500 kW)  | N/A                          | N/A  |

<sup>Y</sup>The emergency generator rating of 500 kW (the engine is rated for 568 kW).

## SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

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

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

- A. - **Dual chamber hospital, medical and infectious waste incinerator (HMIWI) firing natural gas (4.6 million Btu/hr primary chamber burner and 6.0 million Btu/hr secondary chamber burner, ID No. ES01) controlled in series with one selective non-catalytic reduction (SNCR) system with ammonia or urea injection (19700 ACFM, outlet airflow rate, ID No. CD07) in series with one packed bed scrubber (ID No. CD01) in series with one venturi scrubber (ID No. CD03) equipped with mist eliminator in series with one sulfur impregnated carbon bed (6,000 ACFM, inlet airflow rate, ID No. CD05)**
- **Dual chamber hospital, medical and infectious waste incinerator (HMIWI) firing natural gas (4.6 million Btu/hr primary chamber burner and 6.0 million Btu/hr secondary chamber burner, ID No. ES02) controlled in series with one selective non-catalytic reduction (SNCR)**

system with ammonia or urea injection (19700 ACFM, outlet airflow rate, ID No. CD08) in series with one packed bed scrubber (ID No. CD02) in series with one venturi scrubber (ID No. CD04) equipped with mist eliminator in series with one sulfur impregnated carbon bed (6,000 ACFM, inlet airflow rate, ID No. CD06)

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

| Regulated Pollutant                                    | Limits/Standards  | Applicable Regulation |
|--|---|-----------------------|
| toxic air pollutants                                   | State-enforceable only - See Section 2.2 A.                     | 15A NCAC 2D .1100     |
| odorous emissions                                      | State-enforceable only - See Section 2.2 B.                     | 15A NCAC 2D .1806     |
| PM, SO <sub>2</sub> , NO <sub>x</sub> , CO, metal HAPs | Limits for Hospital, Medical, and Infectious Waste Incinerators | 15A NCAC 2D .1206     |
| -  | Federal Regulation  | NSPS Subpart HHH      |

## 1. EMISSION LIMITS

### State Only

#### a. 15A NCAC 02D .1206 Hospital, Medical, and Infectious Waste Incinerators

The following table summarizes emission limitations for these Hospital, Medical, Infectious Waste Incinerator (HMIWI) units as stipulated under Table 1B of emissions guidelines for NSPS Subpart Ce<sup>1</sup>.

| Pollutant              | Emission Limits*   |
|------------------------|--|
| Filterable Particulate | 25 milligrams per dry standard cubic meter (mg/dscm) Or<br>0.011 (grains per dry standard cubic foot (gr/dscf))  |
| Carbon monoxide        | 11 parts per million by volume (ppmv)  |
| Dioxins/furans         | 9.3 nanograms per dry standard cubic meter total dioxins/furans (ng/dscm)<br>Or<br>4.1 grains per billion dry standard cubic feet (gr/10 <sup>9</sup> dscf)<br>or<br>0.054 ng/dscm TEQ Or<br>0.024 gr/10 <sup>9</sup> dscf TEQ |
| Hydrogen chloride      | 6.6 parts per million by volume (ppmv)   |
| Sulfur dioxide         | 9.0 parts per million by volume (ppmv)   |
| Nitrogen dioxide       | 140 parts per million by volume (ppmv)   |
| Lead                   | 0.036 milligrams per dry standard cubic meter (mg/dscm) Or<br>0.016 grains per thousand dry standard cubic feet (gr/10 <sup>3</sup> dscf)  |
| Cadmium                | 0.0092 milligrams per dry standard cubic meter (mg/dscm) Or  |

<sup>1</sup> See Section 5., of the review for application # 0100010.13B

|         |  |
|---------|--|
|         | 0.0040 grains per thousand dry standard cubic feet (gr/10 <sup>3</sup> dscf)   |
| Mercury | 0.018 milligrams per dry standard cubic meter (mg/dscm) Or<br>0.0079 grains per thousand dry standard cubic feet (gr/10 <sup>3</sup> dscf) |
| Opacity | 6% opacity (6-minute block average)**  |

\*All limits are corrected to 7% oxygen on a dry standard basis.

\*\* As required by 15A NCAC 02D .1206(c)(6).

**b. Operational requirements for incinerators:** [NSPS Subpart Ec (40 CFR 60.56c and 60.57c), 15A NCAC 2D.1206(d), and 15A NCAC 2Q.0508(f)]

- (1) The Permittee shall not exceed a maximum charge rate of 2,092.0 pounds per hour for Unit 1 (ID No. ES01) and 2,093.1 pounds per hour for Unit 2 (ID No. ES02).
- (2) Except as provided in paragraph (3) below, simultaneous operation of the HMIWI above the maximum charge rate and below the minimum secondary chamber temperature, each measured on a 3-hour rolling average, shall constitute a violation of the particulate matter, carbon monoxide, and dioxin and furan emission limits.
- (3) Pursuant to 40 CFR Part 60.56c(d)(1), for a wet scrubber control system, the Permittee shall re-establish the appropriate maximum and minimum operating parameters as **site specific operating parameters** identified below every year based on performance testing to determine compliance with emission limits:
  - A. Maximum waste charge rate (pounds per hour);
  - B. Maximum flue gas temperature;
  - C. Minimum secondary chamber temperature;
  - D. Minimum pressure drop across the venturi scrubbers;
  - E. Minimum liquor flow rate to the venturi scrubbers;
  - F. Minimum liquor pH of the packed bed scrubbers; and
  - G. Bypass stack position.
  - H. NO<sub>x</sub> reagent.

The Permittee may revise these parameters based on approved performance tests pursuant to 40 CFR 60.56c(j). In order to revise the parameters, the Permittee shall make a written request to have the permit administratively amended that cites the parameters documented during the test and the calculation methods pursuant to 60.51c.

- (4) Following the date in which the annual performance test is approved and the permit is modified, the Permittee shall ensure that the affected facility does not operate above the maximum parameters or below the minimum parameters measured as 3 hour rolling averages (calculated each hour as the average of the previous 3 operating hours). Operation above the established maximum or below the established minimum shall constitute a violation of the applicable emissions standard as indicated in this permit except during start-up, shutdown, or malfunction.

Based on the most recent performance test and consistent with 60.56c(f)(1)-(6), 62.14455(d), and 2D .1206(d)(3), the tables below identify operating scenarios for each incinerator that define compliance with the pollutant emissions standards. The Permittee shall be deemed in noncompliance with the applicable emission standard if operation is noted outside of these ranges.

**HMIWI - UNIT 1**

| Pollutant Emission Limit Violation | Operating Scenario Defining Compliance   |
|------------------------------------|--|
| particulate matter                 | maximum charge rate of 2,092.0 pounds per hour and minimum pressure drop across venturi scrubber of 39.0 inches W.C. |

| Pollutant Emission Limit Violation                            | Operating Scenario Defining Compliance  |
|---|---|
| CO  | maximum charge rate of 2,092.0 pounds per hour and minimum secondary chamber temperature of 1,762.8°F   |
| dioxin/furan  | maximum charge rate of 2,092.0 pounds per hour, minimum secondary chamber temperature of 1,762.8°F and minimum venturi scrubber liquor flow rate of 65.2 gallons per minute |
| HCl   | maximum charge rate of 2,092.0 pounds per hour and minimum packed bed scrubber liquor pH of 4.10  |
| mercury   | maximum charge rate of 2,092.0 pounds per hour and maximum flue gas temperature of 168.1°F  |
| particulate matter, dioxin/furan, HCl, lead, cadmium, mercury | operation of bypass stack except during start-up, shutdown, or malfunction  |
| NO <sub>x</sub>   | urea as a reagent with a minimum injection rate of 1.1 gallons per hour (gph) and ammonia of 1.0 gph.   |

**HMIWI - UNIT 2**

| Pollutant Emission Limit Violation                            | Operating Scenario Defining Compliance   |
|---|--|
| particulate matter  | maximum charge rate of 2,093.1 pounds per hour and minimum pressure drop across the venturi scrubber of 38.9 inches W.C.   |
| CO  | maximum charge rate of 2,093.1 pounds per hour and minimum secondary chamber temperature of 1,759.5°F  |
| dioxin/furan  | maximum charge rate of 2,093.1 pounds per hour, minimum secondary chamber temperature of 1,59.5°F and minimum venturi scrubber liquor flow rate of 66.7 gallons per minute |
| HCl   | maximum charge rate of 2,093.1 pounds per hour and minimum packed bed scrubber liquor pH of 4.1  |
| mercury   | maximum charge rate of 2,093.1 pounds per hour and maximum flue gas temperature of 164.1°F   |
| particulate matter, dioxin/furan, HCl, lead, cadmium, mercury | operation of bypass stack except during start-up, shutdown, or malfunction   |
| NO <sub>x</sub>   | urea as a reagent with a minimum injection rate of 1.2 gallons per hour (gph) and ammonia of 1.0 gph.  |

- (5) The Permittee shall not charge any waste into the incinerators until the proper operating temperature of 1,762.8 degrees Fahrenheit is attained in the secondary chamber of Unit 1 and 1,759.5 degrees Fahrenheit is attained in the secondary chamber of Unit 2.
- (6) Gases generated by combustion shall, for a period of not less than one second, be subjected to a minimum temperature of 1,762.8 degrees Fahrenheit in Unit 1 and 1759.5 degrees Fahrenheit in Unit 2.
- (7) Incineration of wastes shall be limited to the following:
  - A. items and materials included in the definition of hospital, medical, and infectious waste contained in 40 CFR 60.51c;
  - B. international garbage (USDA/APHIS) defined as waste material derived in whole or in part from fruits, vegetables, meats, or other plant or animal material, and other refuse of any character whatsoever that has been associated with any such material aboard any means of conveyance and includes food scraps, table refuse, galley refuse, food wrappers, or packaging materials, and other waste material from stores, food preparation areas, passengers' or crews' quarters, dining rooms, or any other areas on vessels, aircraft, or other means of conveyance;
  - C. confidential documents generated in the health care industry,
  - D. controlled substances captured by law enforcement agencies;

- E. non-hazardous trace chemotherapeutic waste materials;
  - F. non-hazardous pharmaceuticals.
  - G. non-hazardous materials under Section 2.1. A. 1. b. (7). E., and F., refer to those substance that are not regulated under 15A NCAC 13A .0106.
- (8) Visible emissions from these HMIWIs shall not be more than 10 percent opacity when averaged over a six-minute period.
- A. Visible Emissions Monitoring [15A NCAC 2Q .0508(f)]  
To assure compliance, once a day the Permittee shall observe the emission points of each unit for any visible emissions above normal. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall be allowed three (3) days of absent observations per semi-annual period. If the emission sources is not operating, a record of this fact along with the corresponding date and time shall substitute for the daily observation. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) be deemed to be in noncompliance with 40 CFR 60.52c(b) and 15A NCAC 2D .1206(c)(3) or (b) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given above. If the demonstration in (b) above cannot be made, the Permittee shall be deemed to be in noncompliance with 40 CFR 60.52c(b) and 15A NCAC 2D .1206.
  - B. Visible Emissions Recordkeeping [15A NCAC 2Q .0508(f)]  
The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
    - i. the date and time of each recorded action;
    - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
    - iii. the results of any corrective actions performed.
 The Permittee shall be deemed in noncompliance with 40 CFR 52c(b) and 15A NCAC 2D .1206 if these records are not maintained.
- (9) Venturi Scrubber Requirements - Particulate matter emissions shall be controlled as described in the permitted equipment list.
- A. Venturi Scrubber Monitoring - In accordance with 40 CFR 60.57c(a), to demonstrate compliance with the PM<sub>10</sub> standard, the pressure drop across the venturi scrubbers shall not be less than 39.0 inches W.C. for Unit 1 and 38.9 inches W.C. for Unit 2, and the charging rate shall not exceed 2,092.0 pounds per hour for Unit 1 and 2,093.1 pounds per hour for Unit 2.
  - B. Venturi Scrubber Recordkeeping - The Permittee shall continuously monitor the pressure drop across the venturi scrubbers and the charging rate to each incinerator. The Permittee shall record, the pressure drop across each venturi scrubber (once per minute) and record the charging rate to each incinerator (once per hour). Records shall be maintained on-site and made available to DAQ personnel upon request. The Permittee shall be deemed in noncompliance with 40 CFR 57c(a) and 15A NCAC 2D .1206 if these measurements are not recorded as required.
- (10) NO<sub>x</sub> emissions from the incinerator shall be controlled by ammonia or urea as a reagent with a urea minimum injection rate of 1.1 gallons per hour (gph) and ammonia minimum injection rate of 1.0 gph for Unit 1 and urea minimum injection rate of 1.2 gph and ammonia minimum injection rate of 1.0 gph for Unit 2 in the selective non-catalytic reduction (SNCR) systems ID Nos. CD07 and CD08.
- (11) Carbon Bed Requirements:  
The affected carbon beds used for the control of mercury emissions from the HMIWIs shall be designed and operated with two beds in series, with the second bed serving as a guard bed. The Permittee shall, at a minimum:
- A. Replace each carbon bed or the carbon in each bed before it has reached the end of its useful life. For the replacement of carbon in the primary bed, the secondary bed will be rotated into the primary bed position and the new carbon will be used in the secondary bed position;

- B. Use the type of activated carbon used during the most recent performance test demonstrating compliance with the Hg emission limit until a subsequent performance test is conducted; and
- C. Substitute at any time a different brand of activated carbon provided that the replacement has equivalent or improved properties compared to the carbon used in the most recent performance test.
- D. The Permittee shall monitor the performance of the carbon beds in each affected carbon bed system as provided below to ensure that the carbon in each bed has not reached the end of its useful life to control mercury emissions to at least the level needed to comply with the limits of 40 CFR § Part 60, Subpart Ce:
  - i. Monitoring shall be conducted consistent with the manufacturer's written specifications and recommendations;
  - ii. The Permittee shall Document the monitoring procedures in the operating and maintenance procedures;
  - iii. The Permittee shall keep records of the performance monitoring;
  - iv. The maximum waste charge rate and the maximum flue gas temperature monitored at the inlet to the carbon bed system will be established during the initial performance test and will be continuously monitored thereafter;
  - v. Operation of a HMIWI above the maximum waste charge rate and above the maximum flue gas temperature at the inlet to the carbon bed system (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit; and
  - vi. The minimum data recording frequency for the maximum waste charge rate will be once per hour and for the maximum flue gas temperature at the inlet to the carbon bed system it will be once per minute.

Failure to follow any of the above mentioned procedures, testing, monitoring and record keeping activities, the Permittee shall be in violation of 40 CFR § Part 60, Subpart Ce and 15A NCAC 02D .1206.

**c. Test Methods and Procedures** [15A NCAC 2D .1206(d) and (e) and NSPS Subpart Ec (40 CFR 60.56c)]

- (1) The Permittee shall comply with the compliance and performance testing requirements of 40 CFR 60.56c, excluding the fugitive emissions testing requirements under 40 CFR 60.56c(b)(12) and (c)(3). Pursuant to 60.56c, the emission limits apply at all times except during periods of startup, shutdown or malfunction, provided that no hospital, medical, or infectious waste is charged to the incinerator during startup, shutdown, or malfunction.
- (2) The test methods and procedures described in Rule 15A NCAC 2D .0501 and in 40 CFR Part 60 Appendix A shall be used to determine compliance with emission rates according to the provisions of General Condition JJ. Method 29 of 40 CFR 60 shall be used to determine emission rates for metals. However, Method 29 shall be used to sample for chromium (VI), and SW 846 Method 0060 shall be used for analysis. For dioxin/furan testing purposes, a minimum sample time of 4 hours shall be used.
- (3) The Director may require the owner or operator to test his incinerator at any time to demonstrate compliance with the emission standards listed above.
- (4) Pursuant to 40 CFR 60.56c(h), the Permittee may conduct a repeat performance test within 30 days of violation of applicable operating parameters to demonstrate that the HMIWI is not in continual violation of the applicable emission limits. Repeat performance tests shall be conducted using identical operating parameters that demonstrated violation.

**d. Monitoring/Recordkeeping/Reporting** [15A NCAC 2D .1206(f)]

- (1) The Permittee shall comply with the monitoring, recordkeeping, and reporting requirements in Section 15A NCAC 2D .0600. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1206 if records are not maintained.

Pursuant to 15A NCAC 2D .0605, the Permittee shall maintain:

- A. records detailing all malfunctions under Rule 2D .0535,
- B. records of all testing, and
- C. records of all monitoring.

The owner or operator of a source of excess emissions which last for more than 4 hours and which results from a malfunction, a breakdown of process or control equipment, or any other abnormal conditions shall report excess emissions in accordance with the requirements of Rule 2D .0535.

- (2) Records indicating the hourly (beginning on the hour) charge rate to the incinerators shall be maintained and available for inspection by the Division of Air Quality.
- (3) The Permittee shall maintain and operate a continuous temperature monitoring and recording device for the primary chamber and secondary chamber of each unit. The owner or operator of an incinerator that has installed air pollution abatement equipment to reduce emissions of hydrogen chloride shall install, operate, and maintain continuous monitoring equipment to measure pH for each wet scrubber systems. The Permittee shall install, operate, and maintain continuous monitors for oxygen and for carbon monoxide to determine proper operation of the incinerators.

All monitoring devices and associated paraphernalia used to show compliance with emission limits, shall be subject to a quality assurance program to include procedures and frequency of calibration, standards traceability, operational checks, maintenance, auditing, data validation, and a schedule for implementing the quality assurance program. This program should be submitted and approved by the Regional Supervisor, North Carolina Division of Air Quality, Winston-Salem Regional Office, 450 W. Hanes Mill Road, Suite 300, Winston-Salem, North Carolina 27105, within 60 days of the initial operating date of the Title V permit.

e. **NSPS Monitoring/Recordkeeping/Reporting Requirements** [NSPS Subpart Ec (40 CFR 60.55c, 60.57c 60.58c)]

- (1) In addition to the requirements of 1. d. (1), (2), and (3) above, the Permittee shall comply with the reporting and recordkeeping requirements listed in 40 CFR 60.58c(b), (c), (d), (e), and (f), excluding 40 CFR 60.58c(b)(2)(ii) and (b)(7). The Permittee shall maintain the following information for a period of at least 5 years:
  - A. Calendar date of each record;
  - B. Records of the following data;
    - i. concentrations of any pollutant listed in Table in Section 2.1 A. 1. a., above,
    - ii. HMIWI charge dates, times and weights and hourly charge rates,
    - iii. secondary chamber temperature recorded as three hour rolling average,
    - iv. liquor flow rate to the venturi scrubbers' inlet recorded as three hour rolling average,
    - v. temperature at the outlet from the venturi scrubbers recorded as three hour rolling average,
    - vi. pH at the inlet to the packed bed scrubber systems recorded as three hour rolling average, and
    - vii. records indicating use of bypass stacks, including dates, times, and durations,
  - C. Identification of calendar days for which data on emission rates or operating parameters have not been obtained, with an identification of the emission rates or parameters not measured, reasons for not obtaining the data, and a description of corrective actions taken,
  - D. Identification of calendar days, times and durations of malfunctions, a description of the malfunction and the corrective action taken,
  - E. Identification of calendar days for which data of emission rates or operating parameters exceeded the applicable limits, with a description of the exceedances, reasons for such exceedances, and a description of the corrective actions taken,
  - F. Records showing the names of HMIWI operators who have completed review of information in 60.53c(h) including the date of the initial review and all subsequent annual reviews,
  - G. Records showing the names of HMIWI operators who have completed the operator training requirements, including documentation of training and dates of the training,
  - H. Records showing the names of HMIWI operators who have met the criteria for qualification under 60.53c and the dates of their qualifications,
  - I. Records of calibration of any monitoring devices as required under 60.57c(a),(b), and (c).
- (2) The Permittee shall submit the information below no later than 60 days following the initial performance test. All reports shall be signed by the facilities manager.

- A. The initial performance test data as recorded under 60.56c(b)(1) through (b)(12), as applicable,
  - B. The values for the site-specific operating parameters established pursuant to 60.56c, and
- (3) Following the initial report, the Permittee shall submit reports semi-annually signed by the facilities manager containing the following information:
- A. The values for the site-specific operating parameters established pursuant to 60.56c,
  - B. The highest maximum operating parameter and the lowest minimum operating parameter for each operating parameter recorded for the calendar year being reported and the preceding year,
  - C. If a performance test was conducted during the reporting period, the results of that test,
  - D. If no exceedances or malfunctions occurred for the calendar year, a statement that no exceedances occurred,
  - E. Any use of bypass stacks, the duration, reason for malfunction, and corrective action taken, and
  - F. Any information recorded under e(1)B above as electronic one-minute data for the calendar year being reported and the preceding year.

All records shall be maintained onsite in either paper copy or computer readable format, unless an alternative format is approved.

- (4) The Permittee shall submit annually a waste management plan including provisions for the segregation of dental waste for DAQ approval by no later than January 30th of each calendar year. The waste management plan shall comply with the requirements of 40 CFR 60.55c. The Permittee shall implement the DAQ approved waste management plan in its entirety. The Permittee shall not incinerate dental waste at the facility, which is defined in the DAQ approved waste management plan.

If the Permittee does not implement the DAQ approved waste management plan in its entirety or any dental waste is incinerated at the facility, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

Within 30 days of approval and receipt of the air permit 05896T18, the Permittee shall submit a draft waste management plan including language addressing the management of dental waste at the Haw River facility.

- (5) The Permittee shall comply with the monitoring requirements in 40 CFR 60.57c. Pursuant to 40 CFR 60.57c(a), the Permittee shall install, calibrate (to manufacturer's specification), maintain, and operate devices (or establish methods) for monitoring the applicable maximum and minimum operating parameters and the frequencies required such that these devices (or methods) measure and record values at all times except during periods of startup and shutdown.

Pursuant to 40 CFR 60.57c(b), the Permittee shall install, calibrate (to manufacturer's specification), maintain, and operate a device or method for measuring the use of the **bypass stack** including date, time, and duration.

Pursuant to 40 CFR 60.57c(d), the Permittee shall obtain monitoring data at all times during HMIWI operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the facility is combusting hospital waste and/or medical/infectious waste.

**f. Excess Emissions, Start-up and Shutdown [15A NCAC 2D .1206(g)]**

- (1) All incinerators shall comply with Rule 15A NCAC 2D .0535.

**g. Operator Training and Certification [15A NCAC 2D .1206(h) and NSPS Subpart Ec (40 CFR 60.53c)]**

- (1) The Permittee shall not allow the HMIWI to operate at any time unless a fully trained and qualified HMIWI operator is accessible, either at the facility or available within one hour. The trained and qualified HMIWI operator may operate the HMIWI directly or be the direct supervisor of one or more HMIWI operators.

Operator training shall be obtained by completing the requirements of 40 CFR 60.53c(c) through (g). Training shall be obtained by completing an HMIWI operator training course that includes, at a minimum, the following provisions:

- A. 24 hours of training on the following subjects;
    - i. environmental concerns, including pathogen destruction and types of emissions,
    - ii. basic combustion principles, including products of combustion,
    - iii. operation of the type of incinerator being used, including power startup, waste charging, and shutdown procedures,
    - iv. combustion controls and monitoring,
    - v. operation of air pollution control equipment and factors affecting performance,
    - vi. methods to monitor pollutants and equipment calibration procedures,
    - vii. inspection and maintenance of the HMIWI, and air pollution control devices,
    - viii. actions to correct malfunctions or conditions that may lead to malfunctions,
    - ix. ash characteristics and handling procedures,
    - x. applicable state, federal, and local regulations,
    - xi. work safety procedures,
    - xii. pre-start up inspections, and
    - xiii. recordkeeping requirements
  
  - B. Qualification shall be obtained by:
    - i. completion of a training course that satisfies the criteria mentioned above, and
    - ii. either 6 months experience as an HMIWI operator, 6 months experience as a direct supervisor of an HMIWI operator, or completion of at least two burn cycles under observation of two qualified HMIWI operators.
  
  - C. To maintain qualification, the trained and qualified HMIWI operator shall complete and pass an **annual** review or refresher course of at least 4 hours covering, at a minimum, the following:
    - i. update of regulations,
    - ii. incinerator operation, including startup and shutdown procedures,
    - iii. inspection and maintenance,
    - iv. responses to malfunctions or conditions that may lead to malfunction, and
    - v. discussion of operating problems encountered by attendees.
  
  - D. A lapsed qualification shall be renewed by one of the following methods:
    - i. for a lapse of less than 3 years, the HMIWI operator shall complete and pass a standard **annual** refresher course as outlined in c. above.
    - ii. for a lapse of more than 3 years, the HMIWI operator shall complete and pass a training course with the minimum criteria described in a. above.
- (2) Pursuant to 40 CFR 60.53c(h)(1) through (h)(10), the Permittee shall maintain documentation at the facility that addresses the following:
- A. summary of applicable standards;
  - B. description of basic combustion theory applicable to an HMIWI;
  - C. procedures for receiving, handling, and charging waste;
  - D. HMIWI start-up, shut-down, and malfunction procedures;
  - E. procedures for maintaining proper air supply levels;
  - F. procedures for operating the HMIWI and associated air pollution control systems within the standards established;
  - G. procedures for responding to periodic malfunction or conditions that may lead to malfunction;
  - H. procedures for monitoring HMIWI emissions;
  - I. reporting and recordkeeping procedures; and

J. procedures for handling ash.

The Permittee shall establish a program for reviewing the information documented above annually with each HMIWI operator. This information shall be kept in a readily accessible location for HMIWI operators.

**h. Carbon monoxide emissions monitoring [NSPS Subpart Ec Table 1A]**

To assure compliance, the Permittee shall have installed on the exhaust stack of each incinerators (ES01 and ES02) a carbon monoxide continuous emissions monitoring (CEM) system. The CEM shall be constructed, installed and operated in accordance with the following requirements:

- i. The CEM systems shall be installed, calibrated, maintained, tested, and operated in accordance with 40 CFR Part 60, Appendix B, Performance Specifications and Appendix F, Quality Assurance Procedures and any written manufacturers specifications or recommendations as approved by the Division in the Quality Assurance Plan (QAP).
  - ii. Compliance with the carbon monoxide emission standard shall be demonstrated based on a 12-hour rolling average, calculated each hour as the average of the previous 12 operating hours of the carbon monoxide exhaust gas concentration measured by the CEM systems. If any 12-hour rolling average exceeds 40 ppmv corrected to 7% oxygen on a dry standard basis, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.
  - iii. The Permittee shall submit any excess carbon monoxide emission reports as measured by the continuous emission monitor 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. If there are no excess emissions, the Permittee shall submit a report stating that no excess emissions occurred during the semiannual reporting period.
  - iv. The Permittee shall use this CEM as a means of demonstrating compliance for carbon monoxide emissions.
  - v. The Permittee shall have the CEM systems installed and operational by August 31, 2011. Failure to have the CEM installed and operational by this date, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.
- i. The Permittee shall comply with the emission guidelines to control emissions from existing hospital, medical, and infectious waste incinerators 40 CFR Part 60 Subpart Ce as published in the Federal Register / Vol. 74, No. 192 / Tuesday, October 6, 2009, by July 1, 2013.
  - j. The Permittee shall install sulfur impregnated carbon beds (ID Nos. CD05 and CD06) and selective non-catalytic reduction (SNCR) systems (ID Nos. CD07, and CD08) on dual chamber incinerators (ID Nos. ES01 and ES02) to comply by July 1, 2013, with the new emission limits of NSPS Subpart Ce, as per Section 2.1 A. 1. a., above.

The Permittee shall establish the appropriate maximum and minimum site specific operating parameters based on the initial performance test to be conducted no later than 180 days following the installation of the sulfur impregnated carbon beds (ID Nos. CD05 and CD06) and selective non-catalytic reduction (SNCR) systems (ID Nos. CD07, and CD08). Within 180 days of the initial performance test the Permittee shall submit an application to DAQ to re-establish operating parameters and calculation methods to demonstrate compliance. The Permittee shall be deemed in noncompliance with NSPS Subpart Ce for failure to meet any of the requirements on the dates outlined in this Section.

**Federal Regulation Only**

**2. NSPS Subpart HHH<sup>2</sup> [40 CFR § 62.14400]**

**The hospital, medical and infectious waste incinerator (HMIWI) (ID Nos. ES01 and ES02) are subject to NSPS Subpart HHH for “Federal Plan Requirements for Hospital/Medical/Infectious Waste Incinerators Constructed On/Or Before December 1, 2008.”**

**B. One diesel fuel-fired emergency generator (ID No. EG1) rated at 500 ekW (the engine is rated for 568 kW).**

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

<sup>2</sup> See Section 4., of the review for application # 0100010.13B

| Regulated Pollutant | Limits/Standards                      | Applicable Regulation |
|---------------------|---------------------------------------|-----------------------|
| sulfur dioxide      | 2.3 pounds per million Btu heat input | 15A NCAC 2D .516      |
| visible emissions   | 20 percent opacity                    | 15A NCAC 2D .521      |

#### 1. 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 02D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(4) and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 B. 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, or reporting is required for sulfur dioxide emissions from the firing of diesel fuel in this emergency generator.

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

- a. Visible emissions from the emergency generator 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 02D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 B. 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 from the firing of diesel fuel in this emergency generator.

#### 3. 15A NCAC 2D .1111 "MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY",

**Applicability** [40 CFR § 63.6585, 6590(a)(2)(iii)]

- a. Diesel fuel-fired emergency generator (ID No. EG1) (stationary RICE located at an area source of HAP emissions), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart ZZZZ, "National Emission Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines" and Subpart A "General Provisions."

**Stationary RICE subject to Regulations under 40 CFR Part 60** [15 A NCAC 2Q. 0508(f)]

- b. Pursuant to 40 CFR 63.6590(c)(1), this engine (ID No. EG1) must meet the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A by meeting the requirements of 40 CFR part 60 subpart IIII. No further requirements apply for this engine under 40 CFR 63 Subpart ZZZZ and Subpart A.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111., If the requirements in Section 2.1 B.

3. b., are not met,

#### 4. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS

**Applicability** [15A NCAC 2Q .0508(f), 40 CFR § 60.4200(a)(2)(i)]

- a. For this engine (ID No. EG1), 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, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines," including Subpart A "General Provisions."

**General Provisions** [15A NCAC 2Q .0508(f)]

- b. Pursuant to 40 CFR 60 .4218, The Permittee shall comply with the General Provisions of 40 CFR 60 Subpart A as presented in Table 8 of 40 CFR 60 Subpart IIII.

**Emission Standards**

- c. The Permittee shall comply with the following emission standards for the diesel fuel-fired emergency generator (ID No. EG1):  
(1) NMHC + NOx: 6.4 (g/kW-hr)  
(2) CO: 3.5 (g/kW-hr)  
(3) PM: 0.20 (g/kW-hr)

The exhaust opacity from the diesel fuel-fired emergency generator (ID No. EG1) must not exceed:

- (1) 20 percent during the acceleration mode;  
(2) 15 percent during the lugging mode; and  
(3) 50 percent during the peaks in either the acceleration or lugging modes."  
[40 CFR § 60.4205(b), 40 CFR §60.4202(a)(2), 40 CFR § 89.112(a), and 40 CFR § 89.113(a)]

**Fuel Requirements**

- d. The Permittee shall use diesel fuel with the following content:  
- Sulfur Content (for NR diesel fuel) = 15 ppm = 0.0015% weight,  
- Sulfur Content (for LM diesel fuel) = 500 ppm = 0.05% weight, and  
- Cetane index or aromatic content:  
Cetane index = 40 (minimum); OR Aromatic content = 35% volume (maximum)  
[40 CFR § 60.4207(b) and 40 CFR § 40 80.510(b)]

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

- e. 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 conditions c. and d., above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

**Initial Notification** [15A NCAC 2Q .0508(f)]

- f. None.  
[40 CFR §60.4214(b)]

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

- g. The engine has the following monitoring requirement:  
The engines shall be equipped with a non-resettable hour meter prior to startup. [40CFR 60.4209(a)]
- h. The Permittee shall:
- i. operate and maintain the engines and control devices according to the manufacturer's emission related-written instructions over the entire life of the engine;
  - ii. change only those emission-related settings that are permitted by the manufacturer; and
  - iii. meet the requirements of 40 CFR 89, 94 and/or 1068 as applicable.  
[40 CFR §60.4206, 40 CFR § 60.4209 and 40 CFR §60.4211(a)]

**Compliance Requirements** [15A NCAC 2Q .0508(b)]

- i. The Permittee shall comply with the emission standards in condition c. by purchasing an engine certified to the emission standards in condition c for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's emission-related specifications. [40 CFR § 60.4211(c)]

- j. In order for the engine to be considered an emergency stationary ICE under this condition, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described below, is prohibited. [40 CFR §60. 4211(f)]
- (1) There is no time limit on the use of emergency stationary ICE in emergency situations. [40 CFR §60. 4211(f)(1)]
  - (2) The Permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraphs j(2)(i) through (iii) of this condition for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (j)(3) of this condition counts as part of the 100 hours per calendar year allowed by this paragraph (j)(2). [40 CFR §60. 4211(f)(2)]
    - (i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator 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 owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [40 CFR §60. 4211(f)(2)(i)]
    - (ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [40 CFR §60. 4211(f)(2)(ii)]
    - (iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [40 CFR §60. 4211(f)(2)(iii)]
  - (3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (j)(2) of this condition. Except as provided in paragraph (j)(3)(i) of this condition, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR §60. 4211(f)(3)]
    - (i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [40 CFR §60. 4211(f)(3)(i)]
      - (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [40 CFR §60. 4211(f)(3)(i)(A)]
      - (B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [40 CFR §60. 4211(f)(3)(i)(B)]
      - (C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [40 CFR §60. 4211(f)(3)(i)(C)]
      - (D) The power is provided only to the facility itself or to support the local transmission and distribution system. [40 CFR §60. 4211(f)(3)(i)(D)]
      - (E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator. [40 CFR §60. 4211(f)(3)(i)(E)]

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the above requirements are not met.

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

- k. To assure compliance, the Permittee shall perform inspections and maintenance on the engine as recommended by the manufacturer per 40 CFR § 60.4206 and 40 CFR § 60.4211(a). The following records shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request:
- i. the hours of operation of the engine in emergency and non-emergency service, and the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR § 60.4214(b)]

- ii. if a PM filter is used, records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached [40 CFR § 60.4214(c)]; and
- vii. documentation from the manufacturer that the engine is certified to meet the emission standards in condition c. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

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

- 1. 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 noncompliance with the requirements of this permit shall be clearly identified.

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

**STATE ENFORCEABLE ONLY**

**A. 15A NCAC 2D .1100: TOXIC AIR POLLUTANT EMISSIONS LIMITATION AND REPORTING REQUIREMENT**

The emission limits in the table below represent total emissions from both incinerators combined. Pursuant to 15A NCAC 2D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following permit limits shall not be exceeded:

| EMISSION SOURCES                     | TOXIC AIR POLLUTANTS        | EMISSION LIMITS                            |
|--------------------------------------|-----------------------------|--|
| Incinerators (ID Nos. ES01 and ES02) | Chromium VI                 | 0.964 pounds per year                      |
|                                      | Arsenic                     | 2.673 pounds per year                      |
|                                      | Cadmium                     | 63.91 pounds per year                      |
|                                      | Hydrogen Chloride           | 2.2 pounds per hour                        |
|                                      | Hexachlorodibenzo-P-dioxin  | 0.8831 pounds per year                     |
|                                      | Tetrachlorodibenzo-P-dioxin | 0.0349 pounds per year                     |
|                                      | Mercury                     | 3.82 pounds per day                        |
|                                      | Chlorine                    | 24.00 pounds per day; 1.00 pounds per hour |
|                                      | Beryllium                   | 47.64 pounds per year                      |
|                                      | Nickel                      | 12.00 pounds per day                       |
|                                      | Manganese                   | 8.22 pounds per hour                       |
|                                      | Hydrogen Fluoride           | 24.00 pounds per day; 1.00 pounds per hour |

- 1. To ensure compliance with the above limits, the following restrictions shall apply:
  - a. The charge rate into incinerator the (ID No. ESO1) shall not exceed 2092.0 pounds per hour.
  - b. The charge rate into incinerator the (ID No. ESO2) shall not exceed 2093.1 pounds per hour.
- 2. The incinerators' stack height shall be a minimum of 82.4 feet above ground level.
- 3. The Permittee shall maintain records or any other process operational information as is necessary to determine compliance with 15A NCAC 2D .1100. All records of compliance shall be maintained in a log (in written or electronic format) and made available for inspection by personnel of the Division of Air Quality.

4. i. The Permittee shall test one of the two incinerators (to be selected by DAQ prior to the testing date) once every twenty-four to twenty-six consecutive months to demonstrate compliance with 15A NCAC 2D .0408, .0521, and .1100 for the following pollutants: lead, visible emissions, arsenic, beryllium, cadmium, chlorine, chromium VI, hexachlorodibenzo-p-dioxin, tetrachlorodibenzo-p-dioxin, hydrogen chloride, hydrogen fluoride, manganese, and nickel.
- ii. The Permittee shall test one of the two incinerators (to be selected by DAQ prior to the testing date) once each calendar year quarter to demonstrate compliance with 15A NCAC 2D .1100 for mercury. If four consecutive quarterly performance tests indicate compliance with the mercury emission limit, the Permittee may conduct performance tests semi-annually. If two consecutive semi-annual performance tests indicate compliance with the mercury emission limit, the Permittee may then conduct performance tests annually. Testing will go back to quarterly whenever a stack test is failed. If the facility resumes quarterly performance tests, the same relaxation schedule mentioned above can go into effect.
- iii. The Permittee shall double the emissions from one of the two incinerators (tested) once every twenty-four to twenty-six consecutive months to demonstrate compliance with 15A NCAC 2D .1100, for the purposes of comparing the emissions to the facility wide limits in 2.2 A., above.

For each stack test conducted as required by this Section, the company shall track and record details for the waste being burned and the material that may be carried over into the stack test period. Tracking shall include at a minimum, a cross reference of the identity of the waste generator with the company's customer list, the type of business waste, the total weight of each container, and the time the material entered the incinerator. The identity information shall include the nature of the business activity. This information will be summarized and submitted as part of the stack test report. Additional tracking information may be required by the Regional Air Quality Supervisor.

5. In order to minimize bypass event duration and emissions, the Permittee shall:
  - a. Install an uninterruptible power supply (UPS) for the control system to eliminate any "Reboot" time associated with the programmable logic controllers (PLCs).
  - b. Install a power outage indicator as an input to the PLCs.
  - c. Revise the PLC logic to require automatic re-closure of the bypass stack **within 5 minutes** after a power failure.
  - d. Install a low level switch on the emergency generator diesel tank.
  - e. Install a pressure switch to the water supply to alert operators to a loss of water supply.
  - f. Operate devices to assure continuous removal of the ash from the primary chamber.
  - g. Reduce combustion air to the primary chamber by alternately shutting the fan off and on in 1 minute cycles to achieve a net reduction in airflow of 50% during the bypass event.

#### **STATE ENFORCEABLE ONLY**

- B. 1. Venturi Scrubber Requirements - Particulate matter emissions from the incinerators shall be controlled as described in the permitted equipment list. The inspection, maintenance and recordkeeping requirements shall become effective upon the effective date of the permit.
  - a. Inspection and Maintenance Requirements - To comply with the provisions of this permit and ensure that emissions do not exceed the regulatory limits, the Permittee shall perform periodic inspections and maintenance (I&M) as recommended by the manufacturer. In addition, the Permittee shall perform an annual internal inspection of the scrubber systems.
  - b. Recordkeeping Requirements - The results of all inspections and any variance from manufacturer's recommendations or from those given in this permit (when applicable) shall be investigated with corrections made and dates of actions recorded in a log (in written or electronic form). Records of all inspection and maintenance activities shall be recorded in the log. The log shall be kept on-site and made available to DAQ personnel upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1206(f) and 2D .0600 if records are not maintained.
2. Packed Bed Scrubber Requirements - Gaseous emissions shall be controlled as described in the permitted equipment list. The monitoring, inspection, maintenance and record keeping requirements shall become effective upon the effective date of the permit.

The Permittee shall monitor and record the temperature at the outlet of the packed bed scrubbers and pressure drop across the packed bed scrubbers once per shift.

- a. Inspection and Maintenance Requirements - To comply with the provisions of this permit and ensure that emissions do not exceed the regulatory limits, the Permittee shall perform periodic inspections and maintenance as recommended by the manufacturer. In addition, the Permittee shall perform an annual internal inspection of the scrubber systems.

As a minimum, the annual internal inspection will include inspection of spray nozzles, packing material, chemical feed system (if so equipped), and the cleaning/calibration of all associated instrumentation annually.

- b. Recordkeeping Requirements - The results of all inspections and any variance from manufacturer's recommendations or from those given in this permit (when applicable) shall be investigated with corrections made and dates of actions recorded in a log (in written or electronic form). Records of all inspection and maintenance activities shall be recorded in the log. The log shall be kept on-site and made available to DAQ personnel upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1206(f) and 2D .0600 if records are not maintained.

**C. All emission sources**

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

| Regulated Pollutant | Limits/Standards  | Applicable Regulation                       |
|---------------------|---|---|
| odors               | odorous emissions must be controlled; <b>State-enforceable only</b> | 15A NCAC 2D .1806<br>15A NCAC 2D 1206(c)(7) |

**STATE ENFORCEABLE ONLY**

**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.

## **SECTION 3 - GENERAL CONDITIONS (version 3.7 09/21/2015)**

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 Environmental Quality 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

All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).

E. **Duty to Comply** [15A NCAC 2Q .0508(i)(3)]

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY

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

G. **Permit Modifications**

1. Administrative Permit Amendments [15A NCAC 2Q .0514]  
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 2Q .0514.
2. Transfer 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 1 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 15A NCAC 2Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 2Q .0500 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 15A NCAC 2Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 2Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 2Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 2Q .0400 requirements. In either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have 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 SW, 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 reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

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

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

U. **Property Rights** [15A NCAC 2Q .0508(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 Environmental Quality. 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)(4)]

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 .0202]**

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)]**

Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .0912, .1110, .1111, or .1415 of Subchapter 2D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.

4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
  - a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
    - (1) Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
    - (2) Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
    - (3) Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
  - b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 2D .2600 has precedence over all other tests.

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

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

**LL. Reporting Requirements for Non-Operating Equipment** [15A NCAC 2Q .0508(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 Street SW, 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.

OO. **Third Party Participation and EPA Review** [15A NCAC 2Q .0521, .0522 and .0525(7)]

For permits modifications subject to 45-day review by the federal Environmental Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 2Q .0518 begins at the end of the 45-day EPA review period.

## ATTACHMENT

### List of Acronyms

|                        |  |
|------------------------|--|
| <b>AOS</b>             | Alternate Operating Scenario   |
| <b>BACT</b>            | Best Available Control Technology  |
| <b>Btu</b>             | British thermal unit   |
| <b>CEM</b>             | Continuous Emission Monitor  |
| <b>CFR</b>             | Code of Federal Regulations  |
| <b>CAA</b>             | Clean Air Act  |
| <b>CAIR</b>            | Clean Air Interstate Rule  |
| <b>DAQ</b>             | Division of Air Quality  |
| <b>DEQ</b>             | Department of Environmental Quality  |
| <b>EMC</b>             | Environmental Management Commission  |
| <b>EPA</b>             | Environmental Protection Agency  |
| <b>FR</b>              | Federal Register   |
| <b>GACT</b>            | Generally Available Control Technology   |
| <b>HAP</b>             | Hazardous Air Pollutant  |
| <b>MACT</b>            | Maximum Achievable Control Technology  |
| <b>NAA</b>             | Non-Attainment Area  |
| <b>NCAC</b>            | North Carolina Administrative Code   |
| <b>NCGS</b>            | North Carolina General Statutes  |
| <b>NESHAPS</b>         | National Emission Standards for Hazardous Air Pollutants                       |
| <b>NO<sub>x</sub></b>  | Nitrogen Oxides  |
| <b>NSPS</b>            | New Source Performance Standard  |
| <b>OAH</b>             | Office of Administrative Hearings  |
| <b>PM</b>              | Particulate Matter   |
| <b>PM<sub>10</sub></b> | Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less |
| <b>POS</b>             | Primary Operating Scenario   |
| <b>PSD</b>             | Prevention of Significant Deterioration  |
| <b>RACT</b>            | Reasonably Available Control Technology  |
| <b>SIC</b>             | Standard Industrial Classification   |
| <b>SIP</b>             | State Implementation Plan  |
| <b>SO<sub>2</sub></b>  | Sulfur Dioxide   |
| <b>tpy</b>             | Tons Per Year  |
| <b>VOC</b>             | Volatile Organic Compound  |