



NORTH CAROLINA  
Environmental Quality

ROY COOPER  
Governor

DIONNE DELLI-GATTI  
Secretary

MICHAEL ABRACZINSKAS  
Director

DRAFT

Mr. Rick Roper, General Manager III  
Marshall Steam Station  
Duke Energy Carolinas, LLC  
8320 East NC Highway 150  
Terrell, NC 28682

SUBJECT: Air Quality Permit No. 03676T58  
Facility ID: 1800073  
Duke Energy Carolinas, LLC - Marshall Steam Station  
Terrell, North Carolina  
Catawba County  
Fee Class: Title V  
PSD Class: Major

Dear Mr. Roper:

In accordance with your completed Air Quality Permit Applications for a 501(b)(2) Part II significant modification of a Title V permit received March 6, 2020, we are forwarding herewith Air Quality Permit No. 03676T58 to Duke Energy Carolinas, LLC- Marshall Steam Station, 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 02Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

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

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with, both, the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.



North Carolina Department of Environmental Quality | Division of Air Quality  
217 West Jones Street | 1641 Mail Service Center | Raleigh, North Carolina 27699-1641  
919.707.8400

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 NCGS 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 NCGS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

Catawba County has triggered increment tracking under PSD for PM-10. However, any increment changes associated with this modification were addressed in the Part 1 permit application (No. 1800073.18A).

This Air Quality Permit shall be effective from DRAFT until July 31, 2022, 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 Connie J. Horne at (919) 707-8722 or [Connie.Horne@ncdenr.gov](mailto:Connie.Horne@ncdenr.gov).

Sincerely yours,

Mark J. Cuilla, EIT, CPM, Acting Chief, Permitting Section  
Division of Air Quality, NCDEQ

Enclosure

c: Michael Sparks, EPA Region 4 (Permit and Review)  
Mooresville Regional Office  
Central Files

**ATTACHMENT**  
**Duke Energy Carolinas LLC**  
**Marshal Steam Station**  
**Insignificant Activities under 15A NCAC 02Q .0503(8)**

Emission Source ID No.	Emission Source Description
I-3	Non-stack emissions of hydrazine and ammonia from throughout the plant (blow down vents, overpressure vents, de-aerator vents, valve leakage, purge vents, etc.) Condensate and feed water systems have potential for fugitive emissions of hydrazine and ammonia from boiler blow down systems, de-aerating feed water heater venting, and steam jet air ejectors.
I-7	500,000 gallon above ground main No. 2 fuel-oil storage tank and associated unloading stations, contract awarded on tank in 1973
I-7.1	500,000 gallon above ground main No. 2 fuel-oil storage tank and associated unloading stations, contract awarded on tank in 1973 (empty: permanently closed and tagged out in 2003)
I-8	30,000 gallon fuel oil storage tank at coal handling area
I-9	500 gallon capacity lube oil storage tank at coal handling tractor shed
I-9.1	750 gallon capacity lube oil storage tank at coal handling tractor shed
I-9.2	1000 gallon capacity lube oil storage tank at coal handling tractor shed
I-10	400 gallon lube oil storage tank for car dumper
I-11	75 gallon storage tank for coal handling knuckle boom
I-12	1000 gallon above ground gasoline storage tank
I-13	550 gallon above ground gasoline storage tank (Mosquito Control Facility)
I-18	6,100 gallon turbine cooling oil reservoir for Units 1& 2
I.18.1	6,100 gallon turbine cooling oil reservoir for Units 1& 2
I-19	8,150 gallon turbine cooling oil reservoir for Units 3 & 4
I-19.1	8,150 gallon turbine cooling oil reservoir for Units 3 & 4
I-20	10,000 gallon turbine oil storage tank used for maintenance on Unit 1
I-20.1	10,000 gallon turbine oil storage tank used for maintenance on Unit 2
I-21	12,000 gallon turbine oil storage tank used for maintenance on Units 3 & 4
I-24	Lube Oil Dispensary (approximately 480 gallons)
I-26	3000 gallon sulfuric acid (H <sub>2</sub> SO <sub>4</sub> ) storage tanks
I-27	46 gallon demineralizer sulfuric acid day tank for Units 1 & 2
I-29	330 gallon sulfuric acid tank
I-30	133 gallon hydrazine day tank
I-33	133 gallon ammonia hydroxide day tank
I-33.1	133 gallon ammonia hydroxide day tank
I-39	150 ton capacity sulfur storage tank
I-71	Emergency wet gypsum storage pile
I-72	Gypsum storage/disposal pile
I-75	Two solvent based parts washers
I-84	1600 gallon above ground diesel fuel oil storage tank (Emergency Generator)
I-85	190 gallon above ground diesel fuel oil storage tank (Emer. Air Compressor)
I-86	Limestone reclaim belt calibration/backup emergency use limestone reclaim using front end loader

Emission Source ID No.	Emission Source Description
I-93	220 gallon oil storage tank in Coal Handling Tractor Shed
I-100	36 inches wide gypsum collecting conveyor
I-101	30 inches wide gypsum transfer conveyor no. 1
I-102	30 inches wide gypsum transfer conveyor no. 2
I-103	30 inches wide gypsum transfer conveyor no. 3
I-104	30 inches wide gypsum disposal conveyor
I-105	30 inches wide gypsum radial stack-out conveyor
I-106	Generator, 35 kW, LP gas-fired
I-107	1,000 gallon LP gas above ground storage tank
I-127	100 gallon above ground diesel fuel oil storage tank (Emergency Quench Pump)
I-129	150 gallon above ground diesel fuel oil storage tank (Emergency Landfill Generator)
I-136	Coal pile dust suppressant application
I-137 NSPS MACT	Landfill 200 kW diesel emergency generator
I-138	Wastewater treatment facility hydrochloric acid storage tank (10,000 gallon capacity)
I-139	Flyash transfer filter separator A for Units 1 & 2
I-140	Flyash transfer filter separator A for Unit 3
I-141	Flyash transfer filter separator A for Unit 4
I-142	Flyash transfer filter separator B for Unit 3 (35 tons per hour maximum process rate)
I-143	Flyash transfer filter separator B for Unit 4 (35 tons per hour maximum process rate)
I-144	Flyash transfer filter separator B for Units 1 & 2
I-145	Flyash transfer filter separator C for Unit 3
I-146	Flyash transfer filter separator C for Unit 4
I-147	400 gallon diesel fuel oil storage tank (Landfill 200 kW diesel emergency generator)

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the Permittee 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 02D .1100 "Control of Toxic Air Pollutants" or 02Q .0711 "Emission Rates Requiring a Permit".
3. For additional information regarding the applicability of MACT or GACT see the DAQ page titled "Specific Permit Conditions Regulatory Guide". The link to this site is as follows: <http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide>.

## Summary of Changes to Permit

The following changes were made to the Duke Energy Carolinas LLC – Marshall Steam Station Air Permit No. 03676T57:

Page No.	Section	Description of Change(s)
All	---	Modified to reflect current permit number, issue and effective dates
46	2.1 K 3	Removed “15A NCAC 02Q .0504: OPTION FOR OBTAINING CONSTRUCTION AND OPERATION PERMIT”. This requirement was satisfied with application 1800073.20A received March 6, 2020.
64-73	Section 3	Updated General Conditions to Version 5.5 (8/25/2020)



## AIR QUALITY PERMIT

Permit No.	Replaces Permit No.	Effective Date	Expiration Date
03676T58	03676T57	DRAFT	July 31, 2022

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, 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:** **Duke Energy Carolinas LLC**  
**Marshall Steam Station**

**Facility ID:** **1800073**

**Facility Site Location:** **8320 East NC Highway 150**  
**City, County, State, Zip:** **Terrell, Catawba County, NC 28682**

**Mailing Address:** **8320 East NC Highway 150**  
**City, State, Zip:** **Terrell, Catawba County, NC 28682**

**Application Number:** **1800073.20A**  
**Complete Application Date:** **March 19, 2020**

**Primary SIC Code:** **4911**  
**Division of Air Quality,**  
**Regional Office Address:**  **Mooresville Regional Office**  
**610 East Center Avenue, Suite 301**  
**Mooresville, NC 28115**

Permit issued this the XXrd day of DRAFT, 2021

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Mark J. Cuilla, EIT, CPM, Acting Chief, Air Permitting Section  
By Authority of the Environmental Management Commission

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(Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)
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- Phase II NOx Compliance Plan dated June 23, 2015
- Phase II NOx Averaging Plan dated June 23, 2015

## 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 No.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
7, 58, 60, 62	ES-1 CAM MACT UUUUU	<p>One No. 2 fuel oil/natural gas/coal-fired** electric utility boiler (4,230 million Btu per hour heat input) equipped with a low NOx concentric firing system, separated overfire air/lowered fired low-NOx technologies (SOFA/LOFIR), and alkaline-based fuel additive (7 lb/ton of coal maximum usage rate)</p> <p>Unit 1</p>	<p>CD-1c (U1SNCR)</p> <p>CD-2</p> <p>CD-3</p> <p>CD-U1/2FGD</p>	<p>Selective non-catalytic reduction (SNCR) NOx reduction system*</p> <p>One flue gas conditioning system consisting of an integral sulfur trioxide ash conditioner*</p> <p>One cold-side electrostatic precipitator (267,720 square feet of plate area)***</p> <p>Wet flue gas desulfurization system consisting of spray tower absorber (approximately 165 gal/min limestone slurry injection rate)***</p> <p>None of the mercury control devices or techniques shall use halogen containing compounds (for example, bromide)</p>
7, 58, 60, 62	ES-2 CAM MACT UUUUU	<p>One No. 2 fuel oil/natural gas/coal-fired** electric utility boiler (4,230 million Btu per hour heat input) equipped with a low NOx concentric firing system, separated overfire air/lowered fired low-NOx technologies (SOFA/LOFIR), and alkaline-based fuel additive (7 lb/ton of coal maximum usage rate)</p> <p>Unit 2</p>	<p>CD-4c (U2SNCR)</p> <p>CD-5</p> <p>CD-6</p> <p>CD-U1/2FGD</p>	<p>Selective non-catalytic reduction (SNCR) NOx reduction system*</p> <p>One flue gas conditioning system consisting of an integral sulfur trioxide ash conditioner*</p> <p>One cold-side electrostatic precipitator (267,720 square feet of plate area)***</p> <p>Wet flue gas desulfurization system consisting of spray tower absorber (approximately 165 gal/min limestone slurry injection rate)***</p> <p>None of the mercury control devices or techniques shall use halogen containing compounds (for example, bromide)</p>



Page No.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
7, 58, 60, 62	ES-3 CAM MACT UUUUU	One No. 2 fuel oil/natural gas/coal-fired** electric utility boiler (7,110 million Btu per hour heat input) equipped with a low NOx concentric firing system, separated overfire air/lowered fired low-NOx technologies (SOFA/LOFIR), and alkaline-based fuel additive (7 lb/ton of coal maximum usage rate)  Unit 3	CD-7c (SCR)  CD-9 (ESPnew)  CD-U3FGD	Selective catalytic reduction (SCR) NOx reduction system*  One cold-side electrostatic precipitator (768,108 square feet of plate area)***  Wet flue gas desulfurization system consisting of spray tower absorber (approximately 165 gal/min limestone slurry injection rate)***  None of the mercury control devices or techniques shall use halogen containing compounds (for example, bromide)
7, 58, 60, 62	ES-4 CAM MACT UUUUU	One No. 2 fuel oil/natural gas/coal-fired** electric utility boiler (7,110 million Btu per hour heat input) equipped with a low NOx concentric firing system, separated overfire air/lowered fired low-NOx technologies (SOFA/LOFIR), and alkaline-based fuel additive (7 lb/ton of coal maximum usage rate)  Unit 4	CD-11c (U4SNCR)  CD-12  CD-U4ActC  CD-13 (ESPnew)  CD-U4FGD	Selective non-catalytic reduction (SNCR) NOx reduction system*  One flue gas conditioning system consisting of an integral sulfur trioxide ash conditioner*  System for injecting powdered activated carbon  One cold-side electrostatic precipitator (768,108 feet of plate area)***  Wet flue gas desulfurization system consisting of spray tower absorber (approximately 165 gal/min limestone slurry injection rate)***  None of the mercury control devices or techniques shall use halogen containing compounds (for example, bromide)
27, 52, 53	ES-6 (RUL)	One limestone train unloading facility	CD-RULBF	One pulse jet baghouse (4:1 to 5:1 gas-to-cloth ratio)
27, 52, 53	ES-6a (RULa) and ES-6b (RULb) NSPS OOO	Two limestone rail unloading hoppers		
27, 52, 53	ES-7 (LUBFA) NSPS OOO	60 inches wide limestone unloading belt feeder no. A		
27, 52, 53	ES-8 (LUBFB) NSPS OOO	60 inches wide limestone unloading belt feeder no. B		
27, 52, 54	ES-9 (LCB1) NSPS OOO	One 48 inches wide limestone unloading conveyor	N/A	N/A
27, 52, 54	ES-11 (LCB2) NSPS OOO	One 48 inches wide limestone stack out conveyor	N/A	N/A
32, 52, 54	F1	One limestone storage pile	N/A	N/A

Page No.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
27, 52, 54	ES-12a (LPR) <b>NSPS OOO</b>	40 inches wide limestone reclaim grate feeder (400 tons per hour maximum capacity)	N/A	N/A
27, 52, 54	ES-12b (LCB3) <b>NSPS OOO</b>	30 inches wide limestone reclaim conveyor (400 tons per hour maximum capacity)	N/A	N/A
27, 52, 54	ES-14 (LCB4) <b>NSPS OOO</b>	30 inches wide limestone plant feed conveyor no. 1	N/A	N/A
27, 52, 54	ES-16 (LCB5) <b>NSPS OOO</b>	30 inches wide limestone plant feed conveyor no. 2	N/A	N/A
27, 52, 55	ES-18a (LCB6a) <b>NSPS OOO</b>	30 inches wide limestone plant feed conveyor no. 3	N/A	N/A
27, 52, 55	ES-18b (ELBE) <b>NSPS OOO</b>	One emergency limestone bucket elevator (300 tons/hr maximum process rate)	CD-LPTTBF	One pulse jet baghouse (4:1 to 5:1 gas-to-cloth ratio)
27, 52, 55	ES-18c (LCB6c) <b>NSPS OOO</b>	36 inches wide emergency limestone feeder conveyor	N/A	N/A
27, 52, 55	ES-20 (S1LCB7) <b>NSPS OOO</b>	30 inches wide limestone silo fill conveyor no. 1	CD-LPTTBF	One pulse jet baghouse (4:1 to 5:1 gas-to-cloth ratio)
27, 52, 55	ES-21 (S2LCB8) <b>NSPS OOO</b>	30 inches wide limestone silo fill conveyor no. 2	CD-LPTTBF	One pulse jet baghouse (4:1 to 5:1 gas-to-cloth ratio)
27, 52, 55	ES-22 (LS1) <b>NSPS OOO</b>	Limestone storage silo no. 1 (400 tons/hr maximum process rate)	CD-LPTTBF	One pulse jet baghouse (4:1 to 5:1 gas-to-cloth ratio)
27, 52, 55	ES-23 (LS2) <b>NSPS OOO</b>	Limestone storage silo no. 2 (400 tons/hr maximum process rate)	CD-LPTTBF	One pulse jet baghouse (4:1 to 5:1 gas-to-cloth ratio)
27, 52	ES-24 (BM1) <b>NSPS OOO</b>	Limestone wet ball mill no. 1 (58 tons/hr maximum process rate)	N/A	N/A
27, 52	ES-25 (BM2) <b>NSPS OOO</b>	Limestone wet ball mill no. 2 (58 tons/hr maximum process rate)	N/A	N/A
31	ES-26 (EQWP) <b>MACT ZZZZ</b>	One 1,000 HP, No. 2 fuel oil-fired emergency use water pump	N/A	N/A
33, 55	ES-S1 ES-S2	Two ash storage silos (220 tons/hr maximum process rate each)	CD-S1 CD-S2	Two pulse jet baghouses (2.2 gas-to-cloth ratio each)
33, 55	ES-FTLD1 ES-FTLD2	Two (dry) flyash truck loading equipment (420 tons/hr maximum process rate each)	CD-S1 CD-S2	Two pulse jet baghouses (2.2 gas-to-cloth ratio each)
33, 55	ES-FTLW1 ES-FTLW2	Two (wet) flyash truck loading equipment (350 tons/hr maximum process rate each)	N/A	N/A
35, 55	ES-CCONV2 ES-CCONV6 ES-CCONV7 ES-CCONV8 <b>NSPS Y</b>	Four covered coal conveyors (2800 tons per hour rated capacity each)	N/A	N/A
36	ES-35 (EmGen) <b>MACT ZZZZ</b>	One No. 2 fuel oil-fired emergency/blackout protection diesel generator (2000 kW)	None	N/A

Page No.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
36	ES-36 (AC) <b>MACT ZZZZ</b>	One No. 2 fuel oil-fired diesel emergency air compressor (525 hp)	None	N/A
38, 56	ES-TSU3&4	Flyash transfer silo, Unit 3 & 4 (140 tons per hour maximum process rate)	CD-TSVF	Bagfilter (661 square feet of filter area)
40	ES-37 (EmGenLF) <b>NSPS III MACT ZZZZ</b>	One 100 kW No. 2 Fuel Oil-Fired Emergency Generator Located at Landfill	None	N/A
43	ES-U4ACISilo	MS4 DSI ACI storage silo (6000 cubic feet capacity)	CD-U4ACISiloBf	ACI storage silo bin vent filter baghouse (259 square feet of filter area)
56	ES-WWTFBR	wastewater treatment facility (bio-reactor)	NA	NA
45, 56	ES-WWTF Silo	wastewater treatment facility lime storage silo (5,600 cubic feet capacity)	CD-WWTF-Silo-BF	bin vent filter (295.2 square feet of filter area)
47, 58	ES-HTR1+ ES-HTR2+ ES-HTR3+ <b>MACT DDDD</b>	Three natural gas-fired, natural gas supply line heaters, rated at 7 million Btu per hour, each	N/A	N/A
50, 56, 58	ES-PIGGING+	Natural gas supply line pigging operation including fugitive emissions from pig receiver vent and temporary flaring of natural gas from supply line	CD-PIG FLARE+	Temporary flare system used to combust excess natural gas from supply line during pigging operation (1,989 million Btu per hour maximum rated natural gas heat input).
51, 56, 58	ES-COALFUG+	Coal pile and coal handling	N/A	N/A
51,56, 58	ES-ASHLFFUG+	Ash landfills and ash handling	N/A	N/A

\* The sulfur trioxide ash conditioning and NOx control systems may be operated independently of each other or in combination. Each system may be operated intermittently as necessary, based on boiler system requirements, to maintain compliance with applicable emission standards.

\*\* Incidental spills of oil, antifreeze, etc. that might get on the coal from mobile equipment is allowed to be burned in these boilers.

\*\*\* While operating on only natural gas, the electrostatic precipitator and the FGD may be operated intermittently as necessary, based on boiler system requirements, to maintain compliance with applicable emission standards.

+ These emission sources (ID Nos. ES-HTR1, ES-HTR2, ES-HTR3, ES-PIGGING, ES-COALFUG and ES-ASHLFFUG) and control device (ID No. CD-PIG FLARE) are listed as a 15A NCAC 02Q .0501(b)(2) modification. The Permittee shall file a Title V Air Quality Permit Application on or before 12 months after commencing operation in accordance with General Condition NN.1. The permit shield described in General Condition R does not apply and compliance certification as described in General Condition P is not required.

## **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. One No. 2 fuel oil/natural gas/coal-fired electric utility boiler equipped with a low NO<sub>x</sub> concentric firing system, separated overfire air/lowered fired low-NO<sub>x</sub> technologies (SOFA/LOFIR), and alkaline-based fuel additive (ID No. ES-1) and associated selective non-catalytic reduction system (SNCR) NO<sub>x</sub> reduction system (ID No. CD-1c (U1SNCR)), sulfur trioxide flue gas conditioning system (ID No. CD-2), electrostatic precipitator (ID No. CD-3), and wet flue gas desulfurization system consisting of spray tower absorber (ID No. CD-U1/2FGD)**

**One No. 2 fuel oil/natural gas/coal-fired electric utility boiler equipped with a low NO<sub>x</sub> concentric firing system, separated overfire air/lowered fired low-NO<sub>x</sub> technologies (SOFA/LOFIR), and alkaline-based fuel additive (ID No. ES-2) and associated selective non-catalytic reduction system (SNCR) NO<sub>x</sub> reduction system (ID No. CD-4c (U2SNCR)), sulfur trioxide flue gas conditioning system (ID No. CD-5), electrostatic precipitator (ID No. CD-6), and wet flue gas desulfurization system consisting of spray tower absorber (ID No. CD-U1/2FGD)**

**One No. 2 fuel oil/natural gas/coal-fired electric utility boiler equipped with a low NO<sub>x</sub> concentric firing system, separated overfire air/lowered fired low-NO<sub>x</sub> technologies (SOFA/LOFIR), and alkaline-based fuel additive (ID No. ES-3) and associated selective catalytic reduction system (SCR) NO<sub>x</sub> reduction system (ID No. CD-7c (SCR)), electrostatic precipitator (ID No. CD-9 (ESPnew)), and wet flue gas desulfurization system consisting of spray tower absorber (ID No. CD-U3FGD)**

**One No. 2 fuel oil/natural gas/coal-fired electric utility boiler equipped with a low NO<sub>x</sub> concentric firing system, separated overfire air/lowered fired low-NO<sub>x</sub> technologies (SOFA/LOFIR), and alkaline-based fuel additive (ID No. ES-4) and associated selective non-catalytic reduction system (SNCR) NO<sub>x</sub> reduction system (ID No. CD-11c (U4SNCR)), sulfur trioxide flue gas conditioning system (ID No. CD-12), powdered activated carbon system (ID No. CD-U4ActC), electrostatic precipitator (ID No. CD-13 (ESPnew)), and wet flue gas desulfurization system consisting of spray tower absorber (ID No. CD-U4FGD)**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Sulfur Dioxide	0.56 pounds per million Btu heat input	15A NCAC 02D .0501(c)
	Phase II Acid Rain Permit Requirements (see Section 2.4)	15A NCAC 02Q .0402 (40 CFR Part 72)
	<b><u>Federally Enforceable Only</u></b> Cross State Air Pollution Rule (CSAPR) Requirements	40 CFR Part 97
Nitrogen Oxides	<b>When burning only coal</b> 1.8 pounds per million Btu heat input	15A NCAC 02D .0519
	<b>When burning only oil or gas</b> 0.8 pounds per million Btu heat input	
	<b>When burning coal and oil and/or gas</b>  $E = [(Ec)(Qc) + (Eo)(Qo)]/Qt$  Where: E = emission limit in pounds per million Btu heat input Ec = 1.8 pounds per million Btu heat input for coal only Eo = 0.8 pounds per million Btu heat input for oil and/or gas Qc = coal heat input in Btu per hour Qo = oil heat input in Btu per hour Qt = Qc + Qo	
	Phase II Acid Rain Permit Requirements See Section 2.4	
	<b><u>Federally Enforceable Only</u></b> Cross State Air Pollution Rule (CSAPR) Requirements	
Visible Emissions	40 percent opacity when averaged over a six-minute period with exceptions See Section 2.1 A.3	15A NCAC 02D .0521
	<b><u>State Enforceable Only requirement</u></b> 20 percent annual average opacity	15A NCAC 02D .0536
Particulate Matter	<b>As determined by stack test:</b> Units 1 and 2 Boilers - 0.20 pounds per million Btu heat input each Units 3 and 4 Boilers - 0.18 pounds per million Btu heat input each  <b>As determined by PM CEMS:</b> Units 1 and 2 Boilers as a combined stack (CS1), Unit 3 Boiler, and Unit 4 Boiler - 0.030 pounds per million Btu heat input (or 0.30 pounds per MWh)	15A NCAC 02D .0536
	<b>For periods when the compliance option under Section 2.1 A.3.a.i [COMS] is used:</b> Monitoring for ESP control device See Section 2.1 A.12	15A NCAC 02D .0614 CAM (40 CFR 64)
Malfunction Abatement Plan	As defined in specific conditions	15A NCAC 02D .0535
Excess Emissions/Good Operations and Maintenance Practices	As defined in specific conditions	15A NCAC 02D .0606
PM/PM10	See Section 2.1 A.14	15A NCAC 02Q .0317 (PSD Avoidance)

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM2.5	See Section 2.1 A.15	15A NCAC 02Q .0317 (NA NSR Avoidance)
HAPs	See Section 2.1 A.9	15A NCAC 02D .1111 (40 CFR 63 Subpart UUUUU)
Various	See Section 2.1.A.17	15A NCAC 02D .0530(u)
-	See Section 2.2.C.1	15A NCAC 02Q .0504

#### 1. 15A NCAC 02D .0501(c): COMPLIANCE WITH EMISSION CONTROL STANDARDS

- a. In addition to any control or manner of operation necessary to meet emission standards in 15A NCAC 02D .0500, 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 of 15A NCAC 02D .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 15A NCAC 02D .0500 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. [15A NCAC 02D .0501(c)]
- b. Emissions of sulfur dioxide from these sources shall not exceed 0.56 pounds per million Btu heat input in accordance with the permit application of September 22, 2003 and modeling analysis of October 29, 2003. 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 02D .0501(c) and 02D .0608 (State Enforceable Only requirement)]

##### **Testing** [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.1.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0501(c).

##### **Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f) and 02D .0608 (State-Enforceable Only requirement)]

- d. The Permittee shall ensure compliance with 15A NCAC 02D .0501(c) by determining sulfur dioxide emissions in pounds per million Btu using a continuous emissions monitoring (CEM) system meeting the requirements of 40 CFR Part 75 except that unbiased values may be used (missing data shall be filled in accordance with 40 CFR Part 75 whenever the unit combusts any fuel). Compliance with sulfur dioxide emission standards shall be determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values (missing data shall be filled in accordance with 40 CFR Part 75) shall be summed, and the sum shall be divided by 24. The minimum number of data points, equally spaced, required to determine a valid hour value shall be determined by 40 CFR Part 75. If any 24-hour block average exceeds the limit in either Section 2.1 A.1.b above, or records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0501(c).

##### **Reporting** [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the continuous emissions monitoring data showing the 24-hour daily block values in pounds per million Btu for each 24-hour daily block averaging period during the reporting period postmarked on or before January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. All instances of deviations from the requirements of this permit must be clearly identified.
- f. **CEM's Monitor Availability** - The Permittee shall submit sulfur dioxide CEM systems monitor downtime reports, including monitor availability values (as calculated for 40 CFR Part 75) for the last hour of the reporting period, postmarked on or before January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September.

## 2. 15A NCAC 02D .0519: CONTROL OF NITROGEN OXIDES EMISSIONS

- a. Emissions of nitrogen oxides from these sources shall not exceed:
  - i. 1.8 pounds per million Btu heat input when burning only coal;
  - ii. 0.8 pounds per million Btu heat input when burning only oil/or gas;
  - iii. the emission limit calculated by the following equation when burning a combination of coal and oil:

$$E = [(Ec)(Qc) + (Eo)(Qo)]/Qt$$

Where: E = emission limit for combined burning of coal and oil/or gas in pounds per million Btu heat input  
Ec = 1.8 pounds per million Btu heat input for coal  
Eo = 0.8 pounds per million Btu heat input for oil and/or gas  
Qc = actual coal heat input in Btu per hour  
Qo = actual oil heat input in Btu per hour  
Qt = Qc + Qo

### Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0519.

### Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. The Permittee shall ensure compliance with 15A NCAC 02D .0519 by determining nitrogen oxide emissions in pounds per million Btu using a continuous emissions monitoring (CEM) system meeting the requirements of 40 CFR Part 75 except that unbiased values may be used (missing data shall be filled in accordance with 40 CFR Part 75 whenever the unit combusts any fuel). Compliance with this emission standard shall be determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values (missing data shall be filled in accordance with 40 CFR Part 75) shall be summed, and the sum shall be divided by 24. The minimum number of data points, equally spaced, required to determine a valid hour value shall be determined by 40 CFR Part 75. If any 24-hour block average exceeds the emission limit, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0519.
- d. The Permittee shall maintain records of monthly coal and oil consumption (written or electronic form) and shall submit such records within 30 days of a request by DAQ. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0519 if these records are not maintained.

### Reporting [15A NCAC 02Q .508(f)]

- e. The Permittee shall submit the continuous emissions monitoring system data showing the 24-hour daily block values for periods of **excess nitrogen oxide emissions** 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 no excess emissions were measured during a six-month period, the Permittee shall submit a summary report stating that there were no excess emissions for the period. All instances of deviations from the requirements of this permit must be clearly identified.
- f. **CEM's Monitor Availability** - The Permittee shall submit the nitrogen oxide CEM systems monitor downtime reports, including monitor availability values (as calculated for 40 CFR Part 75) for the last hour of the reporting period, 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.

### 3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. The Permittee shall either:
- install, maintain, and operate a COMS for measuring the opacity of emissions, or
  - install, maintain, and operate a PM CEMS.
- The Permittee shall submit a written notification to the NCDAQ of intent to demonstrate compliance using the option under Section 2.1 A3.a.i [COMS] or Section 2.1 A.3.a.ii [PM CEMS] at least 30 calendar days before changing the compliance monitoring option.**
- b. **For periods when the compliance option under Section 2.1 A.3.a.i [COMS] is used**, compliance with the **40 percent opacity** limit shall be determined as follows: [15A NCAC 02D .0521(g)]
- No more than four six-minute periods shall exceed the opacity standard in any one day; and
  - The percent of excess emissions (defined as the percentage of monitored operating time in a calendar quarter above the opacity limit) shall not exceed 0.8 percent of the total operating hours. If a source operates less than 500 hours during a calendar quarter, the percent of excess emissions shall be calculated by including hours operated immediately previous to this quarter until 500 operational hours are obtained.
- Excess emissions during startup and shutdown shall be excluded from the determinations in paragraphs b.i and b.ii above, if the excess emissions are exempted according to the procedures set out in 02D .0535(g). Excess emissions during malfunctions shall be excluded from the determinations in paragraphs b.i and b.ii above, if the excess emissions are exempted according to the procedures set out in 02D .0535(c).
- All periods of excess emissions shall be included in the determinations in paragraphs b.i and b.ii above until such time that the excess emissions are exempted according to the procedures in 02D .0535.
- c. **For periods when the compliance option under Section 2.1 A.3.a.ii [PM CEMS] is used**, visible emissions shall not be more than **40 percent opacity** when averaged over a six-minute period except that six-minute periods averaging not more than 90 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period. [15A NCAC 02D .0521(c)]

#### Testing [15A NCAC 02D .2601]

- d. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 02D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 A.3.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

#### Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- e. **For periods when the compliance option under Section 2.1 A.3.a.i [COMS] is used**, opacity shall be measured using an opacity monitoring system that meets the performance specifications of Appendix B of 40 CFR Part 60. The opacity monitoring system shall be subjected to a quality assurance program approved by the director. The Permittee, for each unit subject to 02D .0521(g) shall have on file with the director an approved quality assurance program, and shall submit to the director within the time period of his request for his approval a revised quality assurance program, including at least procedures and frequencies for calibration, standards traceability, operational checks, maintenance, auditing, data validation, and a schedule for implementing the quality assurance program. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if the monitoring is not performed, if the monitored values exceed the limitations given above, or if the records are not maintained.
- f. **For periods when the compliance option under Section 2.1 A.3.a.ii [PM CEMS] is used**, no monitoring is required.

#### Reporting [15A NCAC 02Q .0508(f)]

- g. **For periods when the compliance option under Section 2.1 A.3.a.i [COMS] is used**, the Permittee shall submit excess emissions and monitoring system performance reports for the COMS data in accordance with the reporting requirements given in Section 2.1 A.7.d no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. The report shall include, at a minimum, the information required in 40 CFR 60.7(c) and shall include all six-minute periods of excess emissions including all six-minute periods exempted during startup, shutdown and malfunction.
- h. **For periods when the compliance option under Section 2.1 A.3.a.ii [PM CEMS] is used**, no reporting is required.
- i. All instances of deviations from the requirements of this permit must be clearly identified.



#### 4. 15A NCAC 02D .0536: PARTICULATE EMISSIONS FROM ELECTRIC UTILITY BOILERS

- a. Emissions of particulate matter from these sources shall not exceed the following: [15A NCAC 02D .0536(b)]

Units 1 and 2 Boilers - 0.20 pounds per million Btu heat input  
Units 3 and 4 Boilers - 0.18 pounds per million Btu heat input

- b. The Permittee shall obtain an air permit before installing or enabling Energy Management System (EMS) capability.

**Testing** [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 A.4.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0536.

**Monitoring** [15A NCAC 02Q .0508(f)]

- d. A stack test shall be conducted for particulate matter in accordance with either Method 5 at a sample temperature of  $320^{\circ} \pm 25^{\circ}$  F as described in §63.10010(i)(1) or Method 5B of Appendix A of 40 CFR Part 60 once per calendar year. In the event that a boiler exceeds 80 percent of its particulate emission limit during the stack test, the Permittee shall schedule and conduct another stack test within 6 months. Upon demonstration that the source is operating under 80 percent of its particulate limit, as shown by three consecutive semiannual stack tests, the source may resume annual stack tests. If the result of any test is greater than the limits given in Section 2.1 A.4.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0536.
- e. **For periods when the compliance option under Section 2.1 A.3.a.i [COMS] is used**, compliance with the particulate limit in Section 2.1.A.4.a shall be demonstrated through the Compliance Assurance Monitoring (CAM) Plan given in Section 2.1.A.12. The Permittee shall ensure the continuous opacity monitor system (COMS) utilized in the CAM Plan meets the requirements of 15A NCAC 02D .0613. If the result of any stack test is greater than the limit given in Section 2.1 A.4.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0536.
- f. **For periods when the compliance option under Section 2.1 A.3.a.ii [PM CEMS] is used**, compliance with the particulate limit in Section 2.1.A.4.a shall be demonstrated using the PM CEMS. A measured exceedance of the pounds per million Btu heat input values below shall be a violation of the corresponding emission standards in Section 2.1.A.4.a.

Units 1 and 2 Boilers as CS01 - 0.030 pounds per million Btu heat input (30-boiler operating day rolling average) or 0.30 pounds per MWh (30-boiler operating day rolling average)  
Unit 3 Boiler - 0.030 pounds per million Btu heat input (30-boiler operating day rolling average) or 0.30 pounds per MWh (30-boiler operating day rolling average)  
Unit 4 Boiler - 0.030 pounds per million Btu heat input (30-boiler operating day rolling average) or 0.30 pounds per MWh (30-boiler operating day rolling average)

- i. The Permittee shall install, certify, operate, and maintain a PM CEMS and record the output of the PM CEMS according to the applicable Maximum Achievable Control Technology (MACT) standards in §63.10010(i) of 40 CFR Part 63 Subpart UUUUU, as specified in Section 2.1.A.16.ff. The PM CEMS shall meet the requirements of Performance Specification PS-11 of Appendix B of 40 CFR Part 60. The Permittee shall have on file with the director an approved quality assurance program, and shall submit to the director within the time period of his request for his approval a revised quality assurance program to include the provisions of 40 CFR 60, Appendix F, Procedure 2 for the PM CEMS.
- ii. The PM emission rate shall be determined based on a 30-boiler operating day rolling average of the hourly arithmetic average emissions concentrations using the CEMS outlet data for each boiler operating day (as defined below), except for data obtained during periods of startup or shutdown. Periods of malfunction shall be included in the emissions calculations.

*A boiler operating day means a 24-hour period that begins at midnight and ends the following midnight during which any fuel is combusted at any time in the EGU, excluding startup periods or shutdown periods. It is not necessary for the fuel to be combusted the entire 24-hour period.*

- iii. Data from the PM CEMS shall be reduced to 1-hour averages computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities pursuant to provisions of 40 CFR Part 63 are being performed. During these periods, a valid hourly average shall consist of at least two data points with each representing a 15-minute period. Alternatively, an arithmetic or

integrated 1-hour average of CEMS data may be used. Time periods for averaging are defined in §63.2. [§63.8(g)(2)]

- iv. PM CEMS monitor availability shall be calculated and reported.
- v. The Permittee shall record the output of the PM CEMS as specified in Section 2.1.A.16.hh.

If the results of the arithmetic 30-boiler operating day rolling average PM CEMS concentration exceeds the limit in this section or any of the above requirements are not met, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0536.

- g. The collected flyash shall not be reinjected into the electric utility boilers (ID Nos. ES-1 through ES-4). If the collected flyash is reinjected into these boilers, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0536.

**Reporting** [15A NCAC 02Q .0508(f)]

- h. **For periods when the compliance option under Section 2.1 A.3.a.i [COMS] is used**, the Permittee shall submit the results of all monitoring performed in Section 2.1.A.4.e above within 30 days of a written request by the DAQ.
- i. **For periods when the compliance option under Section 2.1 A.3.a.ii [PM CEMS] is used**, the Permittee shall submit excess emissions and monitoring system performance reports for PM in accordance with the reporting requirements given in Section 2.1.A.7.d no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. The compliance report shall include, at a minimum, the information required in 40 CFR 63.10 and contain the information specified in Section 2.1 A.16.xx, along with all 30-boiler operating day rolling average excess emissions (pounds per million Btu or pounds per MWh) using the CEMS outlet data, including periods exempted during periods of startup and shutdown.
- j. The results of any stack test shall be reported within 30 days, and the test report shall be submitted within 60 days after the test.
- k. All instances of excess emissions must be clearly identified.

**STATE-ONLY REQUIREMENT**

**5. 15A NCAC 02D .0536: ANNUAL AVERAGE OPACITY FOR ELECTRIC UTILITY BOILERS**

- a. Visible emissions from the utility boiler units shall not exceed 20 percent annual average opacity. The average is the sum of the measured non-overlapping six-minute averages of opacity determined only while the unit is in operation divided by the number of such measured non-overlapping six-minute averages. Start-up, shutdown, and non-operating time shall not be included in the annual average opacity calculation, but malfunction time shall be included. [15A NCAC 02D .0536(b)]
  - i. Visible emissions monitoring when using the COMS or PM CEMS compliance options shall not be required whenever the FGD system for the Units 1 and 2 combined stack (CD-1/2FGD) (and main stack COMS or PM CEMS) are bypassed and emissions exit the bypass (original) stacks. Bypass periods exempted from visible emission monitoring are restricted to malfunction events arising from a sudden failure of the scrubber system or boiler air and flue gas handling systems. Periods where there was no visible emission monitoring shall be included in percentage of monitor downtime (MD) calculation in Section 2.1 A.7.a for the COMS compliance option or Section 2.1.A.7.b for the PM CEMS compliance option.
- b. **For periods when the compliance option under Section 2.1 A.3.a.i [COMS] is used**, the Permittee shall calculate each day an annual average opacity value for the most recent 365-day period ending with the end of the previous day. The average is the sum of the measured non-overlapping six-minute averages of opacity determined only while the unit is in operation divided by the number of such measured non-overlapping six-minute averages. Start-up, shut-down, and non-operating time shall not be included in the annual average opacity calculation, but malfunction time shall be included.
- c. **For periods when the compliance option under Section 2.1 A.3.a.ii [PM CEMS] is used**, the Permittee shall calculate each day an annual average opacity value for the most recent 365-day period ending with the end of the previous day. The average is the sum of the measured non-overlapping one-hour averages of opacity determined only while the unit is in operation divided by the number of such measured non-overlapping one-hour averages. Start-up, shut-down, and non-operating time shall not be included in the annual average opacity calculation, but malfunction time shall be included. The hourly opacity values shall be determined using the PM CEMS hourly average output values as follows:

$$\text{Opacity, average for each hour} = \frac{(\text{Actual PM CEMS Output, average for each hour})(Z, \text{Opacity})}{(Y, \text{mg} / \text{m}^3)}$$

where: Y = The average PM CEMS output value (mg/m<sup>3</sup>) established during the initial PM CEMS PS-11 certification procedure at or near, but no greater than, the AAO limit. A concurrent Method 9 test shall be conducted during the PM CEMS measurements to determine opacity. At least 60 minutes of PM CEMS and Method 9 data shall be averaged.

Z = The average concurrent Method 9 opacity readings obtained during the initial PM CEMS PS-11 certification procedure corresponding to the PM CEMS measurements for Y above.

The ratio of Z/Y has been determined from the initial CEMS certification testing to be as follows:

Units 1 and 2 Boilers as CS 01	0.49 % opacity/mg/m <sup>3</sup>
Unit 3 Boiler	0.77 % opacity/mg/m <sup>3</sup>
Unit 4 Boiler	0.44 % opacity/mg/m <sup>3</sup>

- d. **For periods of less than 365 days of operation using either option under Section 2.1 A.3.a.i [COMS] or Section 2.1 A.3.a.ii [PM CEMS]**, the AAO shall be calculated as follows:

$$\text{AAO} = \frac{\sum_{i=1}^Z (6 \text{ minute COMS block } i) + \left( \sum_{j=1}^Y (1 \text{ hour PM CEMS block } j) \right) (10 \text{ six - minute blocks} / 1 \text{ hour block})}{Z + 10Y}$$

where: Z = number of six-minute COM blocks of data within 365-day look-back period.  
 Y = number of one-hour PM CEMS blocks of data within 365-day look-back period.

Notes: The 1 hour PM CEMS block in the AAO equation above is its equivalent 1-hour block opacity as determined from the opacity equation in Section 2.1.A.5.c above. Variables Y and Z have different meanings in the two equations as defined above.

Alternatively, the Permittee may calculate the AAO using valid certified 1 hour PM CEMS blocks of data for the entire 365-day look-back period in the above equation for both the period when using PM CEMS for compliance with the AAO standard (after the 30-day notification) and for the period when using COMS for compliance with the AAO standard (instead of 6 minute COMS blocks).

**Recordkeeping/Reporting** [15A NCAC 02D .0536]

- e. **For periods when the compliance option under Section 2.1 A.3.a.i [COMS] is used**, the Permittee shall submit a report by the 30th day following the end of each month showing, for each day of the previous month, the calculated annual average opacity of each unit and the annual average opacity limit.
- f. **For periods when the compliance option under Section 2.1 A.3.a.ii [PM CEMS] is used**, the Permittee shall submit a report showing the calculated annual average opacity of each unit and the annual average opacity limit for each day during the reporting period no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. All instances of deviations from the requirements of this permit must be clearly identified.

**6. 15A NCAC 02D .0535: EXCESS EMISSIONS REPORTING AND MALFUNCTIONS**

- a. All electric utility boiler units shall have a malfunction abatement plan approved by the Director as specified in 15A NCAC 02D .0535(d).

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

- b. The Permittee shall maintain logbooks to show that the operation and maintenance parts of the malfunction abatement plan are implemented. These logbooks (written or electronic form) shall be subject to inspection by DAQ personnel upon request during business hours. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0535 if the records are not maintained.

**7. 15A NCAC 02D .0606: SOURCES COVERED BY APPENDIX P OF 40 CFR PART 51 (CONTINUOUS SULFUR DIOXIDE MONITORING, OPACITY MONITORING AND EXCESS EMISSIONS)\***

\* Changes to Sections 2.1.A.7.b and d are listed as a minor modification per 15A NCAC 02Q .0515. The compliance certification as described in General Condition P is required. Unless otherwise notified by NC DAQ, the affected terms of this permit (excluding the permit shield as described General Condition R) for Sections 2.1.A.7.b and d shall become final on October 21, 2017. Until this date, the affected permit terms herein reflect the proposed operating language that the Permittee shall operate this source under pursuant to 15A NCAC 02Q .0515(f).

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

- a. **For periods when the compliance option under Section 2.1 A.3.a.i [COMS] is used**, the Permittee shall use a continuous opacity monitoring system (COMS) to monitor and record opacity. Continuous monitoring and recordkeeping of opacity shall be performed as described in Paragraphs 2 and 3.1.1 through 3.1.5 of Appendix P of 40 CFR Part 51. The monitoring systems shall meet the minimum specifications described in Paragraphs 3.3 through 3.8 of Appendix P of 40 CFR Part 51.

The quarterly excess emissions (EE) reports required under Appendix P of 40 CFR Part 51 shall be used as an indication of good operation and maintenance of the electrostatic precipitators. These sources shall be deemed to be properly operated and maintained if the percentage of time the opacity emissions, calculated on a 6-minute average, in excess of 40 percent (including startups, shutdowns, and malfunctions) does not exceed 3.0 percent of the total operating time for any given calendar quarter, adjusted for monitor downtime (MD) as calculated below. In addition, these sources shall be deemed to be properly operated and maintained if the %MD does not exceed 2.0 percent for any given calendar quarter as calculated below.

**Calculations for %EE and %MD**

**Percent Excess Opacity Emission (%EE) Calculation:**

$$\% EE = \frac{\text{Total Excess Emission Time}^*}{\text{Total Source Operating Time}^{***} - \text{Monitor Downtime}} \times 100$$

**Percent Monitor Downtime (%MD) Calculation for COMS:**

$$\% MD = \frac{\text{Total Monitor Downtime}^{**}}{\text{Total Source Operating Time}^{***}} \times 100$$

- \* Total Excess Emission Time contains any 6-minute period greater than 40% opacity including startup, shutdown, and malfunction.  
\*\* Total Monitor Downtime includes Quality Assurance (QA) activities unless exempted by regulation or defined in an agency approved QA Manual. The amount of exempt QA Time will be reported in the quarterly report as such.  
\*\*\* If a source operates less than 2200 hours during any quarter, the source may calculate the %EE and/or %MD using all operating data for the current quarter and the preceding quarters until 2200 hours of data are obtained. [N.C.G.S. 143-215.110]

- b. **For periods when the compliance option under Section 2.1.A.3.a.ii [PM CEMS] is used**, the alternative monitoring and recordkeeping procedure in this section (Section 2.1.A.7.b) applies as allowed by Paragraph 3.9 of Appendix P of 40 CFR Part 51. The Permittee shall install, certify, operate, and maintain a PM CEMS to monitor and record PM emissions according to the applicable Maximum Achievable Control Technology (MACT) standards in §63.10010(i) of 40 CFR Part 63 Subpart UUUUU, as specified in Section 2.1.A.16.ff.

The quarterly excess emissions (EE) reports shall be used as an indication of good operation and maintenance of the electrostatic precipitators. These sources shall be deemed to be properly operated and maintained if the percentage of time the PM emissions, calculated on a one-hour average, greater than 0.030 pounds per million Btu heat input\* for Units 1 and 2 Boilers as CS 01, for Unit 3 Boiler, and for Unit 4 Boiler does not exceed 3.0 percent of the total operating time for any given calendar quarter, adjusted for monitor downtime (MD) as calculated in Section 2.1.A.7.a above, except that Total Excess Emission Time contains all one-hour periods greater than 0.030 pounds per million Btu heat input\*. In addition, these sources shall be deemed to be properly operated and maintained if the %MD does not exceed 2 percent for any given calendar quarter as calculated in Section 2.1.A.7.a above.

\* The PM monitored value subject to the 0.030 pounds per million Btu limit may have a 5% CO<sub>2</sub> diluent cap, or a 14% O<sub>2</sub> diluent cap, substituted in the emission rate calculation for a startup or shutdown hour (as defined in §63.10042) in which the measured CO<sub>2</sub> concentration is below 5% or whenever the measured O<sub>2</sub> concentration is above 14%.

- c. The Permittee shall use a (CEMS) to monitor and record sulfur dioxide emissions. Continuous emissions monitoring and recordkeeping of sulfur dioxide shall be performed as described in Paragraphs 2 and 3.1.1 through 3.1.5 of Appendix P of 40 CFR Part 51. The monitoring systems shall meet the minimum specifications described in Paragraphs 3.3 through 3.8 of Appendix P of 40 CFR Part 51.

The quarterly excess emissions (EE) reports required under Appendix P of 40 CFR Part 51 shall be used as an indication of good operation and maintenance of the flue gas desulfurization scrubbers. These sources shall be deemed to be properly operated and maintained if sulfur dioxide emissions do not exceed 0.56 pounds per million Btu calculated on a 24-hour basis. Compliance with the sulfur dioxide emission standard is determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values are summed, and the sum is divided by 24. A minimum of four data points, equally spaced, is required to determine a valid hour value unless the continuous emission monitoring system is installed to meet the provisions of 40 CFR Part 75. If a continuous emission monitoring system is installed to meet the provisions of 40 CFR Part 75, the minimum number of data points is determined by 40 CFR Part 75. In addition, these sources shall be deemed to be properly operated and maintained if the %MD does not exceed 2 percent for any given calendar quarter as calculated in Section 2.1 A.7.a above.

**Reporting** [15A NCAC 02Q .0508(f)]

- d. The Permittee shall submit the excess emissions and monitor downtime reports as required under Appendix P of 40 CFR Part 51 no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September as shown below. Reporting shall be in accordance with Paragraphs 4 and 5.1 of Appendix P of 40 CFR Part 51.
- i. **For periods when the compliance option under Section 2.1 A.3.a.i [COMS] is used**, periods of excess emissions are defined as each six-minute period average greater than 40 percent opacity, the opacity measurements recorded by the COMS shall be reported as described in Paragraphs 4 and 5.1 of Appendix P of 40 CFR Part 51 except that a six-minute time period shall be deemed as an appropriate alternative opacity averaging period as described in Paragraph 4.2 of Appendix P of 40 CFR Part 51. A minimum of 36 data points, equally spaced, is required to determine a valid six-minute value.
  - ii. **For periods when the compliance option under Section 2.1 A.3.a.ii [PM CEMS] is used**, excess PM emissions are defined as any one-hour average greater than 0.030 pounds per million Btu heat input for Units 1 and 2 Boilers as CS01, for Unit 3 Boiler, and for Unit 4 Boiler. The quarterly report shall include the number of hours each day and the percent of operating hours during the quarter with average PM emissions recorded by the PM CEMS greater than the concentration that corresponds to 0.030 pounds per million Btu.
  - iii. Monitor downtime includes periods where there was no visible emission (COMS) or particulate (PM CEMS) monitoring during monitor bypass as described in Section 2.1 5.a.i.
  - iv. For sulfur dioxide, excess emissions are defined as greater than 0.56 pounds per million Btu calculated on a 24-hour block average basis.
  - v. All instances of deviations from the requirements of this permit must be clearly identified

**Federally-Enforceable Only**

**8. CROSS STATE AIR POLLUTION RULES (CSAPR) PERMIT REQUIREMENTS**

For the four boilers (ID Nos. ES-1 thru ES-4), the Permittee shall comply with all applicable requirements of 40 CFR Part 97, Subpart AAAAA "CSAPR NO<sub>x</sub> Annual Trading Program" and Subpart CCCCC "CSAPR SO<sub>2</sub> Group 1 Trading Program".

**9. RESERVED**

**10. RESERVED**

**11. RESERVED**

**12. 15A NCAC 02D .0614: COMPLIANCE ASSURANCE MONITORING for  
15A NCAC 02D .0536: PARTICULATE EMISSIONS FROM ELECTRIC UTILITY BOILERS\***

**\*This Section applies only during periods when the compliance option under Section 2.1 A.3.a.i [COMS] is used**

- a. The four No. 2 fuel oil/natural gas/coal-fired electric utility boilers (ID Nos. ES-1 through ES-4) shall comply with all applicable requirements of 15A NCAC 02D .0614 "Compliance Assurance Monitoring".
- b. The Electrostatic Precipitators shall be properly operated and maintained to control PM emissions from each boiler (ID Nos. ES-1 through ES-4)

**Monitoring/Record keeping** [15A NCAC 02Q .0508(f)]

- c. The Permittee shall comply with the monitoring approach as included in the following Table:

<b>A. Indicator</b>	<b>Opacity</b>
Measurement Approach	Use of 40 CFR 75 certified COMS connected to a data logger
	An excursion is defined as an opacity value (based on a 3-hour block average) greater than:  <div style="text-align: center;">                 20 Percent – Unit 1                  20 Percent – Unit 2                  22 Percent – Unit 3                  25 Percent – Unit 4             </div> Excluding periods of startup, shutdown, off-line activities, malfunction, and maintenance (e.g. soot blowing). Excursions trigger an inspection of the control system and corrective action  If five (5) percent or greater of COMS data (averaged over a three-hour block period and excluding startup, shutdown, off-line activities, malfunction, and maintenance) recorded in a calendar quarter show opacity values higher than those listed above, a stack test shall be performed in the following calendar quarter to demonstrate compliance with the particulate standard. If the stack test exceeds 80 percent of the PM limit, then retesting shall be conducted in accordance with 2.1 A.4.d. If a unit operates less than 2200 hours during any calendar quarter, the facility may evaluate three-hour opacity values using operating data from the current and preceding quarters until 2200 hours of data are obtained.  If no changes are being made to the most recently approved protocol as submitted in the latest annual particulate test it is not necessary for the facility to submit testing protocol 45 days prior to the scheduled test date as specified in General Condition JJ. Instead, the facility shall notify the Mooresville Regional Office by email, fax, or letter, within fifteen (15) business days of making the determination that stack testing is required. The most recently approved protocol and the anticipated date of testing shall be included with that communication. The facility shall conduct testing no less than fifteen calendar (15) days from the date of this notification.
<b>B. Indicator Range</b>	
<b>C. Performance Criteria</b>	
<b>1. Data Representativeness</b>	The COMS location meets the specifications of 40 CFR Part 75 and 40 CFR 60, Appendix B.
<b>2. Verification of Operational Status</b>	Not applicable, use of monitoring equipment is proposed.
<b>3. QA/QC Practices and Criteria</b>	COMS are self-calibrated every 24 hours. Performance evaluations and calibration checks are carried out per 40 CFR 60, Appendix F. Documentation of performance evaluations, calibration checks, and maintenance logbooks are kept for a minimum of 5 years.
<b>4. Monitoring Frequency</b>	Continuous

<b>5. Data Averaging Period</b>	3-hour block average of 6-minute averages starting at midnight each day. (Total of eight 3-hour block periods)
<b>6. Data Collection</b>	Automated data acquisition system (DAHS). Real-time opacity values will be displayed to control room operators and alarms will be given to the operators when limits are exceeded.

- d. For any excursion, the Permittee shall initiate an inspection of the control equipment and/or the COMS and initiate the necessary repairs as identified by the Malfunction Abatement Plan (MAP). In addition to implementing procedures outlined in the MAP, as required in Section 2.1 A.6.a, the following corrective actions shall be taken as soon as practical:
  - i. Identify cause of excursion.
  - ii. Initiate actions to correct the cause of any excursions identified in step i above. Repair equipment that is not operating properly. Isolate ESP fields if necessary in accordance with MAP.
  - iii. Initiate work order for ESP inspection and repair as needed for any equipment that cannot be repaired during operation.
  - iv. Document nature and cause of excursions in operations log.
  - v. Improve preventative maintenance procedures as necessary in accordance with CAM QIP (if one exists) and MAP procedures.
  - vi. Provide notification to DAQ in accordance with reporting requirements in Section 2.1 A.12.f below.
 If the above monitoring and recordkeeping is not performed, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0614.

**Reporting** [15A NCAC 02Q .0508(f)]

- e. The results of any stack test shall be reported within 30 days, and the test report shall be submitted within 60 days after the test.
- f. The Permittee shall submit the quarterly reports as required under 15A NCAC 02D .0614 postmarked on or before January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. The following information shall be included:
  - i. The date, time, and duration of each excursion
  - ii. Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken
  - iii. The percent of operating time the PSEU has excursions
  - iv. Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable)
 All instances of deviations from the requirements of this permit must be clearly identified.

**13. RESERVED**

**14. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS FOR 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. In order to avoid applicability of 15A NCAC 02D .0530(g), the PM/PM10 emissions from Unit 4 boiler (ID No. ES-4) shall be less than 15 tons per consecutive 12-month period, attributable to injecting powdered activated carbon.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

- c. The amount of injected powdered activated carbon in Unit 4 boiler (ID No. ES-4) shall not exceed 9,000,000 lbs per year. The Permittee shall keep monthly records of the amount of powdered activated carbon injected. If the requirements of this condition are not met, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

**Reporting** [15A NCAC 02Q .0508(f)]

- d. The Permittee shall submit a semiannual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the monthly amount of powdered activated carbon injected in the Unit 4



boiler for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months. All instances of deviations from the requirements of this permit must be clearly identified.

**15. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS FOR  
15A NCAC 02D .0531: SOURCES IN NONATTAINMENT AREAS**

- a. In order to avoid applicability of 15A NCAC 02D .0531(f), the PM<sub>2.5</sub> emissions from Unit 4 boiler (ID No. ES-4) shall be less than 10 tons per consecutive 12-month period, attributed to injecting powdered activated carbon.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

- c. Monitoring/recordkeeping requirements in Section 2.1 A.14.c shall be sufficient to ensure compliance with 15A NCAC 02D .0531. .

**Reporting** [15A NCAC 02Q .0508(f)]

- d. Reporting requirements in Section 2.1 A.14.d shall be sufficient to ensure compliance with 15A NCAC 02D .0531.

**16. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (40 CFR PART 63 SUBPART UUUUU)**

- a. The Permittee shall comply with all applicable provisions, including the requirements for emission limitations, work practice standards, operating limits, testing and initial compliance, continuous compliance, monitoring, recordkeeping, notification, and reporting, contained in Environmental Management Commission Standard 15A NCAC 02D .1111 Maximum Achievable Control Technology (MACT) as promulgated in the most current version of 40 CFR Part 63 Subpart UUUUU, “National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units” and Subpart A General Provisions.

**Emission Limitations and Work Practice Standards** [15A NCAC 02Q .0508(b)]

- b. Except as provided under Section 2.1 A.16.c below, the Permittee shall:
  - i. limit the emissions of filterable particulate matter (PM) to 3.0E-2 lb/MMBtu or 3.0E-1 lb/MWh; or  
limit the emissions of total non-Hg HAP metals to 5.0E-5 lb/MMBtu or 5.0E-1 lb/GWh; or  
limit the emissions of individual HAP metals to:

<u>Constituent</u>	<u>Allowable Level</u>
Antimony (Sb)	8.0E-1 lb/TBtu or 8.0E-3 lb/GWh
Arsenic (As)	1.1E0 lb/TBtu or 2.0E-2 lb/GWh
Beryllium (Be)	2.0E-1 lb/TBtu or 2.0E-3 lb/GWh
Cadmium (Cd)	3.0E-1 lb/TBtu or 3.0E-3 lb/GWh
Chromium (Cr)	2.8E0 lb/TBtu or 3.0E-2 lb/GWh
Cobalt (Co)	8.0E-1 lb/TBtu or 8.0E-3 lb/GWh
Lead (Pb)	1.2E0 lb/TBtu or 2.0E-2 lb/GWh
Manganese (Mn)	4.0E0 lb/TBtu or 5.0E-2 lb/GWh
Nickel (Ni)	3.5E0 lb/TBtu or 4.0E-2 lb/GWh
Selenium (Se)	5.0E0 lb/TBtu or 6.0E-2 lb/GWh

- ii. limit the emissions of hydrogen chloride (HCl) to 2.0E-3 lb/MMBtu or 2.0E-2 lb/MWh; or  
limit the emissions of sulfur dioxide (SO<sub>2</sub>) to 2.0E-1 lb/MMBtu or 1.5E0 lb/MWh.
- iii. limit the emissions of mercury (Hg) to 1.2E0 lb/TBtu or 1.3E-2 lb/GWh.

[§63.9991(a)(1) and Table 2 to Subpart UUUUU]

- c. As an alternative to meeting the requirements of §63.9991(a)(1) for filterable PM, SO<sub>2</sub>, HF, HCl, non-Hg HAP metals, or Hg on an EGU-specific basis as described in paragraph a above, the Permittee may choose to demonstrate compliance by using emissions averaging as described in §63.10009(a)(2) among existing EGUs in the same subcategory. If this option is selected for mercury, the Permittee shall limit the concentration of mercury to 1.0 lb/TBtu or 1.1E-2 lb/GWh. [§63.9991(a)(1), §63.10009 and §63.10022]

d. During periods of startup of an EGU:

- i. The Permittee has chosen to comply using the following work practice standards, by choosing to comply using paragraph (1) of the definition of “startup” in §63.10042, defined as follows.

*Startup means either the first-ever firing of fuel in a boiler for the purpose of producing electricity, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on site use). Any fraction of an hour in which startup occurs constitutes a full hour of startup.*

The Permittee shall operate all CMS during startup, except during periods of bypass of the main stack as provided in §63.10010(a)(4). For startup of a unit, clean fuels must be used as defined in §63.10042 for ignition. Once the unit converts to firing coal, the Permittee shall engage all of the applicable control technologies except the SCR. The Permittee shall start the SCR system appropriately to comply with relevant standards applicable during normal operation. The Permittee shall comply with all applicable emissions limits at all times except for periods that meet the applicable definitions of startup and shutdown in Subpart UUUUU. The Permittee shall keep records during startup periods.

- ii. If the Permittee chooses to use just one set of sorbent traps to demonstrate compliance with the applicable Hg emission limit, the Permittee shall comply with the limit at all times; otherwise, the Permittee shall comply with the applicable emission limit at all times except for startup and shutdown periods.
- iii. The Permittee shall collect monitoring data during startup periods, as specified in §63.10020(a) and (e). The Permittee shall keep records during startup periods, as provided in §§63.10032 and 63.10021(h). The Permittee shall provide reports concerning activities and startup periods, as specified in §§63.10011(g), 63.10021(i), and 63.10031. The Permittee shall provide reports concerning activities and startup periods, as specified in §63.10011(g) and §63.10021(h) and (i). All periods of bypass of the main stack shall be reported as deviations as provided in §63.10010(a)(4)(ii).

[§63.9991(a)(1) and Table 3 to Subpart UUUUU]

e. During periods of shutdown of an EGU:

*Shutdown means the period in which cessation of operation of an EGU is initiated for any purpose. Shutdown begins when the EGU no longer generates electricity or makes useful thermal energy (such as heat or steam) for industrial, commercial, heating, or cooling purposes or when no coal, liquid oil, syngas, or solid oil-derived fuel is being fired in the EGU, whichever is earlier. Shutdown ends when the EGU no longer generates electricity or makes useful thermal energy (such as steam or heat) for industrial, commercial, heating, or cooling purposes, and no fuel is being fired in the EGU. Any fraction of an hour in which shutdown occurs constitutes a full hour of shutdown.*

- i. The Permittee shall operate all CMS during shutdown, except during periods of bypass of the main stack as provided in §63.10010(a)(4). The Permittee shall also collect appropriate data, and shall calculate the pollutant emission rate for each hour of shutdown for those pollutants for which a CMS is used. While firing coal during shutdown, the Permittee shall vent emissions to the main stack(s) and operate all applicable control devices and continue to operate those control devices after the cessation of coal being fed into the EGU and for as long as possible thereafter considering operational and safety concerns. In any case, the permittee shall operate the controls when necessary to comply with other standards made applicable to the EGU by a permit limit or a rule other than Subpart UUUUU and that require operation of the control devices. All periods of bypass of the main stack shall be reported as deviations as provided in §63.10010(a)(4)(ii).
- ii. If, in addition to the fuel used prior to initiation of shutdown, another fuel must be used to support the shutdown process, that additional fuel shall be one or a combination of the clean fuels defined in §63.10042 and shall be used to the maximum extent possible taking into account considerations such as not compromising boiler or control device integrity.
- iii. The Permittee shall comply with all applicable emission limits at all times except during startup periods and shutdown periods at which time the Permittee shall meet the work practice standards. The Permittee shall collect monitoring data during shutdown periods, as specified in §63.10020(a). The Permittee shall keep records during shutdown periods, as provided in §§63.10032 and 63.10021(h). The Permittee shall provide reports concerning activities and shutdown periods, as specified in §§63.10011(g), 63.10021(i), and 63.10031.

[§63.9991(a)(1), §63.10042, and Table 3 to Subpart UUUUU]

**General Compliance Requirements** [15A NCAC 02Q .0508(f)]

- f. The Permittee shall comply with the General Provisions as applicable pursuant to Table 9 to Subpart UUUUU. [§63.10040]
- g. The Permittee shall be in compliance with the emission limits and operating limits in Subpart UUUUU. These limits shall apply at all times except during periods of startup and shutdown; however, for coal-fired EGUs, the Permittee shall be required to meet the work practice requirements in Table 3 to Subpart UUUUU during periods of startup or shutdown. [§63.10000(a)]
- h. At all times, the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the EPA Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [§63.10000(b)]
- i. For coal-fired units, initial performance testing is required for all pollutants for the affected EGUs to demonstrate compliance with the applicable emission limits. [§63.10000(c)(1)]
- j. The Permittee shall demonstrate compliance with the filterable particulate matter (PM) emission limit through an initial performance test and shall monitor continuous performance through use of a PM continuous emissions monitoring system (PM CEMS). [§63.10000(c)(1)(iv)]
- k. The Permittee may demonstrate initial and continuous compliance by installing and operating a sulfur dioxide (SO<sub>2</sub>) CEMS installed and operated in accordance with 40 CFR Part 75 to demonstrate compliance with the applicable SO<sub>2</sub> emissions limit. [§63.10000(c)(1)(v)]
- l. The Permittee shall demonstrate initial and continuous compliance through use of a Hg CEMS or a sorbent trap monitoring system in accordance with Appendix A to the Subpart. [§63.10000(c)(1)(vi)]
- m. As part of demonstration of continuous compliance, the Permittee shall perform periodic tune-ups of the affected EGUs, according to §63.10021(e). [§63.10000(e)]
- n. On or before the date an EGU is subject to Subpart UUUUU, the Permittee shall install, certify, operate, maintain, and quality-ensure each monitoring system necessary for demonstrating compliance with the work practice standards for PM during startup periods and shutdown periods. The Permittee shall collect, record, report, and maintain data obtained from these monitoring systems during startup periods and shutdown periods. [§63.10000(l)]
- o. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the general compliance requirements in Sections 2.1 A.16.f through n above are not met.

**Continuous Compliance Requirements** [15A NCAC 02Q .0508(f)]

- p. The Permittee shall monitor and collect data according to §63.10020. [§63.10020(a)]
- q. The Permittee shall operate the monitoring system and collect data at all required intervals at all times that the affected EGU is operating, except for periods of monitoring system malfunctions or out-of-control periods (see §63.8(c)(7)), and required monitoring system quality assurance or quality control activities, including, as applicable, calibration checks and required zero and span adjustments. The Permittee is required to affect monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable. [§63.10020(b)]
- r. Except for periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments, failure to collect required data is a deviation from the monitoring requirements. [§63.10020(d)]
- s. The Permittee shall demonstrate continuous compliance with each emissions limit, operating limit, and work practice standard in Tables 2 and 3 to Subpart UUUUU that applies to the affected EGU, according to the monitoring specified in Table 7 to Subpart UUUUU and paragraphs (b) through (g) of §63.10021(a). [§63.10021(a)]
- t. Except as otherwise provided in §63.10020(c), if the Permittee uses a CEMS to measure SO<sub>2</sub>, PM, HCl, HF, or Hg emissions, or uses a sorbent trap monitoring system to measure Hg emissions, the Permittee shall demonstrate continuous compliance by using all quality-ensured hourly data recorded by the CEMS (or sorbent trap monitoring system) and the other required monitoring systems (e.g., flow rate, CO<sub>2</sub>, O<sub>2</sub>, or moisture systems) to calculate the arithmetic average emissions rate in units of the standard on a continuous 30-boiler operating day (or, if alternate emissions averaging is used for Hg, 90-boiler operating day) rolling average basis, updated at the end of each new boiler operating day. The Permittee shall use Equation 8 to Subpart UUUUU to determine the 30- (or, if applicable, 90-) boiler operating day rolling average.

$$\text{Boiler operating day average} = \frac{\sum_{i=1}^n Her_i}{n} \quad (\text{Eq. 8})$$

Where:

$Her_i$  is the hourly emissions rate for hour  $i$  and  $n$  is the number of hourly emissions rate values collected over 30- (or, if applicable, 90-) boiler operating days.

[§63.10021(b)]

- u. Conduct periodic performance tune-ups of the EGUs, as specified in paragraphs (e)(1) through (9) of §63.10021. For the first tune-up, the Permittee may perform the burner inspection any time prior to the tune-up or delay the first burner inspection until the next scheduled EGU outage provided the requirements of §63.10005 are met. Subsequently, the Permittee shall perform an inspection of the burner at least once every 36 calendar months unless the EGU employs neural network combustion optimization during normal operations in which case an inspection of the burner and combustion controls shall be performed at least once every 48 calendar months. If the EGU is offline when a deadline to perform the tune-up passes, the tune-up work practice requirements shall be performed within 30 days after the re-start of the affected unit. [§63.10021(e)]
- v. The Permittee shall follow the startup or shutdown requirements as given in Table 3 to the Subpart for each coal-fired EGU and comply with all applicable requirements in §63.10011(g). [§§63.10005(j), 63.10011(g) and §63.10021(h)]
- w. If the Permittee elects to average emissions consistent with §63.10009 for any constituent, following the compliance date, the Permittee must demonstrate compliance on a continuous basis by meeting the requirements of paragraphs (a)(1) through (4) of §63.10022. Any instance where the Permittee fails to comply with the continuous monitoring requirements in paragraphs (a)(1) through (3) of §63.10022 is a deviation. [§63.10022]
- x. The Permittee shall determine the fuel whose combustion produces the least uncontrolled emissions, taking safety considerations into account, *i.e.*, the cleanest fuel, either natural gas or distillate oil, that is available on site or accessible nearby for use during periods of startup or shutdown. The cleanest fuel, either natural gas or distillate oil, for use during periods of startup or shutdown determination may take safety considerations into account. [§§63.10011(f)(1) and (2)]
- y. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the continuous compliance requirements in Sections 2.1 A.16.p through x above are not met.

**Monitoring** [15A NCAC 02Q .0508(f)]

- z. For an affected unit that exhausts to the atmosphere through a single, dedicated stack, the Permittee shall either install the required CEMS and sorbent trap monitoring systems in the stack or at a location in the ductwork downstream of all emissions control devices, where the pollutant and diluents concentrations are representative of the emissions that exit to the atmosphere. [§63.10010(a)(1)]
- aa. If the Permittee uses an oxygen ( $O_2$ ) or carbon dioxide ( $CO_2$ ) CEMS to convert measured pollutant concentrations to the units of the applicable emissions limit, the  $O_2$  or  $CO_2$  concentrations shall be monitored at a location that represents emissions to the atmosphere, *i.e.*, at the outlet of the EGU, downstream of all emission control devices. The Permittee shall install, certify, maintain, and operate the CEMS according to 40 CFR Part 75. Use only quality-ensured  $O_2$  or  $CO_2$  data in the emissions calculations; do not use Part 75 substitute data values. [§63.10010(b)]
- bb. If the Permittee is required to use a stack gas flow rate monitor, either for routine operation of a sorbent trap monitoring system or to convert pollutant concentrations to units of an electrical output-based emission standard in Table 2 to Subpart UUUUU, the Permittee shall install, certify, operate, and maintain the monitoring system and conduct on-going quality-assurance testing of the system according to 40 CFR Part 75. Use only unadjusted, quality-ensured flow rate data in the emissions calculations. Do not apply bias adjustment factors to the flow rate data and do not use substitute flow rate data in the calculations. [§63.10010(c)]
- cc. If the Permittee is required to make corrections for stack gas moisture content when converting pollutant concentrations to the units of an emission standard in Table 2 to Subpart UUUUU, the Permittee shall install, certify, operate, and maintain a moisture monitoring system in accordance with 40 CFR Part 75. Alternatively, for coal-fired units, the Permittee may use appropriate fuel-specific default moisture values from §75.11(b) to estimate the moisture content of the stack gas. If the Permittee installs and operates a moisture monitoring system, the Permittee shall not use substitute moisture data in the emissions calculations. [§63.10010(d)]
- dd. The Permittee shall use an  $SO_2$  CEMS and must install the monitor at the outlet of the EGU, downstream of all emission control devices, and must certify, operate, and maintain the CEMS according to 40 CFR Part 75 as specified in paragraphs (f)(1) through (4) of §63.10010. [§63.10010(f)]
- ee. The Permittee shall use a Hg CEMS or a sorbent trap monitoring system, the Permittee shall install, certify, operate, maintain and quality-ensure the data from the monitoring system in accordance with Appendix A to Subpart UUUUU and as specified in §63.10010(g). [§63.10010(g)]
- ff. The Permittee shall install, certify, operate, and maintain a PM CEMS and record the output of the PM CEMS as specified in paragraphs (i)(1) through (5) of §63.10010 (shown below). The compliance limit shall be expressed as a 30-boiler operating day rolling average of the applicable numerical emissions limit value in Table 2 to Subpart UUUUU. [§63.10010(i)]

- i. Install and certify the PM CEMS according to the procedures and requirements in Performance Specification 11—Specifications and Test Procedures for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix B to 40 CFR Part 60, using Method 5 at Appendix A-3 to 40 CFR Part 60 and ensuring that the front half filter temperature shall be  $160^{\circ} \pm 14^{\circ} \text{C}$  ( $320^{\circ} \pm 25^{\circ} \text{F}$ ). The reportable measurement output from the PM CEMS must be expressed in units of the applicable emissions limit (e.g., lb/MMBtu, lb/MWh).
  - ii. Operate and maintain the PM CEMS according to the procedures and requirements in Procedure 2—Quality Assurance Requirements for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix F to 40 CFR Part 60.
    - (A) Conduct the relative response audit (RRA) for the PM CEMS at least once annually (once per 12-month period).
    - (B) Conduct the relative correlation audit (RCA) for the PM CEMS at least once every 3 (calendar) years.
  - iii. Collect PM CEMS hourly average output data for all boiler operating hours except as indicated in §63.10010(i).
  - iv. Calculate the arithmetic 30-boiler operating day rolling average of all of the hourly average PM CEMS output data collected during all nonexempt boiler operating hours.
  - v. Collect data using the PM CEMS at all times the process unit is operating and at the intervals specified in §63.10010(a), except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities.
    - (A) Use all the data collected during all boiler operating hours in assessing the compliance with the operating limit except:
      - (I) Any data collected during periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or quality control activities that temporarily interrupt the measurement of emissions (e.g., calibrations, certain audits). Report any monitoring system malfunctions or out of control periods in the annual deviation reports. Report any monitoring system quality assurance or quality control activities per the requirements of §63.10031(b);
      - (II) Any data collected during periods when the monitoring system is out of control as specified in the site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or quality control activities conducted during out-of-control periods. Report any such periods in the annual deviation report;
      - (III) Any data recorded during periods of startup or shutdown.
    - (B) Record and make available upon request results of PM CEMS system performance audits, dates and duration of periods when the PM CEMS is out of control to completion of the corrective actions necessary to return the PM CEMS to operation consistent with the site-specific monitoring plan.
- gg. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the monitoring requirements in Sections 2.1 A.16.z through ff above are not met.

**Recordkeeping** [15A NCAC 02Q .0508(f)]

- hh. The Permittee shall keep records of the following:
  - i. Records required under appendix A and/or appendix B to Subpart UUUUU for continuous monitoring of Hg emissions.
  - ii. Each notification and report that is submitted to comply with Subpart UUUUU, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that was submitted, according to the requirements in §63.10(b)(2)(xiv).
  - iii. Records of performance stack tests, fuel analyses, or other compliance demonstrations and performance evaluations, as required in §63.10(b)(2)(viii). [§63.10032(a)]
- ii. For each CEMS, the Permittee shall keep records as follows:
  - i. Records described in §63.10(b)(2)(vi) through (xi).
  - ii. Previous (i.e., superseded) versions of the performance evaluation plan as required in §63.8(d)(3).
  - iii. Request for alternatives to relative accuracy test for CEMS as required in §63.8(f)(6)(i).
  - iv. Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period. [§63.10032(b)]
- jj. For each EGU subject to an emission limit, the Permittee shall keep records of monthly fuel use by each EGU, including the type(s) of fuel and amount(s) used. [§63.10032(d)(1)]
- kk. If the Permittee elects to average emissions consistent with §63.10009 for any constituent, the Permittee must additionally keep a copy of the emissions averaging implementation plan required in §63.10009(f) and(j), all calculations required under §63.10009, including daily records of heat input or steam generation, as applicable, and monitoring records consistent with §63.10022. [§63.10032(e)]

- ll. If the Permittee chooses to rely on paragraph (1) of the definition of “startup” in §63.10042 for any EGU, records must be kept of the occurrence and duration of each startup or shutdown. [§63.10032(f)(1)]
- mm. The Permittee shall keep records of the occurrence and duration of each malfunction of an operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment. [§63.10032(g)]
- nn. The Permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with §63.10000(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [§63.10032(h)]
- oo. The Permittee shall keep records of the type(s) and amount(s) of fuel used during each startup or shutdown. [§63.10032(i)]
- pp. The Permittee shall keep records in a form suitable and readily available for expeditious review, according to §63.10(b)(1). The Permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee shall keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee can keep the records off site for the remaining 3 years. [§63.10033(a) through (c)]
- qq. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the recordkeeping requirements in Sections 2.1.A.16.hh through pp above are not met.

**Reporting** [15A NCAC 02Q .0508(f)]

- rr. The Permittee shall submit the reports required under §63.10031 and, if applicable, the reports required under appendices A and B to the Subpart. The electronic reports required by appendices A and B to the Subpart shall be sent to the Administrator electronically in a format prescribed by the Administrator, as provided in §63.10031. CEMS data (except for PM CEMS and any approved alternative monitoring using a HAP metals CEMS) shall be submitted using EPA's Emissions Collection and Monitoring Plan System (ECMPS) Client Tool. Other data, including PM CEMS data, HAP metals CEMS data, and CEMS performance test detail reports, shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool, the Compliance and Emissions Data Reporting Interface, or alternate electronic file format, all as provided for under §63.10031. [§63.10021(f)]
- ss. The Permittee shall report each instance in which the Permittee did not meet an applicable emissions limit or operating limit in Tables 1 through 4 to 40 CFR 63 Subpart UUUUU or failed to conduct a required tune-up. These instances are deemed violations from the requirements of 40 CFR 63 Subpart UUUUU and shall be reported according to §63.10031. [§63.10021(g)]
- tt. The Permittee shall submit all of the notifications in §§63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h), as applicable, by the dates specified, or according to an agreed upon schedule by NCDAQ [§63.9(i)(2)]. [§63.10030(a)]
- uu. When the Permittee is required to conduct a performance test, the Permittee shall submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin. [§63.10030(d)]
- vv. The Permittee shall submit each report in Table 8 to 40 CFR 63 Subpart UUUUU, as applicable. If the Permittee is required to (or elect to) continuously monitor Hg and/or HCl and/or HF emissions, the Permittee shall also submit the electronic reports required under appendix A and/or appendix B to the Subpart, at the specified frequency. [§63.10031(a)]
- ww. The Permittee shall submit each report in Table 8 to 40 CFR 63 Subpart UUUUU, as applicable postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. [§63.10031(b)]
- xx. The compliance report shall contain the following:
  - i. The information required by the summary report located in 63.10(e)(3)(vi).
  - ii. The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by EPA or the basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure.
  - iii. Indicate whether the Permittee burned new types of fuel during the reporting period. If the Permittee did burn new types of fuel the Permittee must include the date of the performance test where that fuel was in use.
  - iv. Include the date of the most recent tune-up for each EGU. The date of the tune-up is the date the tune-up provisions specified in §63.10021(e)(6) and (7) were completed.
  - v. A certification.
  - vi. If there is a deviation from any emission limit, work practice standard, or operating limit, the Permittee must also submit a brief description of the deviation, the duration of the deviation, emissions point identification, and the cause of the deviation.
  - vii. For each excess emissions occurring at an affected source where the Permittee is using a CMS to comply with that emission limit or operating limit, the Permittee shall include the information required in §63.10(e)(3)(v) in the

compliance report specified in §63.10031(c). [§63.10031(c) and §63.10031(d)]

- yy. Each affected source that has obtained a Title V operating permit pursuant to 40 CFR Part 70 or Part 71 shall report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 8 of Subpart UUUUU along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. Submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. [§63.10031(e)]
- zz. On or after July 1, 2018, within 60 days after the date of completing each performance test, the Permittee shall submit the performance test reports required by the Subpart to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). The Permittee shall comply with all applicable requirements in §63.10031(f). [§63.10031(f)]
- aaa. If the Permittee had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. [§63.10031(g)]

**17. 15A NCAC 02D .0530(u): USE OF PROJECTED ACTUAL EMISSIONS TO AVOID APPLICABILITY OF PREVENTION OF SIGNIFICANT DETERIORATION REQUIREMENTS**

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02D .0530(u)]

- a. The Permittee has used projected actual emissions to avoid applicability of prevention of significant deterioration requirements, pursuant to Application 1800073.18B, for the natural gas co-firing project. The Permittee shall perform the following:
  - i. The Permittee shall maintain records of annual emissions in tons per year, on a calendar year basis related to the natural gas co-firing project, for five years following resumption of regular operations after the change is made.
  - ii. The Permittee shall submit a report to the Director within 60 days after the end of each calendar year during which these records must be generated. The report shall contain the items listed in 40 CFR 51.166(r)(6)(v)(a) through (c).
  - iii. The Permittee shall make the information documented and maintained under this condition available to the Director or the general public pursuant to the requirements in 40 CFR 70.4(b)(3)(viii).
  - iv. The reported actual emissions (post-construction emissions) for each of the five calendar years will be compared to the projected actual emissions (pre-construction projection) as included below:

Regulated NSR Pollutant	Projected Actual Emissions* (tons per year)		
	Unit 1 and Unit 2 (ES-1 and ES-2)	Unit 3 (ES-3)	Unit 4 (ES-4)
NOx (as NO <sub>2</sub> )	2,484.7	2,720.1	3,624.2
PM (filterable)	46.5	40.3	59.1
PM <sub>10</sub>	65.8	70.5	81.6
PM <sub>2.5</sub>	51.8	61.6	66.7
SO <sub>2</sub>	1,031.3	1,686.4	1,587.7
VOC	24.7	57.7	57.1
CO	840.1	1,250.4	2,920.3
HF	1.52	1.22	1.26
Lead	1.16E-02	8.51E-03	1.23E-02
Sulfuric Acid Mist	45.4	49.2	31.5
GHG as CO <sub>2e</sub>	1,830,903	2,331,659	2,357,423

\* These projections are not enforceable limitations. If projected emissions are exceeded, consistent with 15A NCAC 02D .0530, the Permittee shall include in its annual report an explanation as to why the actual rates exceeded the projection.

**B. Limestone Receiving, Transfer, Storage, and Processing Equipment:**

**Limestone train unloading facility (ID No. ES-6 (RUL)),  
two limestone rail unloading hoppers (ID Nos. ES-6a (RULa) and ES-6b (RULb)),  
60 inches wide limestone unloading belt feeder no. A (ID No. ES-7 (LUBFA)),  
60 inches wide limestone unloading belt feeder no. B (ID No. ES-8 (LUBFB)), and  
associated baghouse (ID No. CD-RULBF),**

**48 inches wide limestone unloading conveyor (ID No. ES-9 (LCB1)),  
48 inches wide limestone stack out conveyor (ID No. ES-11 (LCB2)),  
40 inches wide limestone reclaim grate feeder (ID No. ES-12a (LPR)),  
30 inches wide limestone reclaim conveyor (ID No. ES-12b (LCB3)),  
30 inches wide limestone plant feed conveyor no. 1 (ID No. ES-14 (LCB4)),  
30 inches wide limestone plant feed conveyor no. 2 (ID No. ES-16 (LCB5)),  
30 inches wide limestone plant feed conveyor no. 3 (ID No. ES-18a (LCB6a)),  
36 inches wide emergency limestone feeder conveyor (ID No. ES-18c (LCB6c)),  
limestone wet ball mill no. 1 (ID No. ES-24 (BM1)), and  
limestone wet ball mill no. 2 (ID No. ES-25 (BM2)),**

**Emergency limestone bucket elevator (ID No. ES-18b (ELBE)),  
30 inches wide limestone silo fill conveyor no. 1 (ID No. ES-20 (S1LCB7)),  
30 inches wide limestone silo fill conveyor no. 2 (ID No. ES-21 (S2LCB8)),  
limestone storage silo no. 1 (ID No. ES-22 (LS1)),  
limestone storage silo no. 2 (ID No. ES-23 (LS2)), and  
associated baghouse (ID No. CD-LPTTBF)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	<b><u>Affected emission sources: All listed above under Section 2.1 B</u></b> Ambient air quality standards	15A NCAC 02D .0510
Visible Emissions	<b><u>Affected emission source: ID No. ES-6(RUL)</u></b> 20 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period.	15A NCAC 02D .0521
Particulate Matter From Stacks	<b><u>Affected emission sources: ID Nos. ES-6a(RULa), ES-6b (RULb), ES-7(LUBFA), ES-8(LUBFB), ES-18b(ELBE), ES-20(S1LCB7), ES-21(S2LCB8), ES-22(LS1), and ES-23(LS2)</u></b> 0.05 g/dscm (0.022 gr/dscf)	15A NCAC 02D .0524, NSPS Subpart OOO  40 CFR 60.672(a)(1)
Visible Emissions From Stacks	<b><u>Affected emission sources: ID Nos. ES-6a(RULa), ES-6b (RULb), ES-7(LUBFA), ES-8(LUBFB), ES-18b(ELBE), ES-20(S1LCB7), ES-21(S2LCB8), ES-22(LS1), and ES-23(LS2)</u></b> 7 percent opacity	15A NCAC 02D .0524, NSPS Subpart OOO  40 CFR 60.672(a)(2)
Visible Emissions From Fugitive Sources (Other Than Crushers) <u>Not</u> Enclosed In A Building	<b><u>Affected emission sources: Transfer point from ES-12a(LPR) to ES-12b(LCB3)</u></b>  10 percent opacity	15A NCAC 02D .0524, NSPS Subpart OOO  40 CFR 60.672(b)



Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible Emissions From Fugitive Sources (Other Than Crushers) Enclosed in a Building	<p><b><u>Affected emission sources: Transfer point from ES-9(LCB1) to ES-11(LCB2) inside limestone unloading transfer tower, transfer point from ES-12b(LCB3) to ES-14(LCB4) inside transfer tower #1, transfer point from ES-14(LCB4) to ES-16(LCB5) inside yard transfer tower, transfer point from ES-16(LCB5) to ES-18a(LCB6a) inside transfer tower #2, and transfer point from ES-18c(LCB6c) to ES-18b(ELBE) inside limestone plant transfer tower</u></b></p> <p>7 percent opacity from building openings except from a vent as defined in 40 CFR 60.671 (see Section 2.1 B.3.d for vent requirements)</p> <p style="text-align: center;"><b>OR:</b></p> <p>10 percent opacity from the individual emission sources</p>	<p>15A NCAC 02D .0524, NSPS Subpart 000</p> <p>40 CFR 60.672(e)</p> <p style="text-align: center;">OR:</p> <p>40 CFR 60.672(b)</p>
Visible Emissions From Crushers Enclosed in a Building	<p><b><u>Affected emission sources: ES-24(BM1) and ES-25(BM2) located inside the reagent preparation building</u></b></p> <p>7 percent opacity from building openings except from a vent as defined in 40 CFR 60.671 (see Section 2.1 B.3.d for vent requirements)</p> <p style="text-align: center;">OR:</p> <p>15 percent opacity from the individual emission sources</p>	<p>15A NCAC 02D .0524, NSPS Subpart 000</p> <p>40 CFR 60.672(e)</p> <p style="text-align: center;">OR:</p> <p>40 CFR 60.672(c)</p>
Fugitive Non-Process Dust Emissions	<p><b><u>Affected emission sources: All listed above under Section 2.1 B</u></b> see Section 2.2 A</p>	<p>15A NCAC 02D .0540</p>
Toxic Air Pollutants	<p>See Section 2.2.B.1</p>	<p>15A NCAC 02D .1100</p>

**1. 15A NCAC 02D .0510: PARTICULATES FROM SAND, GRAVEL, OR CRUSHED STONE OPERATIONS**

- a. The Permittee shall not cause, allow, or permit any material in a sand, gravel, or crushed stone operation to be produced, handled, transported or stockpiled without taking measures to reduce to a minimum any particulate matter from becoming airborne to prevent exceeding the ambient air quality standards beyond the property line for particulate matter, both PM10 and total suspended particulates.
- b. Fugitive non-process dust emissions from sand, gravel, or crushed stone operations shall be regulated by Section 2.2 A.1. (15A NCAC 02D .0540).
- c. The Permittee shall control process-generated emissions from conveyors, screens, and transfer points, such that the applicable opacity standards in Sections 2.1 B.2 (15A NCAC 02D .0521) and 2.1 B.3 (15A NCAC 02D .0524 - 40 CFR 60, Subpart 000) are not exceeded.

**Testing** [15A NCAC 02Q .0508(f)]

- d. If emissions tests are required, the testing shall be performed in accordance with the applicable permit limit. If the results of this test are above the applicable limit, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0510.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02Q .0508(f)]

- e. The monitoring/recordkeeping/reporting required by Sections 2.1 B.3.f, h, and k for particulate matter is sufficient to ensure compliance with 15A NCAC 02D .0510. If the monitoring and recordkeeping requirements in Sections 2.1 B.3.f and h are not complied with, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0510.

## 2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from limestone rail unloading station (ID No. ES-6 (RUL)) shall not be more than 20 percent opacity (except during startups, shutdowns, and malfunctions) 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.

### **Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

### **Monitoring** [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a month the Permittee shall observe the emissions from the limestone rail unloading station (**ID No. ES-6 (RUL)**) for any visible emissions above normal. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 02D .0521 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 02D .0501(c)(8) for 30 minutes is below the limit given in Section 2.1 B.2.a above. If the demonstration in (c) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

### **Recordkeeping** [15A NCAC 02Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. The date and time of each recorded action;
  - ii. The results of each 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 15A NCAC 02D .0521 if these records are not maintained.

### **Reporting** [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

## 3. 15A NCAC 02D .0524: NSPS 40 CFR PART 60 SUBPART OOO

- a. On and after the date on which the performance test is completed, the Permittee shall not allow to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any stack emissions that:
- i. Contain particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf); and
  - ii. Exhibit greater than 7 percent opacity.
  - iii. Emission sources with stack emissions affected by these requirements include:
    - (A) Railcar unloading enclosure dust collection system with fabric filter (ID No. CD-RULBF) installed on: two limestone rail unloading hoppers (ID Nos. ES-6a (RULa) and ES-6b (RULb)), 60 inches wide limestone unloading belt feeder no. A (ID No. ES-7 (LUBFA)), 60 inches wide limestone unloading belt feeder no. B (ID No. ES-8 (LUBFB));
    - (B) Limestone plant dust collection system with fabric filter (ID No. CD-LPTTBF) installed on: emergency limestone bucket elevator (ID No. ES-18b (ELBE)), 30 inches wide limestone silo fill conveyor no. 1 (ID No. ES-20 (S1LCB7)), 30 inches wide limestone silo fill conveyor no. 2 (ID No. ES-21 (S2LCB8)), limestone storage silo no. 1 (ID No. ES-22 (LS1)), limestone storage silo no. 2 (ID No. ES-23 (LS2)); and
    - (C) Any vent as defined in 40 CFR 60.671 of any building enclosing any affected emission source.
- b. On and after the date on which the performance test is completed, the Permittee shall not allow to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility, fugitive emissions that exhibit greater than 10 percent opacity. Where any transfer points on belt conveyors or any other affected facility are enclosed inside a building, the Permittee may choose to comply with the emission standard requirements for building enclosures as defined below under Section 2.1 B.3.d below instead.

- c. On and after the date on which the performance test is completed, the Permittee shall not allow to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions that exhibit greater than 15 percent opacity. Affected sources include the two limestone wet ball mills (ID Nos. ES-24(BM1) and ES-25(BM2)) located inside the reagent preparation building. Since the affected sources are enclosed inside a building, the Permittee may choose to comply with the emission standard requirements for building enclosures as defined below under Section 2.1 B.3.d below instead.
- d. In lieu of meeting the requirements of Sections 2.1 B.3.b and c for NSPS-affected emissions sources enclosed inside a building, the Permittee may choose to comply with the following requirements:
  - (A) Fugitive emissions from the building openings (except for vents as defined in §60.671) shall not exceed 7 percent opacity;
  - (B) Any vent as defined in 40 CFR 60.671 on any building enclosing any transfer point on a conveyor belt or any other affected facility shall not discharge emissions of particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf) or visible emissions in excess of 7 percent opacity.
  - (C) Affected buildings include the limestone unloading transfer tower which houses the transfer point between ES-9 (LCB1) and ES-11 (LCB2), transfer tower #1 which houses the transfer point between ES-12b (LCB3) and ES-14 (LCB4), the yard transfer tower which houses the transfer point between ES-14 (LCB4) and ES-16 (LCB5), transfer tower #2 which houses the transfer point between ES-16 (LCB5) and ES-18a (LCB6a), the limestone plant transfer tower which houses the transfer point between ES-18c (LCB6c) and ES-18b (ELBE), and the reagent preparation building which houses ES-24 (BM1) and ES-25 (BM2).

**Testing** [15A NCAC 02Q .0508(f)]

- e. In addition to initial performance testing, emissions testing may be subsequently required to demonstrate compliance with an applicable permit condition. The testing shall be performed in accordance with General Condition JJ. If the results of this test are above any limit given in Section 2.1 B.3.a through d above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

**Monitoring** [15A NCAC 02Q .0508(f)]

- f. Particulate matter emissions from sources ID Nos. ES-6a (RULa), ES-6b (RULb), ES-7 (LUBFA), and ES-8 (LUBFB) shall be controlled by fabric filter ID No. CD-RULBF, and particulate matter emissions from sources ID Nos. ES-18b (ELBE), ES-20 (S1LCB7), ES-21 (S2LCB8), ES-22 (LS1), and ES-23 (LS2) shall be controlled by fabric filter ID No. CD-LPTTBF. To ensure compliance, the Permittee shall perform inspections and maintenance on the fabric filters as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
  - i. A monthly visual inspection of the system ductwork and baghouse for leaks; and
  - ii. An annual internal inspection of the baghouse, fabric filters, and ducting for structural integrity for each 12- month period following the initial inspection.The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the ductwork, baghouse, and fabric filters are not inspected and maintained.
- g. To ensure compliance with the opacity standards, once a month the Permittee shall observe the individual NSPS-affected emission sources (ID Nos. ES-6a (RULa), ES-6b (RULb), ES-7 (LUBFA), ES-8 (LUBFB), ES-9 (LCB1), ES-11 (LCB2), ES-12a (LPR), ES-12b (LCB3), ES-14 (LCB4), ES-16 (LCB5), ES-18a (LCB6a), ES-18b (ELBE), ES-18c(LCB6c), ES-20 (S1LCB7), ES-21 (S2LCB8), ES-22 (LS1), ES-23 (LS2), ES-24 (BM1), and ES-25 (BM2)) subject to an opacity standard, or the buildings/enclosures housing these sources, for any visible emissions above normal. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
  - i. immediately shutdown the source, repair the malfunction, and conduct a follow-up visible emissions observation demonstrating normal emissions,
  - ii. be deemed to be in noncompliance with 15A NCAC 02D .0524, or
  - iii. demonstrate that the percent opacity from the emission points of the emission sources in accordance with 40 CFR 60.675 and 15A NCAC 02D .0501(c)(8) is below the limit given in Sections 2.1 B.3.a.ii, b, and c above.If the compliance demonstration in i or iii above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0524.

**Recordkeeping** [15A NCAC 02Q .0508(f)]

- h. The results of all inspection and maintenance activities shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. The date and time of each recorded action;
  - ii. The results of each inspection;
  - iii. The results of any maintenance performed on the fabric filters, duct work, or baghouse; and
  - iv. Any variance from manufacturer’s recommendations, if any, and corrections made.
- i. The results of the visible emission monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. The date and time of each recorded action;
  - ii. The results of each 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.
- j. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

- k. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1 B.3.f through h postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**C. One 1,000 HP, No. 2 fuel oil fired emergency use water pump (ID No. ES-26 (EQWP))**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur Dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible Emissions	20 percent opacity with exceptions See section 2.1 C.2.	15A NCAC 02D .0521
HAPs	Initial Notification Requirement	15A NCAC 02D .1111 (40 CFR 63 Subpart ZZZZ)

**1. 15A NCAC 02D .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.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02Q .0508(f)]

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

**2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from this source shall not be more than 20 percent opacity (except during startup, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

**Monitoring** [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, the Permittee shall perform a Method 9 test for 1 hour using a pre-approved protocol to be submitted in accordance with General Condition JJ before the source operates more than 1100 hours using No. 2 fuel oil. This monitoring procedure shall be repeated before each subsequent 1100 hours of operation using No. 2 fuel oil from the last test. If the results of this test are above the limit given in Section 2.1 C.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

**Recordkeeping** [15A NCAC 02Q .0508(f)]

- d. The Permittee shall keep records of the hours and associated dates, when these sources are in operation using No. 2 fuel oil, and the dates of performance of Method 9 tests. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of the Method 9 test as a part of the quarterly report described in Section 2.1 A.7.d above. All instances of deviations from the requirements of this permit must be clearly identified.

**3. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (MACT-40 CFR PART 63 SUBPART ZZZZ)**

**Applicability** [40 CFR 63.6585, §63.6590(a)(2)(i)]

- a. For this emission source (a new stationary RICE with a site rating of more than 500 brake HP located at a major 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 Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines" and Subpart A "General Provisions."

**Stationary RICE subject to limited requirements**

- b. Pursuant to §63.6590(b)(1)(i), this emergency RICE does not have to meet the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A except for the initial notification requirements of §63.6645(f). These notification requirements in condition were met in the submittal of permit application no. 1800073.03B:

**D. One limestone storage pile (ID No. F1)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Fugitive Non-Process Dust Emissions	See Section 2.2 A.1	15A NCAC 02D .0540
Toxic Air Pollutants	See Section 2.2.B.1	15A NCAC 02D .1100

**E. Two ash storage silos (ID Nos. ES-S1 and ES-S2), two (dry) flyash truck loading equipment (ID Nos. ES-FTL D1 and ES-FTL D2), and associated baghouses (ID Nos. CD-S1 and CD-S2) two (wet) flyash truck loading equipment (ID Nos. ES-FTL W1 and ES-FTL W2)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E = 4.10 \times (P)^{0.67}$ for $P \leq 30$ tons/hr, or $E = 55.0 \times (P)^{0.11} - 40$ for $P > 30$ tons/hr Where: E = allowable particulate emission rate in pounds per hour P = process weight rate in tons per hour	15A NCAC 02D .0515
Visible Emissions	20 percent opacity with exceptions See section 2.1 E.2	15A NCAC 02D .0521
Toxic Air Pollutants	See Section 2.2.B.1	15A NCAC 02D .1100

**1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

a. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation:

$$E = 4.10 \times P^{0.67} \quad \text{for } P \leq 30 \text{ tons/hr, or}$$

$$E = 55.0 \times P^{0.11} - 40 \quad \text{for } P > 30 \text{ tons/hr}$$

Where: E = allowable emission rate in pounds per hour  
 P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

**Testing** [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in **Section 2.1 E.1.a** above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

c. Particulate matter emissions from the two ash storage silos (**ID Nos. ES-S1 and ES-S2**) and two dry flyash truck loading equipment (**ID Nos. ES-FTL D1 and ES-FTL D2**) shall be controlled by the bagfilters (**ID Nos. CD-S1 and CD-S2**). To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer’s inspection and maintenance recommendations, or if there are no manufacturer’s inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:

- i. A monthly visual inspection of the system ductwork and material collection unit for leaks; and
- ii. An annual (for each 12-month period following the initial inspection) internal inspection of the bagfilters’ structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and bagfilters are not inspected and maintained.

d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:

- i. The date and time of each recorded action;
- ii. The results of each inspection;
- iii. The results of any maintenance performed on the bagfilters; and
- iv. Any variance from manufacturer’s recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the bagfilters within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from these sources shall not be more than 20 percent opacity (except during startups, shutdowns, and malfunctions) 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.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

**Monitoring** [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a month the Permittee shall observe the emission points of these sources for any visible emissions above normal. If visible emissions from these sources are observed to be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 02D .0521 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 02D .2610 for 30 minutes is below the limit given in Section 2.1 E.2.a above. If the demonstration in (c) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

**Recordkeeping** [15A NCAC 02Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. The date and time of each recorded action;
  - ii. The results of each 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 15A NCAC 02D .0521 if these records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**F. Four NSPS coal conveyors (ID Nos. ES-CCONV2, ES-CCONV6, ES-CCONV7 and ES-CCONV8)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E = 4.10 \times (P)^{0.67}$ for $P \leq 30$ tons/hr, or $E = 55.0 \times (P)^{0.11} - 40$ for $P > 30$ tons/hr Where: E = allowable particulate emission rate in pounds per hour P = process weight rate in tons per hour	15A NCAC 02D .0515
Visible Emissions	20 percent opacity (Except during periods of startup, shutdown and malfunction)	15A NCAC 02D .0524 (40 CFR Part 60 Subpart Y)
Toxic Air Pollutants	See Section 2.2.B.1	15A NCAC 02D .1100

**1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

- a. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$  for  $P \leq 30$  tons/hr, or  
 $E = 55.0 \times P^{0.11} - 40$  for  $P > 30$  tons/hr

Where: E = allowable emission rate in pounds per hour  
 P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in **Section 2.1** F.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from these sources to ensure compliance with this regulation.

**2. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS (40 CFR PART 60 SUBPART Y)**

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements in accordance with 15A NCAC 02D .0524, "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60, Subpart Y, including Subpart A "General Provisions." [15A NCAC 02D .0524]
- b. On or after the date on which the performance test required to be conducted under 40 CFR 60.8 is completed, visible emissions shall not be 20 percent opacity or greater except during periods of startup, shutdown and malfunction.

**Testing** [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.2.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

**Monitoring** [15A NCAC 02Q .0508(f)]

- d. To ensure compliance, once a month the Permittee shall observe the emission points of these sources for any visible emissions above normal. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A



NCAC 02D .0524 or (c) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .0501(c)(8) for 30 minutes is below the limit given in Section 2.1 F.2.b above. If the demonstration in (c) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0524.

**Recordkeeping** [15A NCAC 02Q .0508(f)]

- e. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. The date and time of each recorded action;
  - ii. The results of each 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 15A NCAC 02D .0524 if these records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**G. One No. 2 fuel oil-fired emergency/blackout protection diesel generator (ID No. ES-35 (EmGen)) and one No. 2 fuel oil-fired diesel emergency air compressor (ID No. ES-36 (AC))**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur Dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible Emissions	20 percent opacity with exceptions See section 2.1 G.2	15A NCAC 02D .0521
HAPs	Initial Notification Requirements	15A NCAC 02D .1111 (40 CFR 63 Subpart ZZZZ)

**1. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of sulfur dioxide from these sources shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 G.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02Q .0508(f)]

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

**2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from this source shall not be more than 20 percent opacity (except during startup, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 G.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

**Monitoring** [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, the Permittee shall perform a Method 9 test for 1 hour using a preapproved protocol to be submitted in accordance with General Condition JJ before the sources operate more than 1100 hours using No. 2 fuel oil. This monitoring protocol shall be repeated before each subsequent 1100 hours of operation using No. 2 fuel oil from the last test for each source. If the results of any Method 9 test is above the limit in Section 2.1 G.2.a above, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

**Recordkeeping** [15A NCAC 02Q .0508(f)]

- d. The Permittee shall keep records of the hours and associated dates, when these sources are in operation using No. 2 fuel oil, and the dates of performance of Method 9 tests. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of the Method 9 test as a part of the quarterly report described in Section 2.1 A.7.d above. All instances of deviations from the requirements of this permit must be clearly identified.

**3. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (MACT – 40 CFR PART 63 SUBPART ZZZZ)**

**Applicability** [40 CFR 63.6585, §63.6590(a)(2)(i)]

- a. For these emission sources (new stationary RICE with a site rating of more than 500 brake HP located at a major 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 Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines" and Subpart A "General Provisions."

**Stationary RICE subject to limited requirements**

- b. Pursuant to §63.6590(b)(1)(i), this emergency RICE does not have to meet the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A except for the initial notification requirements of §63.6645(f). These notification requirements in condition were met in the submittal of permit application no. 1800073.04B:

**H. One flyash transfer silo (ID No. ES-TSU3&4) and associated bagfilter (ID No. TSVF)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons/hr, or $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons/hr Where: E = allowable emission rate in pounds per hour P = process weight rate in tons per hour	15A NCAC 02D .0515
Visible Emissions	20 percent opacity with exceptions See Section 2.1 H.2	15A NCAC 02D .0521
Toxic Air Pollutants	See Section 2.2.B.1	15A NCAC 02D .1100

**1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

- a. Emissions of particulate matter from this source shall not exceed an allowable emission rate as calculated by the following equation:

$$E = 4.10 \times P^{0.67} \quad \text{for } P \leq 30 \text{ tons/hr, or}$$

$$E = 55.0 \times P^{0.11} - 40 \quad \text{for } P > 30 \text{ tons/hr}$$

Where: E = allowable emission rate in pounds per hour  
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 H.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from the flyash transfer silo (ID No. ES-TSU3&4) shall be controlled by the bagfilter (ID No. CD-TSVF). To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer’s inspection and maintenance recommendations, or if there are no manufacturer’s inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. A monthly visual inspection of the system ductwork and material collection unit for leaks; and
  - ii. An annual (for each 12-month period following the initial inspection) internal inspection of the bagfilters’ structural integrity.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and bagfilters are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. The date and time of each recorded action;
  - ii. The results of each inspection;
  - iii. The results of any maintenance performed on the bagfilters; and
  - iv. Any variance from manufacturer’s recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the bagfilters within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from this source shall not be more than 20 percent opacity (except during startups, shutdowns, and malfunctions) 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.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 H.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

**Monitoring** [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a month the Permittee shall observe the emission points of these sources for any visible emissions above normal. If visible emissions from these sources are observed to be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 02D .0521 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 02D .2610 for 30 minutes is below the limit given in Section 2.1 H.2.a above. If the demonstration in (c) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

**Recordkeeping** [15A NCAC 02Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. The date and time of each recorded action;
  - ii. The results of each 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 15A NCAC 02D .0521 if these records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**I. One 100 kW No. 2 Fuel Oil-Fired Emergency Generator Located at Landfill (ID No. ES-37 (EmGenLF))**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
visible emissions	20 percent opacity with exceptions See section 2.1 I.1	15A NCAC 02D .0521
nitrogen oxides VOCs carbon monoxide particulates	See Section 2.1 I.2	15A NCAC 02D .0524 NSPS (40 CFR Part 60 Subpart III)
HAPs	See Section 2.1 I.3	15A NCAC 02D .1111 MACT (40 CFR 63 Subpart ZZZZ)

**1. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from this source shall not be more than 20 percent opacity (except during startup, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 I.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02Q .0508(f)]

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

**2. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS (40 CFR PART 60 SUBPART III)**

**Applicability** [15A NCAC 02Q .0508(f), 40 CFR 60.4200(a)(2)(i)]

- a. For this engine, 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 02D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart III, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines," including Subpart A "General Provisions."

**General Provisions** [15A NCAC 02Q .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 III.

**Emission Standards** [15A NCAC 02Q .0508(f)]

- c. The Permittee shall comply with the emission standards 40 CFR 60.4202 for all pollutants, for the same model year and maximum engine power for this engine. [40CFR 60.4205(b)]

**Fuel Requirements** [15A NCAC 02Q .0508(f)]

- d. The Permittee shall use diesel fuel in the engine that meets the requirements of 40 CFR 80.510(b) including:
  - i. a maximum sulfur content of 15 ppm; and
  - ii. a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.
[40 CFR 60.4207(b)]

**Testing** [15A NCAC 02Q .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 Sections 2.1 I.2.c and d above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

**Monitoring** [15A NCAC 02Q .0508(f)]

- f. The engine has the following monitoring requirements:
- i. The engines shall be equipped with a non-resettable hour meter prior to startup. [40CFR 60.4209(a)]
  - ii. The engine, if equipped with a diesel particulate filter, must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. [40CFR 60.4209(b)]

**Compliance Requirements** [15A NCAC 02Q .0508(b)]

- g. 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. [40CFR 60.4206 and 60.4211(a)]
- h. The Permittee shall comply with the emission standards in condition c. by purchasing an engine certified to the emission standards in Section 2.1 I.2.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. [40CFR 60.4211(c)]
- i. In order for the engine to be considered an emergency stationary ICE under this condition, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described below, is prohibited.
- (1) There is no time limit on the use of emergency stationary ICE in emergency situations.
  - (2) The Permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraph (i)(2)(i) of this condition for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (i)(3) of this condition counts as part of the 100 hours per calendar year allowed by this paragraph (i)(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.
  - (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 provided in paragraph (i)(2) of this condition. Except as provided in paragraph (i)(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.
    - (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:
      - (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
      - (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.
      - (C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
      - (D) The power is provided only to the facility itself or to support the local transmission and distribution system.
      - (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.

[40CFR 60.4211(f)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the requirements in Sections 2.1 I.2.f through i are not met.

**Recordkeeping** [15A NCAC 02Q .0508(f)]

- j. To ensure 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 results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed on the engine;
  - iv. any variance from manufacturer's recommendations, if any, and corrections made;
  - v. the hours of operation of the engine in emergency and non-emergency service. [40 CFR 60.4214(b)]
  - vi. 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 Section 2.1 I.2.c.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

- k. The Permittee shall submit a summary report of the monitoring and recordkeeping activities in sections 2.1 I.2.f through j, 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.
- l. If the Permittee owns or operates an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates for the purposes specified in Section 2.1 I.2.i(3)(i), the Permittee shall submit an annual report according to the requirements at 40 CFR 60.4214(d). This report must be submitted to the Regional Supervisor and the EPA. [40 CFR 60.4214(d)]

**3. 15A NCAC 02D .1111 MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY [40 CFR 63 SUBPART ZZZZ]**

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

- a. For this engine (stationary RICE with a site rating of equal to or less than 500 brake HP located at a major 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 02Q. 0508(f)]

- b. Pursuant to 40 CFR 63.6590(c)(6), this source 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. If these requirements are not met, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111.

**J. One MS4 DSI ACI storage silo (ID No. ES-U4ACISilo) and associated ACI storage silo bin vent filter baghouse (ID No. CD-U4ACISiloBf)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E = 4.10 \times (P)^{0.67}$ for $P \leq 30$ tons/hr, or $E = 55.0 \times (P)^{0.11} - 40$ for $P > 30$ tons/hr Where: E = allowable particulate emission rate in pounds per hour P = process weight rate in tons per hour	15A NCAC 02D .0515
Visible Emissions	20 percent opacity with exceptions See Section 2.1 J.2	15A NCAC 02D .0521
Toxic Air Pollutants	See Section 2.2.B.1	15A NCAC 02D .1100

**1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

- a. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation:

$$E = 4.10 \times P^{0.67} \quad \text{for } P \leq 30 \text{ tons/hr, or}$$

$$E = 55.0 \times P^{0.11} - 40 \quad \text{for } P > 30 \text{ tons/hr}$$

Where: E = allowable emission rate in pounds per hour  
 P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 J.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from the MS4 DSI ACI storage silo (ID No. ES-U4ACISilo) shall be controlled by the bagfilter (ID No. CD-U4ACISiloBf). To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer’s inspection and maintenance recommendations, or if there are no manufacturer’s inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
  - i. A monthly visual inspection of the system ductwork and material collection unit for leaks; and
  - ii. An annual (for each 12-month period following the initial inspection) internal inspection of the bagfilters’ structural integrity.
- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. The date and time of each recorded action;
  - ii. The results of each inspection;
  - iii. The results of any maintenance performed on the bagfilter; and
  - iv. Any variance from manufacturer’s recommendations, if any, and corrections made.

**Reporting** [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the bagfilter as required pursuant to Section 2.1 J.1.c within 30 days of a written request by the DAQ.



- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities required pursuant to Sections 2.1 J.1 c and d postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from these sources shall not be more than 20 percent opacity (except during startups, shutdowns, and malfunctions) 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.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 J.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

**Monitoring** [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a month the Permittee shall observe the emission points of these sources for any visible emissions above normal. If visible emissions from these sources are observed to be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 02D .0521 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 02D .2610 for 30 minutes is below the limit given in Section 2.1 J.2.a above.

**Recordkeeping** [15A NCAC 02Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. The date and time of each recorded action;
  - ii. The results of each 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 15A NCAC 02D .0521 if these records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations as required in Section 2.1 J.2.c postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**K. wastewater treatment facility lime storage silo (ID No. ES-WWTF Silo) with associated bin vent filter (ID No. CD-WWTF-Silo-BF)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	ambient air quality standards	15A NCAC 02D .0510
visible emissions	20 percent opacity with exceptions See Section 2.1.K.2	15A NCAC 02D .0521
Toxic Air Pollutants	See Section 2.2.B.1	15A NCAC 02D .1100

**1. 15A NCAC 02D .0510: PARTICULATES FROM SAND, GRAVEL, OR CRUSHED STONE OPERATIONS**

- a. The Permittee shall not cause, allow, or permit any material to be produced, handled, transported or stockpiled without taking measures to reduce to a minimum any particulate matter from becoming airborne to prevent exceeding the ambient air quality standards beyond the property line for particulate matter, both PM10 and total suspended particulates.
- b. Fugitive non-process dust emissions shall be controlled by 15A NCAC 02D .0540.
- c. The Permittee shall control emissions from conveyors, screens, and transfer points, such that the applicable opacity standards in Section 2.1.K.2.a below are not exceeded.

**Testing** [15A NCAC 02D .2601]

- d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1.K.2 below, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0510.

**Monitoring** [15A NCAC 02Q .0508(f)]

- e. Particulate matter emissions from this source (ID No. ES-WWTF Silo) shall be controlled by the associated bin vent filter (ID No. CD-WWTF-Silo-BF). To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer’s inspection and maintenance recommendations, or if there are no manufacturer’s inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
  - i. A monthly visual inspection of the system ductwork and material collection unit for leaks; and
  - ii. An annual (for each 12-month period following the initial inspection) internal inspection of the bin vent filter’s structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0510 if the ductwork and bin vent filter are not inspected and maintained.

**Recordkeeping** [15A NCAC 02Q .0508(f)]

- f. The results of inspection and maintenance in Section 2.1.K.1.e above shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. The date and time of each recorded action;
  - ii. The results of each inspection;
  - iii. The results of any maintenance performed on the bin vent filter; and
  - iv. Any variance from manufacturer’s recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0510 if these records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

- g. The Permittee shall submit a summary report of the monitoring and recordkeeping activities by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

## 2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from this source shall not be more than 20 percent opacity (except during startups, shutdowns, and malfunctions) 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.

### **Testing** [15A NCAC 02D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 02D .2601 and General Condition JJ. If the results of this test are above the limits given in Section 2.1.K.2.a, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

### **Monitoring** [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a month the Permittee shall observe the emission points of this source (ID No. ES-WWTF Silo) for any visible emissions above normal. The Permittee shall establish "normal" for the source in the first 30 days following start-up of the sources. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 02D .0521 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 02D .2601 for 30 minutes is below the limit given in Section 2.1.K.2.a above. If the demonstration in (c) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

### **Recordkeeping** [15A NCAC 02Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each 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 15A NCAC 02D .0521 if these records are not maintained.

### **Reporting** [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**L. Three natural gas-fired, natural gas supply line heaters (ID Nos. ES-HTR1, ES-HTR2 and ES-HTR3)**

**CONDITIONS FOR THIS EQUIPMENT ARE NOT SHIELDED PURSUANT TO 15A NCAC 02Q .0512(a).**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Particulate Matter	0.079 pound per million Btu heat input	15A NCAC 02D .0503
Sulfur Dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Hazardous Air Pollutants	See Section 2.1.L.4	15A NCAC 02D .1111 (40 CFR Part 63, Subpart DDDDD)
-	See Section 2.2.C.1	15A NCAC 02Q .0504

**1. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS**

- a. Emissions of particulate matter from the combustion of natural gas that are discharged from these sources (**ID Nos. ES-HTR1, ES-HTR2 and ES-HTR3**) into the atmosphere shall not exceed 0.081 pounds per million Btu heat input.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for emissions of particulate matter from the firing of natural gas in these sources (**ID Nos. ES-HTR1, ES-HTR2 and ES-HTR3**) to demonstrate compliance with 15A NCAC 02D .0503.

**2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of sulfur dioxide from these sources shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas in these sources.

**3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from these sources shall not be more than 20 percent opacity (except during startups, shutdowns, and malfunctions) 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.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02Q .0508(f)]

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

**4. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY  
(40 CFR PART 63, SUBPART DDDDD)**

**Applicability** [40 CFR 63.7485, §63.7490(d), §63.7499(l)]

- a. For new sources without a continuous oxygen trim system and with heat input capacity of less than 10 million Btu per hour, but greater than 5 million Btu per hour, in the *Unit designed to burn gas 1 subcategory*, 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 DDDDD "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" [Subpart DDDDD] and Subpart A "General Provisions".
  - i. The Permittee shall comply with Subpart DDDDD upon startup. [63.7495(a)]

**Definitions and Nomenclature** [§63.7575]

- b. For the purpose of this permit condition, the definitions and nomenclature contained in 40 CFR 63.7575 shall apply.

**40 CFR Part 63 Subpart A General Provisions** [§63.7565]

- c. The Permittee shall comply with the requirements of 40 CFR 63 Subpart A General Provisions according to the applicability of Subpart A to such sources as identified in Table 10 to Subpart DDDDD.

**Compliance Date** [§63.7510(g), §63.56(b)]

- d. The Permittee shall comply with this subpart upon startup of the process heaters.

**Notifications** [§63.7545]

- e. The Permittee shall submit an initial Notification of Compliance Status. The notification shall contain the following:
  - i. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, and description of the fuel(s) burned.
  - ii. The following certification of compliance:  
"This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR part 63 subpart DDDDD at this site according to complies with the required initial tune-up according to the procedures in §63.7540(a)(10)(i) through (vi)." [i.e., Sections 2.1.L.h through k]  
The notification must be signed by a responsible official and must be submitted within 60 days of the compliance date. [§ CFR 63.7545(e)]

**General Compliance Requirements** [§63.7505(a), §63.7500(a)(3)]

- f. At all times the affected unit(s) is operating, the Permittee shall be in compliance with the emission standards in Section 2.1.L.4.g, except during periods of startup and shutdown. [§63.7500(a)(3)]
- g. At all times, the Permittee shall operate and maintain any affected source (as defined in §63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

**Work Practice Standards** [15A NCAC 02Q .0508(f)]

- h. The Permittee shall conduct a biennial tune-up of the source(s) as specified below.
  - i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The Permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled or unscheduled unit shutdown;
  - ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
  - iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the Permittee may delay the inspection until the next scheduled unit shutdown);
  - iv. Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO<sub>x</sub> requirement to which the unit is subject; and
  - v. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable

CO analyzer.

[§63.7540(a)(11), §63.7500(e)]

- i. The Permittee shall demonstrate initial compliance with the applicable work practice standards in Table 3 to this subpart within the applicable biennial schedule as specified in §63.7515(d) following the initial compliance date. Thereafter, the applicable biennial tune-up is required to be completed as specified in §63.7515(d). [§63.7510(g)]
- j. Each biennial tune-up shall be conducted no more than 25 months after the previous tune-up. [§63.7515(d)]
- k. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [§63.7540(a)(13), §63.7515(g)]

**Recordkeeping Requirements** [15A NCAC 02Q .0508(f), §63.7555]

- l. The Permittee shall:
    - i. Keep a copy of each notification and report submitted to comply with Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status, or compliance report that has been submitted. [§63.7555(a)(1), §63.10(b)(2)(xiv)]
    - ii. Maintain on-site and submit, if requested by the Administrator, the tune-up report containing the information in paragraphs (A) through (C) below:
      - A. The concentrations of carbon monoxide in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
      - B. A description of any corrective actions taken as a part of the tune-up; and
      - C. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
- [§63.7540(a)(10)(vi)]
- m. The Permittee shall:
    - i. Maintain records in a form suitable and readily available for expeditious review;
    - ii. Keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record; and
    - iii. Keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee can keep the records offsite for the remaining 3 years.
- [§63.7560, §63.10(b)(1)]

**Reporting Requirements** [15A NCAC 02Q .0508(f), §63.7550(b)]

- n. The Permittee shall submit a biennial compliance report to the DAQ.
  - i. The first compliance report shall be postmarked on or before January 30, 2021 and cover the period from May 20, 2019 through December 31, 2020.
  - ii. The compliance reports shall also be submitted electronically to the EPA via the procedures in §63.7550(h).
- o. The compliance report must contain the following information:
  - i. Company name and address;
  - ii. Process unit information, emissions limitations, and operating parameter limitations;
  - iii. Date of report and beginning and ending dates of the reporting period;
  - iv. Include the date of the most recent tune-up for each unit required according to Section 2.1.F.5.g. Include the date of the most recent burner inspection if it was not done as scheduled and was delayed until the next scheduled or unscheduled unit shutdown; and
  - v. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. [§§63.7550(a) and (c), Table 9]

**M. Natural gas supply line pigging operation including fugitive emissions from pig receiver vent (ID No. ES-PIGGING) with associated temporary flare of natural gas from supply line (ID No. CD-PIG FLARE)**

**CONDITIONS FOR THIS EQUIPMENT ARE NOT SHIELDED PURSUANT TO 15A NCAC 02Q .0512(a).**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Sulfur Dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Toxic Air Pollutants	See Section 2.2.B.1	15A NCAC 02D .1100
-	See Section 2.2.C.1	15A NCAC 02Q .0504

**1. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of sulfur dioxide from these sources shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas in this source.

**2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from these sources shall not be more than 20 percent opacity (except during startups, shutdowns, and malfunctions) 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.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02Q .0508(f)]

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

**N. Coal pile and coal handling (ID No. ES-COALFUG) and Ash landfills and ash handling (ID No. ES-ASHLFFUG)**

**CONDITIONS FOR THIS EQUIPMENT ARE NOT SHIELDED PURSUANT TO 15A NCAC 02Q .0512(a).**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Fugitive Non-Process Dust Emissions	See Section 2.2 A.1.	15A NCAC 02D .0540
Toxic Air Pollutants	See Section 2.2.B.1	15A NCAC 02D .1100
-	See Section 2.2.C.1	15A NCAC 02Q .0504



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

### A. Limestone Receiving, Transfer, Storage, and Processing Equipment:

Limestone train unloading facility (ID No. ES-6 (RUL)), two limestone rail unloading hoppers (ID Nos. ES-6a (RULa) and ES-6b (RULb)), 60 inches wide limestone unloading belt feeder no. A (ID No. ES-7 (LUBFA)), 60 inches wide limestone unloading belt feeder no. B (ID No. ES-8 (LUBFB)), and associated baghouse (ID No. CD-RULBF),

48 inches wide limestone unloading conveyor (ID No. ES-9 (LCB1)), 48 inches wide limestone stack out conveyor (ID No. ES-11 (LCB2)), 40 inches wide limestone reclaim grate feeder (ID No. ES-12a (LPR)), 30 inches wide limestone reclaim conveyor (ID No. ES-12b (LCB3)), 30 inches wide limestone plant feed conveyor no. 1 (ID No. ES-14 (LCB4)), 30 inches wide limestone plant feed conveyor no. 2 (ID No. ES-16 (LCB5)), 30 inches wide limestone plant feed conveyor no. 3 (ID No. ES-18a (LCB6a)), 36 inches wide emergency limestone feeder conveyor (ID No. ES-18c (LCB6c)), limestone wet ball mill no. 1 (ID No. ES-24 (BM1)), and limestone wet ball mill no. 2 (ID No. ES-25 (BM2)),

Emergency limestone bucket elevator (ID No. ES-18b (ELBE)), 30 inches wide limestone silo fill conveyor no. 1 (ID No. ES-20 (S1LCB7)), 30 inches wide limestone silo fill conveyor no. 2 (ID No. ES-21 (S2LCB8)), limestone storage silo no. 1 (ID No. ES-22 (LS1)), limestone storage silo no. 2 (ID No. ES-23 (LS2)), and associated baghouse (ID No. CD-LPTTBF)

One limestone storage pile (ID No. F1)

Coal pile and coal handling (ID No. ES-COALFUG) and Ash landfills and ash handling (ID No. ES-ASHLFFUG)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Fugitive Non-Process Dust Emissions	Fugitive non-process dust emissions shall not cause or contribute to substantive complaints	15A NCAC 02D .0540

### State Enforceable Only

#### 1. 15A NCAC 02D .0540: PARTICULATES FROM FUGITIVE NON-PROCESS DUST EMISSION SOURCES

- a. For the purpose of this Rule the following definitions shall apply:
  - i. "Fugitive non-process dust emission" means particulate matter that is not collected by a capture system and is generated from areas such as pit areas, process areas, haul roads, stockpiles, and plant roads.
  - ii. "Substantive complaints" means complaints that are verified with physical evidence acceptable to the DAQ.
- b. The Permittee shall not cause or allow fugitive non-process dust emissions to cause or contribute to substantive complaints.
- c. If fugitive non-process dust emissions from a facility required to comply with this Rule causes or contributes to substantive complaints, the Permittee shall:
  - i. Within 30 days upon receipt of written notification from the Director of a second substantive complaint in a 12-month period, submit to the Director a written description of what has been done and what will be done to reduce fugitive non-process dust emissions from that part of the facility that caused the second substantive complaint;
  - ii. Within 90 days of receipt of written notification from the Director of a second substantive complaint in a 12-month period, submit to the Director a control plan as described in Paragraph (e) of this Rule; and
  - iii. Within 30 days after the Director approves the plan, be in compliance with the plan.
- d. The Director may require that the Permittee develop and submit a fugitive non-process dust control plan as described in

Paragraph e. of this Rule if:

- i. Ambient air quality measurements or dispersion modeling acceptable to the DAQ show violation or a potential for a violation of an ambient air quality standard for particulates in 15A NCAC 02D .0400 “Ambient Air Quality Standards;” or
- ii. If the DAQ observes excessive fugitive non-process dust emissions from the facility beyond the property boundaries.

The control plan shall be submitted to the Director no later than 90 days after notification. The facility shall be in compliance with the plan within 30 days after the Director approves the plan.

- e. The fugitive dust control plan shall:
  - i. Identify the sources of fugitive non-process dust emissions within the facility;
  - ii. Describe how fugitive non-process dust will be controlled from each identified source;
  - iii. Contain a schedule by which the plan will be implemented;
  - iv. Describe how the plan will be implemented, including training of facility personnel; and
  - v. Describe methods to verify compliance with the plan.
- f. The Director shall approve the plan if he finds that:
  - i. The plan contains all required elements in Paragraph (e) of this Rule;
  - ii. The proposed schedule contained in the plan will reduce fugitive non-process dust emissions in a timely manner
  - iii. The methods used to control fugitive non-process dust emissions are sufficient to prevent fugitive non-process dust emissions from causing or contributing to a violation of the ambient air quality standards for particulates; and
  - iv. The described compliance verification methods are sufficient to verify compliance with the plan.

If the Director finds that the proposed plan does not meet the requirements of this Paragraph he shall notify the Permittee of any deficiencies in the proposed plan. The Permittee shall have 30 days after receiving written notification from the Director to correct the deficiencies.
- g. If after a plan has been implemented, the Director finds that the plan inadequately controls fugitive non-process dust emissions; he shall require the Permittee to correct the deficiencies in the plan. Within 90 days after receiving written notification from the Director identifying the deficiency, the Permittee shall submit a revision to his plan to correct the deficiencies.

**B. Facility Wide Toxics Demonstration**

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	Emissions rates modeled to demonstrate compliance with acceptable ambient levels. <b>State Only Requirement</b>	15A NCAC 02D .1100

**STATE-ONLY REQUIREMENT**

**1. 15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS**

- a. Pursuant to 15A NCAC 02D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following permit limits shall not be exceeded:

Emission Source ID No.	Toxic Air Pollutant	Emission Limit		
		(lb/yr)	(lb/day)	(lb/hr)
ES-6 (RUL) ES-6a (RULa) ES-6b (RULb) ES-7 (LUBFA) ES-8(LUBFB)	Arsenic and Inorganic Arsenic Compounds	2.20E-02	-	-
	Beryllium	1.74E-02	-	-
	Cadmium	3.63E-02	-	-
	Manganese and compounds	-	8.47E-01	-
	Mercury Vapor	-	6.85E-05	-
	Nickel Metal	-	1.59E-02	-
ES-9 (LCB1)	Arsenic and Inorganic Arsenic Compounds	2.20E-02	-	-

Emission Source ID No.	Toxic Air Pollutant	Emission Limit		
		(lb/yr)	(lb/day)	(lb/hr)
	Beryllium	1.74E-02	-	-
	Cadmium	3.63E-02	-	-
	Manganese and compounds	-	8.47E-01	-
	Mercury Vapor	-	6.85E-05	-
	Nickel Metal	-	1.59E-02	-
ES-11 (LCB2)	Arsenic and Inorganic Arsenic Compounds	1.07E-03	-	-
	Beryllium	8.46E-04	-	-
	Cadmium	1.76E-03	-	-
	Manganese and compounds	-	4.12E-02	-
	Mercury Vapor	-	3.33E-06	-
	Nickel Metal	-	7.74E-04	-
F1	Arsenic and Inorganic Arsenic Compounds	3.04E+00	-	-
	Beryllium	2.40E+00	-	-
	Cadmium	5.01E+00	-	-
	Manganese and compounds	-	1.17E+02	-
	Mercury Vapor	-	9.47E-03	-
	Nickel Metal	-	2.20E+00	-
ES-12a (LPR)	Arsenic and Inorganic Arsenic Compounds	1.07E-03	-	-
	Beryllium	8.46E-04	-	-
	Cadmium	1.76E-03	-	-
	Manganese and compounds	-	4.12E-02	-
	Mercury Vapor	-	3.33E-06	-
	Nickel Metal	-	7.74E-04	-
ES-12b (LCB3)	Arsenic and Inorganic Arsenic Compounds	1.07E-03	-	-
	Beryllium	8.46E-04	-	-
	Cadmium	1.76E-03	-	-
	Manganese and compounds	-	4.12E-02	-
	Mercury Vapor	-	3.33E-06	-
	Nickel Metal	-	7.74E-04	-
ES-14 (LCB4)	Arsenic and Inorganic Arsenic Compounds	1.07E-03	-	-
	Beryllium	8.46E-04	-	-
	Cadmium	1.76E-03	-	-
	Manganese and compounds	-	4.12E-02	-
	Mercury Vapor	-	3.33E-06	-
	Nickel Metal	-	7.74E-04	-
ES-16 (LCB5)	Arsenic and Inorganic Arsenic Compounds	1.07E-03	-	-
	Beryllium	8.46E-04	-	-
	Cadmium	1.76E-03	-	-
	Manganese and compounds	-	4.12E-02	-
	Mercury Vapor	-	3.33E-06	-

Emission Source ID No.	Toxic Air Pollutant	Emission Limit		
		(lb/yr)	(lb/day)	(lb/hr)
	Nickel Metal	-	7.74E-04	-
ES-18a (LCB6a)	Arsenic and Inorganic Arsenic Compounds	1.07E-03	-	-
	Beryllium	8.46E-04	-	-
	Cadmium	1.76E-03	-	-
	Manganese and compounds	-	4.12E-02	-
	Mercury Vapor	-	3.33E-06	-
	Nickel Metal	-	7.74E-04	-
ES-18b (ELBE) ES-18c (LCB6c) ES-20 (S1LCB7) ES-21 (S2LCB8) ES-22 (LS1) ES-23 (LS2)	Arsenic and Inorganic Arsenic Compounds	3.15E-02	-	-
	Beryllium	2.49E-02	-	-
	Cadmium	5.19E-02	-	-
	Manganese and compounds	-	1.21E+00	-
	Mercury Vapor	-	9.80E-05	-
	Nickel Metal	-	2.28E-02	-
ES-S1 ES-FTLD1	Arsenic and Inorganic Arsenic Compounds	8.48E+00	-	-
	Beryllium	9.22E+00	-	-
	Cadmium	1.24E+00	-	-
	Soluble Chromate Compounds, as Chromium (VI) Equivalent	-	3.37E-01	-
	Manganese and compounds	-	1.63E+01	-
	Mercury Vapor	-	4.01E-03	-
ES-S2ES-FTLD2	Nickel Metal	-	3.13E+00	-
	Arsenic and Inorganic Arsenic Compounds	8.48E+00	-	-
	Beryllium	9.22E+00	-	-
	Cadmium	1.24E+00	-	-
	Soluble Chromate Compounds, as Chromium (VI) Equivalent	-	3.37E-01	-
	Manganese and compounds	-	1.63E+01	-
	Mercury Vapor	-	4.01E-03	-
ES-FTLW1 ES-FTLW2	Nickel Metal	-	3.13E+00	-
	Arsenic and Inorganic Arsenic Compounds	1.38E-02	-	-
	Beryllium	1.50E-02	-	-
	Cadmium	2.02E-03	-	-
	Soluble Chromate Compounds, as Chromium (VI) Equivalent	-	5.46E-04	-
	Manganese and compounds	-	2.64E-02	-
	Mercury Vapor	-	6.49E-06	-
ES-CCONV2 ES-CCONV6 ES-CCONV7 ES-CCONV8	Nickel Metal	-	5.08E-03	-
	Arsenic and Inorganic Arsenic Compounds	1.56E-01	-	-
	Beryllium	2.97E-01	-	-
	Cadmium	3.61E-02	-	-
	Manganese and compounds	-	3.05E-01	-

Emission Source ID No.	Toxic Air Pollutant	Emission Limit		
		(lb/yr)	(lb/day)	(lb/hr)
	Mercury Vapor	-	1.16E-03	-
	Nickel Metal	-	1.05E-01	-
ES-TSU3&4	Arsenic and Inorganic Arsenic Compounds	1.48E+00	-	-
	Beryllium	1.61E+00	-	-
	Cadmium	2.17E-01	-	-
	Soluble Chromate Compounds, as Chromium (VI) Equivalent	-	5.88E-02	-
	Manganese and compounds	-	2.84E+00	-
	Mercury Vapor	-	6.99E-04	-
	Nickel Metal	-	5.47E-01	-
ES-PIGGING	Ethyl Mercaptan	-	-	2.71E+00
	n-Hexane	-	5.46E+03	-
ES-WWTF Silo	Arsenic and Inorganic Arsenic Compounds	4.35E-03	-	-
	Beryllium	4.56E-03	-	-
	Cadmium	7.47E-03	-	-
	Manganese and compounds	-	8.18E-02	-
	Mercury Vapor	-	1.17E-05	-
	Nickel Metal	-	3.28E-03	-
ES-WWTFBR	Hydrogen Sulfide	-	3.64E+01	-
ES-COALFUG	Arsenic and Inorganic Arsenic Compounds	1.78E+02	-	-
	Beryllium	3.40E+02	-	-
	Cadmium	4.13E+01	-	-
	Manganese and compounds	-	3.49E+02	-
	Mercury Vapor	-	1.33E+00	-
	Nickel Metal	-	1.20E+02	-
ES-ASHLFFUG	Ammonia	-	-	1.31E+01
	Arsenic and Inorganic Arsenic Compounds	1.07E+03	-	-
	Beryllium	1.16E+03	-	-
	Cadmium	1.56E+02	-	-
	Soluble Chromate Compounds, as Chromium (VI) Equivalent	-	4.23E+01	-
	Manganese and compounds	-	2.04E+03	-
	Mercury Vapor	-	5.03E-01	-
	Nickel Metal	-	3.94E+02	-
I-6	Benzene	5.73E+00	-	-
	n-Hexane	-	5.60E-03	-
I-12	Benzene	2.88E+01	-	-
	n-Hexane	-	2.83E-02	-
I-13	Benzene	1.58E+01	-	-
	n-Hexane	-	1.55E-02	-
I-33	Ammonia	-	-	3.76E-01

Emission Source ID No.	Toxic Air Pollutant	Emission Limit		
		(lb/yr)	(lb/day)	(lb/hr)
I-72	Arsenic and Inorganic Arsenic Compounds	2.04E+00	-	-
	Cadmium	4.07E+00	-	-
	Manganese and compounds	-	1.38E+02	-
	Mercury Vapor	-	8.74E-02	-
	Nickel Metal	-	1.02E+00	-
I-86	Arsenic and Inorganic Arsenic Compounds	1.07E-03	-	-
	Beryllium	8.46E-04	-	-
	Cadmium	1.76E-03	-	-
	Manganese and compounds	-	4.12E-02	-
	Mercury Vapor	-	3.33E-06	-
	Nickel Metal	-	7.74E-04	-
I-139 / I-144	Arsenic and Inorganic Arsenic Compounds	1.24E+00	-	-
	Beryllium	1.34E+00	-	-
	Cadmium	1.81E-01	-	-
	Soluble Chromate Compounds, as Chromium (VI) Equivalent	-	4.91E-02	-
	Manganese and compounds	-	2.37E+00	-
	Mercury Vapor	-	5.83E-04	-
	Nickel Metal	-	4.57E-01	-

**Monitoring/Recordkeeping/Reporting**

- b. No monitoring, recordkeeping, or reporting shall apply to any emission sources included in Section 2.2 B.1.a above.

**STATE-ONLY REQUIREMENT**

**2. 15A NCAC 02Q .0711: EXISTING FACILITIES AND SIC CALLS for TOXIC AIR POLLUTANT EMISSIONS LIMITATION REQUIREMENT**

- a. As of May 3, 2019 emissions of toxic air pollutants have been demonstrated on a facility-wide basis (excluding those sources exempt under 15A NCAC 02Q .0702 "Exemptions") that each of the toxic air pollutants (TAPs) emitted from all sources at the facility are either below its respective toxic permit emission rates (TPER) listed in 15A NCAC 02Q .0711 - "Emission Rates Requiring a Permit" or the TAPs are in compliance with 15A NCAC 02D .1100 "Control of Toxic Air Pollutants" as described elsewhere in this permit.
- b. The facility shall be operated and maintained in such a manner that any new, existing or increased actual emissions of any TAP listed in 15A NCAC 02Q .0711 or in this permit from all sources at the facility (excluding those sources exempt under 15A NCAC 02Q .0702 "Exemptions"), including fugitive emissions and emission sources not otherwise required to have a permit, will not exceed its respective TPER listed in 15A NCAC 02Q .0711 without first obtaining an air permit to construct or operate.
- c. PRIOR to exceeding any of the TPERs listed in 15A NCAC 02Q .0711, the Permittee shall be responsible for obtaining an air permit to emit TAPs and for demonstrating compliance with the requirements of 15A NCAC 02D .1100 "Control of Toxic Air Pollutants".
- d. The Permittee shall maintain at the facility records of operational information sufficient for demonstrating to the Division of Air Quality staff that actual TAPs are less than the rate listed in 15A NCAC 02Q .0711.
- e. The TPER table listed below is provided to assist the Permittee in determining when an air permit is required pursuant to 15A NCAC 02Q .0711 and may not represent all TAPs being emitted from the facility. This table will be updated at such time as the permit is either modified or renewed.

Pollutant	TPERs Limitations			
	Carcinogens (lb/yr)	Chronic Toxicants (lb/day)	Acute Systemic Toxicants (lb/hr)	Acute Irritants (lb/hr)
p-dichlorobenzene				16.8
toluene		98.0		14.4

**C. One No. 2 fuel oil/natural gas/coal-fired electric utility boiler equipped with a low NOx concentric firing system, separated overfire air/lowered fired low-NOx technologies (SOFA/LOFIR), and alkaline-based fuel additive (ID No. ES-1) and associated selective non-catalytic reduction system (SNCR) NOx reduction system (ID No. CD-1c (U1SNCR)), sulfur trioxide flue gas conditioning system (ID No. CD-2), electrostatic precipitator (ID No. CD-3), and wet flue gas desulfurization system consisting of spray tower absorber (ID No. CD-U1/2FGD)**

**One No. 2 fuel oil/natural gas/coal-fired electric utility boiler equipped with a low NOx concentric firing system, separated overfire air/lowered fired low-NOx technologies (SOFA/LOFIR), and alkaline-based fuel additive (ID No. ES-2) and associated selective non-catalytic reduction system (SNCR) NOx reduction system (ID No. CD-4c (U2SNCR)), sulfur trioxide flue gas conditioning system (ID No. CD-5), electrostatic precipitator (ID No. CD-6), and wet flue gas desulfurization system consisting of spray tower absorber (ID No. CD-U1/2FGD)**

**One No. 2 fuel oil/natural gas/coal-fired electric utility boiler equipped with a low NOx concentric firing system, separated overfire air/lowered fired low-NOx technologies (SOFA/LOFIR), and alkaline-based fuel additive (ID No. ES-3) and associated selective catalytic reduction system (SCR) NOx reduction system (ID No. CD-7c (SCR)), electrostatic precipitator (ID No. CD-9 (ESPnew)), and wet flue gas desulfurization system consisting of spray tower absorber (ID No. CD-U3FGD)**

**One No. 2 fuel oil/natural gas/coal-fired electric utility boiler equipped with a low NOx concentric firing system, separated overfire air/lowered fired low-NOx technologies (SOFA/LOFIR), and alkaline-based fuel additive (ID No. ES-4) and associated selective non-catalytic reduction system (SNCR) NOx reduction system (ID No. CD-11c (U4SNCR)), sulfur trioxide flue gas conditioning system (ID No. CD-12), powdered activated carbon system (ID No. CD-U4ActC), electrostatic precipitator (ID No. CD-13 (ESPnew)), and wet flue gas desulfurization system consisting of spray tower absorber (ID No. CD-U4FGD)**

**Three natural gas-fired, natural gas supply line heaters (ID Nos. ES-HTR1, ES-HTR2 and ES-HTR3)**

**Natural gas supply line pigging operation including fugitive emissions from pig receiver vent (ID No. ES-PIGGING) with associated temporary flare of natural gas from supply line (ID No. CD-PIG FLARE)**

**Coal pile and coal handling (ID No. ES-COALFUG) and Ash landfills and ash handling (ID No. ES-ASHLFFUG)**

**1. 15A NCAC 02Q .0504: OPTION FOR OBTAINING CONSTRUCTION AND OPERATION PERMIT**

**Permitting** [15A NCAC 02Q .0504(d)]

- a. Pursuant to 15A NCAC 02Q .0501(b)(2) or (c)(2), for completion of the two-step significant modification process initiated by Application No. (1800073.18B), the Permittee shall file an amended application following the procedures of Section 15A NCAC 02Q .0500 within one year from the date the first of these sources (**ID Nos. ES-1 through ES-4, ES-HTR1, ES-HTR2, ES-HTR3 or ES-PIGGING**) begins to burn natural gas.

**Reporting** [15A NCAC 02Q .0508(f)]

- b. The Permittee shall notify the Regional Office in writing of the date of beginning of burning natural gas in these sources (**ID Nos. ES-1, ES-2, ES-HTR1, ES-HTR2, ES-HTR3, ES-PIGGING, ES-COALFUG and ES-ASHLFFUG**), postmarked no later than 30 days after such date.



### 2.3 - Permit Shield for Non-Applicable Requirements

This condition is to clarify that issuance of this permit provides no shield from the Act, or regulations promulgated thereunder, including state regulations, pertaining to requirements of the New Source Performance Standards or major or minor new source preconstruction review requirements, which EPA is currently alleging or may allege in the future as having been violated by the Permittee. The permit may be subject to reopening to include a compliance plan and schedule addressing any judicial or administrative order establishing new applicable requirements arising out of past or ongoing noncompliance with those provisions for any affected emission units.

The Permittee is shielded from the following non-applicable requirements as of the date of issuance of this permit based on information furnished with all previous applications. This shield does not apply to future modifications or changes in the method of operation. [15A NCAC 02Q .0512(a)(1)(B)]

#### A. The following requirements are not applicable to boilers (ID Nos. ES-1 through ES-4):

1. 15A NCAC 02D .0537, "Control of Mercury Emissions," is not applicable because it does not apply to fuel combustion.
2. 15A NCAC 02D .0521(d), "Control of Visible Emissions," visible emissions shall not exceed 20% opacity, is not applicable because these sources were manufactured as of July 1, 1971.
3. 15A NCAC 02D .0607, "Large Wood and Wood-Fossil Fuel Combination Units", does not apply as these sources do not combust wood and wood-fossil fuels.
4. 15A NCAC 02D .1110, "National Emission Standards for Hazardous Air Pollutants" promulgated in 40 CFR Part 61, is not applicable because no NESHAP promulgated pursuant to 40 CFR Part 61 applies.
5. 15A NCAC 02D .0900, "Volatile Organic Compounds" does not apply to these sources pursuant to 02D .0902(e), (f) or (g).
6. 15A NCAC 02D .0903, Recordkeeping: Reporting: Monitoring does not apply to these sources because there are no rules applicable to these sources in 02D .0900.
7. 15A NCAC 02D .0912, "General Provisions on Test Methods and Procedures," is not applicable because there are no rules applicable to these sources in 02D .0900.

#### B. The following requirements are not applicable to the storage tanks listed in the table below:

Emission Source I.D.	Emission Source Description
I-7	500,000 gallon above ground main No. 2 fuel-oil storage tank and associated unloading stations, contract awarded on tank in 1973
I-7.1	500,000 gallon above ground main No. 2 fuel-oil storage tank and associated unloading stations, contract awarded on tank in 1973
I-8	30,000 gallon fuel oil storage tank at coal handling area
I-9	500 gallon capacity lube oil storage tank at coal handling tractor shed
I-9.1	750 gallon capacity lube oil storage tank at coal handling tractor shed
I-9.2	1000 gallon capacity lube oil storage tank at coal handling tractor shed
I-10	400 gallon lube oil storage tank for car dumper
I-11	75 gallon storage tank for coal handling knuckle boom
I-12	1000 gallon above ground gasoline storage tank
I-13	550 gallon above ground gasoline storage tank (Mosquito Control Facility)
I-20	10,000 gallon turbine oil storage tank used for maintenance on Unit 1
I-20.1	10,000 gallon turbine oil storage tank used for maintenance on Unit 2
I-21	12,000 gallon turbine oil storage tank used for maintenance on Units 3 & 4
I-84	1600 gallon above ground diesel fuel oil storage tank (Emergency Generator)
I-85	190 gallon above ground diesel fuel oil storage tank (Emer. Air Compressor)
I-93	220 gallon oil storage tank in Coal Handling Tractor Shed

<b>Emission Source I.D.</b>	<b>Emission Source Description</b>
I-127	100 gallon above ground diesel fuel oil storage tank (Emergency Quench Pump)
I-129	150 gallon above ground diesel fuel oil storage tank (Emergency Landfill Generator)
I-138	Wastewater treatment facility hydrochloric acid storage tank (10,000 gallon capacity)
I-147	400 gallon diesel fuel oil storage tank (Landfill 200 kW diesel emergency generator)

1. 15A NCAC 02D .0900, "Volatile Organic Compounds", does not apply to these sources as they meet none of the applicability requirements pursuant to 02D .0902 (b), (e), (f) or (g).
2. 15A NCAC 02D .0903, Recordkeeping: Reporting: Monitoring does not apply to these sources because there are no rules applicable to these sources in 02D .0900.
3. 15A NCAC 02D .0912, "General Provisions on Test Methods and Procedures," is not applicable because there are no rules applicable to these sources in 02D .0900.

## 2.4 - Phase II Acid Rain Permit Requirements

ORIS code: 2727

### A. Statement of Basis

Statutory and Regulatory Authorities: In accordance with the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended and Titles IV and V of the Clean Air Act, the Department of Environment and Natural Resources, Division of Air Quality issues this permit pursuant to Title 15A North Carolina Administrative Codes, Subchapter 02Q .0400 and 02Q .0500, and other applicable Laws.

### B. SO<sub>2</sub> Allowance Allocations and NO<sub>x</sub> Requirements for each affected unit

#### SO<sub>2</sub> Allowance Allocations

Emission Source ID No.	Emission Source Description	SO <sub>2</sub> Allowances
ES-1	Unit 1	The number of allowances of sulfur dioxide is allocated to Phase II-affected units by U.S. EPA under Tables 2, 3, or 4 of 40 CFR Part 73 and may change. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA.
ES-2	Unit 2	
ES-3	Unit 3	
ES-4	Unit 4	
		Neither of the aforementioned conditions necessitates a revision to the

#### NO<sub>x</sub> Requirements

Pursuant to 40 CFR 76.11, the Division of Air Quality approves a NO<sub>x</sub> emissions averaging plan for the following units, effective starting with calendar year 2015.

Under the plan, the actual Btu-weighted annual average NO<sub>x</sub> emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO<sub>x</sub> emission rate for the same units had they each been operated, during the same period of time, in compliance with the individual applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for the plan year, then this unit shall be deemed to be in compliance for the year with its alternative contemporaneous annual emission limitation and annual heat input limit.

If the designated representative cannot make the above demonstration (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) for the plan year and if a unit fails to meet its annual average alternative contemporaneous emission limitation or applicable heat input limit as shown in the table below, then excess emissions of nitrogen oxides occur during the year at this unit. A penalty for excess emissions will be assessed in accordance with 40 CFR 77.6.

In addition to the described NO<sub>x</sub> compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO<sub>x</sub> compliance plan and requirements covering excess emissions.

Emission Source ID No.	Emission Source Description	Emission Limitation pursuant to 40 CFR 76.5, 76.6, or 76.7 (lb/MMBtu)	Annual Average Alternative Contemporaneous Emission Limitation (lb/MMBtu)	Maximum Annual Heat Input Limit (MMBtu/yr)	Minimum Annual Heat Input Limit (MMBtu/yr)
ES-1	Unit 1	0.40	0.450	41,662,560	NA
ES-2	Unit 2	0.40	0.450	39,787,920	NA

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Emission Limitation pursuant to 40 CFR 76.5, 76.6, or 76.7 (lb/MMBtu)</b>	<b>Annual Average Alternative Contemporaneous Emission Limitation (lb/MMBtu)</b>	<b>Maximum Annual Heat Input Limit (MMBtu/yr)</b>	<b>Minimum Annual Heat Input Limit (MMBtu/yr)</b>
ES-3	Unit 3	0.40	0.250	NA	16,438,140
ES-4	Unit 4	0.40	0.450	65,577,360	NA

### **C. Comments, Notes and Justifications**

None.

### **D. Phase II Permit Applications (attached)**

The permit applications submitted for this facility, as approved by the Department of Environmental Quality, Division of Air Quality, are part of this permit and are included as Attachments. The owners and operators of these Phase II acid rain sources must comply with the standard requirements and special provisions set forth in the following attached applications:

Acid Rain Permit Application dated January 27, 2016  
Phase II NO<sub>x</sub> Compliance Plan dated June 23, 2015  
Phase II NO<sub>x</sub> Averaging Plan dated June 23, 2015

## SECTION 3 - GENERAL CONDITIONS (version 5.5, 08/25/2020)

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

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]

1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
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 02Q .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 02Q .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 02Q .0507(e) and 02Q .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 02Q .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 02Q .0514]  
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]  
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.
3. Minor Permit Modifications [15A NCAC 02Q .0515]  
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.
4. Significant Permit Modifications [15A NCAC 02Q .0516]  
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.
5. Reopening for Cause [15A NCAC 02Q .0517]  
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .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 02Q .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 02Q .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 02Q .0523(c)]  
To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

I.A **Reporting Requirements for Excess Emissions and Permit Deviations** [15A NCAC 02D .0535(f) and 02Q .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 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. (*Note: Definitions of excess emissions under 02D .1110 and 02D .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 02D .0524), NESHAPS (15A NCAC 02D .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 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
  - a. Pursuant to 15A NCAC 02D .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 02D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 02Q .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 02D .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 02D .0535**

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .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 02D .0535(c)(1) through (7).
2. 15A NCAC 02D .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 02Q .0508(e) and 02Q .0513(b)]

This 15A NCAC 02Q .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 02Q .0500 renewal application is submitted at least six months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .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 02Q .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 02Q .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 02Q .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 02Q .0508(f) and 02Q .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 02Q .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 02Q .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 02Q .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 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

**S. Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .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 02Q .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 02Q .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 02Q .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 02Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .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 02Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .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 02Q .0107 and 02Q .0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .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 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .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 02Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 02Q .0507(d)(3)]

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

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(d)]

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 02Q .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 02Q .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 02D .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 02D .0300.

HH. **Registration of Air Pollution Sources** [15A NCAC 02D .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 02D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 02D .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 02D .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 02Q .0508(i)(16)]

Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .1110, or .1111 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance for emission sources subject to Rules .0524, .1110, or .1111, the Permittee shall provide and submit all notifications, conduct all testing, and submit all test reports in accordance with the requirements of 15A NCAC 02D .0524, .1110, or .1111, as applicable. Otherwise, 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 02D .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:
    - i. 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.
    - ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
    - iii. 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 02D .2600 has precedence over all other tests.

**KK. Reopening for Cause [15A NCAC 02Q .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 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .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 02Q .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 02Q .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. When permitted equipment is not in operation, the requirements for testing, monitoring, and recordkeeping are suspended until operation resumes.

**MM. Fugitive Dust Control Requirement [15A NCAC 02D .0540]**

As required by 15A NCAC 02D .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 02D .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 02Q .0501 and .0523]**

1. For modifications made pursuant to 15A NCAC 02Q .0501(b)(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 02Q .0501(c)(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 02Q .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 02Q .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 02Q .0518 begins at the end of the 45-day EPA review period.

**ATTACHMENT****List of Acronyms**

<b>AOS</b>	Alternative Operating Scenario
<b>BACT</b>	Best Available Control Technology
<b>BAE</b>	Baseline Actual Emissions
<b>Btu</b>	British thermal unit
<b>CAA</b>	Clean Air Act
<b>CAM</b>	Compliance Assurance Monitoring
<b>CEM</b>	Continuous Emission Monitor
<b>CFR</b>	Code of Federal Regulations
<b>CSAPR</b>	Cross-State Air Pollution 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>GHGs</b>	Greenhouse Gases
<b>HAP</b>	Hazardous Air Pollutant
<b>LAER</b>	Lowest Achievable Emission Rate
<b>MACT</b>	Maximum Achievable Control Technology
<b>NAA</b>	Non-Attainment Area
<b>NAAQS</b>	National Ambient Air Quality Standards
<b>NCAC</b>	North Carolina Administrative Code
<b>NCGS</b>	North Carolina General Statutes
<b>NESHAP</b>	National Emission Standards for Hazardous Air Pollutants
<b>NO<sub>x</sub></b>	Nitrogen Oxides
<b>NSPS</b>	New Source Performance Standard
<b>NSR</b>	New Source Review
<b>OAH</b>	Office of Administrative Hearings
<b>PAE</b>	Projected Actual Emissions
<b>PAL</b>	Plantwide Applicability Limitation
<b>PM</b>	Particulate Matter
<b>PM<sub>2.5</sub></b>	Particulate Matter with Nominal Aerodynamic Diameter of 2.5 Micrometers or Less
<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>PTE</b>	Potential to Emit
<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>TAP</b>	Toxic Air Pollutant
<b>tpy</b>	Tons Per Year
<b>VOC</b>	Volatile Organic Compound

**ATTACHMENT**

Acid Rain Permit Application dated January 27, 2016

**ATTACHMENT**

Phase II NO<sub>x</sub> Compliance Plan dated June 23, 2015



**ATTACHMENT**

Phase II NO<sub>x</sub> Averaging Plan dated June 23, 2015