



North Carolina Department of Environment and Natural Resources

Division of Air Quality

Beverly Eaves Perdue
Governor

Sheila C. Holman
Director

Dee Freeman
Secretary

February X, 2012

Ms. Anitra J. Collins
Vice President of Mill Operations
KapStone Kraft Paper Corporation
100 Gaston Road
Roanoke Rapids, North Carolina 27870

SUBJECT: Air Quality Permit No. 01649T50
Facility ID: 4200007
KapStone Kraft Paper and Packaging Corporation
Roanoke Rapids, Halifax County, North Carolina
Fee Class: Title V

Dear Ms. Collins:

In accordance with your completed Air Quality Permit Application for a significant permit modification received September 1, 2011, we are forwarding herewith Air Quality Permit No. 01649T50 to KapStone Kraft Paper and Packaging Corporation, Roanoke Rapids, North Carolina authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 2Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

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

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of 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
217 West Jones St., Raleigh, North Carolina 27603
Phone: 919-707-8405 / FAX 919-715-0717 / Internet: www.ncair.org

One
North Carolina
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Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

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

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of GS 143-215-108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of GS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in GS 143-215.114A and 143-215.114B.

This Air Quality Permit shall be effective from February X, 2012 until March 31, 2012, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Ms. Jenny Kelvington, P.E. at (919) 707-8481.

Sincerely yours,

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

Enclosure

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

ATTACHMENT to Permit No. 01649T50

Changes to the Title V permit (01649T49) are as follows:

Pages	Sections	Description of Changes
Cover	-	Amended permit revision numbers and all dates
All	Page Headers	Amended permit revision number
8	1.0	Added the No. 4 Package Boiler – Natural gas/No. 2 fuel oil-fired boiler (245 million Btu per hour nominal heat input; ES-11-CU-035) to the list of permitted sources.
4, 6, 7, and 9	1.0	Added the following previously insignificant activities, now subject to toxic emission limits, to the list of permitted sources: Combined Reject Tank (ES-03-TK-037) Lime Kiln Precoat Filter Vacuum Pump Vent (ES-09-PU-016) Diesel-fired lime kiln pony motor (ES-09-PU-017) Three high density brownstock storage tank (ES-12-TK-001, -002, and -003) Primary Causticizer (ES-10-PU-023) Diesel-fired fire water pump (ES-FP-001) Diesel-fired recovery/utility emergency generator (ES-EG-001) Diesel-fired emergency lighting generator (ES-EG-002) Diesel-fired emergency lighting generator (ES-EG-003)
15, 17, 23, 26, 38, 47, and 49	2.1.F, H, I, K, L, and M	Added 2D .1100 and 2Q .0711 to the list of applicable requirements.
38-46	2.1.K	Added permit requirements for the No. 4 Package Boiler.
46	2.1.K.7	Added PSD avoidance condition for the Nos. 2, 3, and 4 Package Boilers.
47	2.1.L.1.a	Lowered the particulate emission limit from 0.17 to 0.16 for the four temporary boilers.
52	2.1.N.	Added permit requirements for the fire water pump and the three emergency generators.
53-54	2.1.M.	Added permit requirements for the lime kiln pony motor.
64-68	2.2.D.1	Revised toxic air pollutant emissions limits to the modeled rates in the facility wide compliance demonstration approved December 1, 2011.
69	2.2.D.2	Separated 2Q .0711 permit requirements from 2D .1100 requirements and added TPERs for nine additional toxic air pollutants.
N/A	2.2.E	Removed the requirement to submit a permit application for a facility wide compliance demonstration for air toxics.

Insignificant Activities associated with Permit No. 01649T50
Pursuant to 15A NCAC 2Q .0503(8)

	Emission Source I.D.	Emission Source Description
1	G0101-I	Woodyard Area Insignificant Units
2	G0209-I	Digester Area Insignificant Units
3	G0315-I	Washer Area Insignificant Units
4	G0720-I	Evaporator Area Insignificant Units
5	G0829-I	Recovery Area Insignificant Units
6	G0937-I	Lime Kiln Area Insignificant Units
7	G1043-I	Causticizing Area Insignificant Units
8	G1158-I	Power Boiler Area Insignificant Units
9	G1263-I	Paper Machine Area Insignificant Units
10	G2073-I	Turpentine Area Insignificant Units
11	G2178-I	Tall Oil Area Insignificant Units
12	G2384-I	Mill Area Insignificant Units
13	ES-10-PU-003	Dregs Mixer Tank
14	ES-Mtanks	Miscellaneous Fuel and Hydraulic Oil Tanks
15	NA	Maintenance Area paper machine roll grinder
16	I-11-TK-041	one ultra low sulfur No. 2 fuel oil storage tank (13,000 gallons capacity)

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

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

Division of Air Quality



AIR QUALITY PERMIT

Permit No.	Replaces Permit No.	Effective Date	Expiration Date
01649T50	01649T49	February X, 2012	March 31, 2012

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

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

Permittee: **KapStone Kraft Paper Corporation**

Facility ID: 05/42/00007
Facility Site Location: 100 Gaston Road
City, County, State, Zip: Roanoke Rapids, Halifax County, NC 27870

Mailing Address: 100 Gaston Road
City, State, Zip: Roanoke Rapids, North Carolina 27870

Application Number: 4200007.11B
Complete Application Date: September 1, 2011
Primary SIC Code: 2611 and 2612

Division of Air Quality,
Regional Office Address: Raleigh Regional Office
3800 Barrett Drive
Raleigh, North Carolina 27609

Permit issued this the Xth day of February 2012.

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

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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:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
*G101 - Woodyard Miscellaneous Source Groups			
ES-01-PU-MISC.1 through ES-01-PU-MISC.9	includes saws, debarking operations, chip storage, chip transfer, chip screening, bark storage, bark hogging, bark transfer, and vehicular traffic.	NA	NA
G0104 ES-01-PU-013	Sawdust Silo Group Sawdust Silo	ES-01-PU-113	Sawdust silo transfer cyclone (126 inches in diameter)
ES-01-PU-014	Portable Low Sulfur Diesel-Fired Log Chipper (1,200 hp maximum rating)	NA	NA
ES-01-PU-015**	Portable Low Sulfur Diesel-Fired Bark Grinder (1,200 hp maximum rating)	NA	NA
G0208 - Digester System			
ES-02-PU-003 through ES-02-PU-012, and ES-02-PU-014 through ES-02-PU-019 MACT S	twelve (12) batch digesters: No. 7 Digester through No. 12 digester, and No.14 through No. 19 Digester	ES-09-PU-004 ES-11-CU-001 ES-02-PU-028 ES-16-AS-020	Lime Kiln No. 1 Power Boiler via vacuum stripper aerated stabilization basin
ES-02-PU-025 MACT S	Secondary Condenser		
ES-02-PU-024 MACT S	Hot Water Accumulator		
ES-02-PU-015 MACT S	A-Line Blow Tank		
ES-02-PU-016 MACT S	B-Line Blow Tank		
ES-02-PU-017 MACT S	C-Line Blow Tank		
ES-02-PU-018 MACT S	A-Line Cyclone		
ES-02-PU-019 MACT S	B-Line Cyclone		
ES-02-PU-020 MACT S	C-Line Cyclone		
ES-02-ST-003-001*	Digester Ventilation System*	21-CD-004-001	Tall Oil Caustic Packed Tower Scrubber (nominal minimum pH of 10 for scrubber effluent)

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
G0210 - Stripper System			
ES-02-PU-028 ES-02-PU-026 ES-02-PU-027 NSPS Subpart BB MACT Subpart S	Stripper Column Accumulator Overflow Tank Foul Condensate Tank	ES-09-PU-004 or ES-11-CU-001 ES-02-PU-028 ES-16-AS-020	Lime Kiln via closed LVHC NCG collection system No. 1 Power Boiler via closed LVHC NCG collection system Foul condensates controlled by the vacuum stripper and the waste treatment aerated stabilization basin
G0314 -Brown Stock Washing System			
ES-03-PU-011 to ES-03-PU-013 ES-03-PU-022 to ES-03-PU-024 MACT Subpart S	B-line 1 st Stage to 3 rd Stage Brownstock Washers C-line 1 st Stage to 3 rd Stage Brownstock Washers	ES-11-CU-001	No. 1 Power Boiler
ES-03-PU-003	A-line 1 st Stage Brownstock Washer	NA	NA
ES-03-PU-004	A-line 2 nd Stage Brownstock Washer	NA	NA
ES-03-PU-005	A-line 3 rd Stage Brownstock Washer	NA	NA
ES-03-PU-006	A-line 4 th Stage Brownstock Washer	NA	NA
ES-03-TK-027	A-line 1 st Stage Filtrate Tank	NA	NA
ES-03-TK-028	A-line 2 nd Stage Filtrate Tank	NA	NA
ES-03-TK-029	A-line 3 rd Stage Filtrate Tank	NA	NA
ES-03-TK-030	A-line 4 th Stage Filtrate Tanks	NA	NA
ES-03-TK-031	A-line Foam Tower	NA	NA
ES-03-TK-032	B-line 1 st Stage Filtrate Tank	NA	NA
ES-03-TK-033	B-line 2 nd Stage Filtrate Tank	NA	NA
ES-03-TK-034	B-line 3 rd Stage Filtrate Tank	NA	NA
ES-03-TK-035	B-line Foam Tower	NA	NA
ES-03-TK-037**	Combined Reject Tank	NA	NA
ES-03-TK-038	C-line 1 st Stage Filtrate Tank	NA	NA
ES-03-TK-039	C-line 2 nd Stage Filtrate Tank	NA	NA

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-03-TK-040	C-line 3 rd Stage Filtrate Tank	NA	NA
ES-03-TK-041	C-line Foam Tower	NA	NA
ES-03-TK-SRT	Screen Rejects Tank	NA	NA
G0719-Evaporator Group			
ES-07-PU-004 MACT S	B-Line Evaporators	ES-09-PU-004 or ES-11-CU-001	Lime Kiln via closed LVHC NCG collection system
ES-07-PU-026 MACT S	B-Line Surface Condenser		
ES-07-PU-007 MACT S	Condenser Seal Tank	ES-02-PU-028	No. 1 Power Boiler via closed LVHC NCG collection system
ES-07-PU-008 MACT S	B-Line Hotwell	ES-16-AS-020	Foul condensates controlled by the vacuum stripper and the waste treatment aerated stabilization basin
ES-07-PU-009 MACT S	C-Line Evaporators		
ES-07-PU-024 MACT S	C-Line Concentrators		
ES-07-PU-027 MACT S	C-Line Surface Condenser		
ES-07-PU-013 MACT S	C-Line Hotwell		
G0720 - Evaporator Area Miscellaneous Units			
ES-07-TK-WLTs*	Weak Black Liquor Storage*	NA	NA
G0827-No. 7 Recovery Furnace Group			
ES-08-PU-012 PSD NSPS Subpart BB MACT Subpart MM	No. 7 Recovery Furnace - black liquor solids/ultra low sulfur No. 2 fuel oil blended with black liquor solids/No. 6 fuel oil/No. 4 fuel oil-fired recovery furnace (3.20 million pounds of black liquor solids per day /504 million Btu per hour maximum permitted heat input rate from firing fuel oil)	08-CD-012-001	single stage, cold-side dry bottom electrostatic precipitator (140,000 square feet of plate area)
G0828-No. 7 Dissolving Tank Group			
ES-08-PU-013 PSD MACT Subpart MM	No. 7 Smelt Dissolving Tank	08-CD-013-001	orifice-type wet scrubber (nominal pressure drop of 8 inches of water and 17 gallons per minute minimum liquid injection rate)
ES-08-PU-016*	No. 7 Saltcake Mix Tank*		
ES-08-PU-024*	No. 7 Precipitator Mix Tank 1*		

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-08-PU-025*	No. 7 Precipitator Mix Tank 2*		
G0832-No. 7 Saltcake Silo Group			
ES-08-TK-014	No. 7 Saltcake Silo	08-CD-014-001	bin vent bagfilter (17 square feet of filter area)
G0829- Recovery Boiler Miscellaneous Units			
ES-08-TK-SLTs*	Strong Liquor Storage*	NA	NA
ES-08-TK-008*	Salt Cake Mix Tank*	NA	NA
ES-08-TK-CA*	Chemical Ash Tank*	NA	NA
G0831- Main Saltcake Silo Group			
ES-08-TK-003	main saltcake silo	08-CD-003-001-1 08-CD-003-001-2	Saltcake Silo Feed System Cyclone (60 inches in diameter installed in series with bagfilter (578 square feet of filter surface area)
G0936- Lime Kiln Group			
ES-09-PU-004 MACT Subpart S control device MACT Subpart MM	Lime Kiln - No. 6 / No. 4 fuel oil / natural gas-fired (85.0 million Btu per hour nominal heat input rate)	09-CD-004-001	variable throat venturi-type wet scrubber (nominal pressure drop of 20 inches of water and 650 gallons per minute minimum water injection)
ES-09-PU-016	Lime Kiln Precoat Filter Vacuum Pump Vent	NA	NA
ES-09-PU-017 NSPS IIII, MACT ZZZZ	Diesel-fired lime kiln pony motor (0.39 million Btu per hour maximum heat input)	NA	NA
G0937- Lime Kiln Area Other Units			
ES-09-PU-LU* ES-09-PU-010 ES-09-TK-LMS*	Fresh Lime Unloading* Lime Precoat Filter Lime Mud Storage Tank*	NA	NA
ES-12-TK-001**	High density brownstock storage tank	NA	NA
ES-12-TK-002**	High density brownstock storage tank	NA	NA
ES-12-TK-003**	High density brownstock storage tank	NA	NA
G1043-Recausticizing Other Units			
ES-10-TK-MMT*	Mud Mix Tank*	NA	NA

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-10-PU-MW _s *	Mud Washers*	NA	NA
ES-10-PU-001	Green Liquor Clarifier No. 1	NA	NA
ES-10-PU-002	Green Liquor Clarifier No. 2	NA	NA
ES-10-TK-GLCT*	Green Liquor Catch Tank*	NA	NA
ES-10-TK-GLS*	Green Liquor Storage*	NA	NA
ES-10-PU-DW*	Dregs Washer*	NA	NA
ES-10-TK-WWT _s *	Weak Wash Storage*	NA	NA
ES-10-PU-WLC _s *	White Liquor Clarifiers*	NA	NA
ES-10-PU-SGP _s *	Slaker Grit Piles*	NA	NA
ES-10-TK-CT _s *	Chemical Tanks*	NA	NA
ES-10-PU-023**	Primary Causticizer	NA	NA
G1149-No. 1 Power Boiler Group			
ES-11-CU-001 MACT Subpart S control device; 2D .1100 Case by Case MACT	No. 1 Power Boiler - coal/woodwaste/ No. 6/No. 4 fuel oil-fired (550 million Btu per hour nominal heat input rate)	11-CD-001-001 (West scrubber) in parallel with 11-CD-001-002 (East scrubber)	two venturi scrubbers installed in parallel, (minimum pressure drop of 9.0 inches of water and minimum 1,500 gallons per minute injection, each)
G1150-Bark Feed System Group			
ES-11-TK-006	Hog Fuel Storage Bin	ES-11-PU-003	transfer cyclone (96 inches in diameter)
G1151-Sawdust Feed System Group			
ES-01-PU-020	Sawdust Blower	ES-11-PU-004	transfer cyclone (84 inches in diameter)
G1152-No. 2 Package Boiler Group			
ES-11-CU-033 2D .1100 Case by Case MACT	No. 2 Package Boiler - No. 2/ No. 6 fuel oil-fired boilers (185 million Btu per hour nominal heat input)	NA	NA
G1153-No. 3 Package Boiler Group			
ES-11-CU-034 2D .1100 Case by Case MACT	No. 3 Package Boiler - No. 2/ No. 6 fuel oil-fired boiler (185 million Btu per hour nominal heat input)	NA	NA

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
No. 4 Package Boiler Group			
ES-11-CU-035 NSPS Db, 2D .1100 Case by Case MACT	No. 4 Package Boiler – Natural gas/No. 2 fuel oil-fired boiler (245 million Btu per hour nominal heat input)	NA	NA
G1154-No. 1 Temporary Boiler Group			
ES-11-CU-044 NSPS DC	No. 2 fuel oil-fired temporary boiler (96 million Btu per hour maximum heat input)	NA	NA
G1155-No. 2 Temporary Boiler Group			
ES-11-CU-045 NSPS DC	No. 2 fuel oil-fired temporary boiler (96 million Btu per hour maximum heat input)	NA	NA
G1156-No. 3 Temporary Boiler Group			
ES-11-CU-046 NSPS DC	No. 2 fuel oil-fired temporary boiler (96 million Btu per hour maximum heat input)	NA	NA
G1157-No. 4 Temporary Boiler Group			
ES-11-CU-047 NSPS DC	No. 2 fuel oil-fired temporary boiler (96 million Btu per hour maximum heat input)	NA	NA
G1264-No. 3 Paper Machine Group			
ES-12-PU-002.1	No. 3 Paper Machine Wet End and Press Section	NA	NA
ES-12-PU-002.2	No. 3 Paper Machine Dryers	NA	NA
ES-12-PU-002.3	No. 3 Paper Winder Section	NA	NA
G1265-No. 4 Paper Machine Group			
ES-12-PU-003.1	No. 4 Paper Machine Wet End and Press Section	NA	NA
ES-12-PU-003.2	No. 4 Paper Machine Dryers	NA	NA
ES-12-PU-003.3	No. 4 Paper Winder Section	NA	NA
G1669-Biological wastewater Treatment Facility			
ES-16-AS-020 MACT Subpart S Control Device	Aerated Stabilization Basin (ASB)	NA	NA
G2073-Turpentine Recovery Group			
ES-20-PU-001 MACT S	North Turpentine Recovery Cyclone	ES-09-PU-004	Lime Kiln via closed LVHC NCG collection system
ES-20-PU-002 MACT S	South Turpentine Recovery Cyclone	or	

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-20-TK-003 MACT S	Sample Tank	ES-11-CU-001	No. 1 Power Boiler via closed LVHC NCG collection system
ES-20-PU-004 MACT S	North Turpentine Condenser		
ES-20-PU-005 MACT S	South Turpentine Condenser		
ES-20-PU-006 MACT S	Secondary Turpentine Condenser		
ES-20-PU-007 MACT S	Turpentine Heater		
ES-20-TK-008 MACT S	Primary Turpentine Decanter Underflow Tank		
ES-20-PU-009 MACT S	Secondary Turpentine Decanter		
ES-20-TK-011 MACT S	Secondary Turpentine Decanter Underflow Tank		
ES-20-PU-010 MACT S	Primary Turpentine Decanter		
ES-20-TK-010*	Turpentine Storage*		
G2177-Tall Oil Plant*			
ES-21-PU-004	Tall Oil Reactor	21-CD-004-001	packed tower-type wet scrubber (nominal minimum pH of 10 for scrubber effluent)
ES-21-TK-005	No. 1 Tall Oil Decanter		
ES-21-TK-006	No. 2 Tall Oil Decanter		
ES-21-TK-007	No. 3 Tall Oil Decanter		
ES-21-TK-008	Lignin Layer Tank		
ES-21-PU-009	Resaponification Tank		
Emergency Reciprocating Internal Combustion Engines			
ES-FP-001 MACT ZZZZ	Diesel-fired fire water pump (0.95 million Btu per hour maximum heat input)	NA	NA
ES-EG-001 MACT ZZZZ	Diesel-fired recovery/utility emergency generator (0.26 million Btu per hour maximum heat input)	NA	NA
ES-EG-002 MACT ZZZZ	Diesel-fired emergency lighting generator (0.04 million Btu per hour maximum heat input)	NA	NA
ES-EG-003 MACT ZZZZ	Diesel-fired emergency lighting generator (0.04 million Btu per hour maximum heat input)	NA	NA

*Sources identified with one asterisk have no applicable requirements under the North Carolina SIP, but their emissions are greater than the thresholds under 15A NCAC 2Q .0503(8); these sources are permitted pursuant to 15A NCAC 2Q .0508(i)(15).

**Sources identified with two asterisks are only subject to State-Only toxic air emissions limitations under 15A NCAC 2D .1100.

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. Sawdust Silo Group (G0104) consisting of Sawdust Silo (ID No. ES-01-PU-013) and associated Transfer Cyclone (ID No. ES-01-PU-113).

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

Regulated Pollutant	Limits/Standards	Applicable Regulations
Particulate Matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons per hour -OR- $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons per hour Where: E = allowable emission rate in pound per hour P = process weight rate in tons per hour	15A NCAC 2D .0515
Visible Emissions	40 percent opacity	15A NCAC 2D .0521

1. 15A NCAC 2D .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: [15A NCAC 2D .0515(a)]

$E = 4.10 \times P^{0.67}$ calculated to three significant figures for process rates less than or equal to 30 tons per hour, or
 $E = 55.0 \times P^{0.11} - 40$ calculated to three significant figures for process rates greater than 30 tons per hour,

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 2D .2601]

- 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. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. Particulate matter emissions from these sources shall be controlled by the cyclone. To assure compliance, the Permittee shall perform inspections and maintenance, 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 calendar year not to exceed 14 months from the previous inspection) internal inspection of the cyclone's structural integrity.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and cyclone 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 cyclone; and
 - iv. any corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

- e. The Permittee shall submit the results of any maintenance performed on the cyclone 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 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources shall not be more than **40 percent opacity** when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 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 90 percent opacity. [15A NCAC 2D .0521(d)]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and 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 2D .0521.

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

- c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. If the emission source(s) are not operating, a record of this fact along with the corresponding date and time shall substitute for the monthly observation. The Permittee shall establish a normal~~≡~~ for the source in the first 30 days following the effective date of the permit. If visible emissions from this source are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 A. 2.a. above.
 If the Permittee elects to take action pursuant to paragraph (i) above and the emissions observation is still not normal, the Permittee will be deemed in noncompliance with 15A NCAC 2D .0521 unless, within the same monitoring period, the demonstration required in paragraph (ii) is performed and recorded. Alternatively, the Permittee may take action in accordance with (ii) directly.

Recordkeeping [15A NCAC 2Q .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 2D .0521 if these records are not maintained.

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

- e. The Permittee shall submit a summary report of the monitoring 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.

B. Digester System (ID No. G0208) consisting of:

- Twelve (12) batch digesters - No. 7 Digester through No. 12 and No. 14 through No. 19 Digester (ID Nos. ES-02-PU-003 to ES-02-PU-014);
- Blowtank A (ID No. ES-02-PU-015);
- Blowtank B (ID No. ES-02-PU-016);
- Blowtank C (ID No. ES-02-PU-017);
- Cyclone A (ID No. ES-02-PU-018);
- Cyclone B (ID No. ES-02-PU-019);
- Cyclone C (ID No. ES-02-PU-020);
- Hot Water Accumulator (ID No. ES-02-PU-024); and
- Secondary Condenser (ID No. ES-02-PU-025).

Odorous gases controlled by LVHC NCG Collection System routed to Lime Kiln (ID No. ES-09-PU-004) or No. 1 Power Boiler (ID No. ES-11-CU-001); and foul condensates controlled by vacuum stripper (ID No. ES-02-PU-028) and waste treatment aerated stabilization basin (ID No. ES-16-AS-020).

The following table provides a summary of limits and standards for the emission sources described above:

Regulated Pollutant	Limits/Standards	Applicable Regulations
Total Reduced Sulfur (TRS)	5 ppm by volume on a dry basis, corrected to 10 percent oxygen	15A NCAC 2D .0528
Hazardous air pollutants	See Permit Condition 2.2 A	15A NCAC 2D .1111 (40 CFR Part 63 Subpart S)

1. 15A NCAC 2D .0528: TOTAL REDUCED SULFUR FROM KRAFT PULP MILLS

- a. The emissions of total reduced sulfur shall not exceed **five parts per million corrected to 10 percent oxygen** from any digester system, measured as hydrogen sulfide on a dry gas basis and averaged per discrete contiguous 12-hour time periods. [15A NCAC 2D .0528]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 B. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0528

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

- c. The digester system emission sources, shall comply with the limitation above by ensuring the following:
- i. The gases are combusted in the Lime Kiln; or
 - ii. The gases are combusted in the No. 1 Power Boiler.
- d. The Permittee shall follow the closed vent inspection procedures per Specific Condition 2.2 A to insure that the emissions are routed to either the Lime Kiln (ID No. ES-09-PU-004) or No. 1 Power Boiler (ID No. ES-11-CO-001) as specified above. The Permittee shall be deemed in noncompliance with 2D .0528 if these procedures are not followed or if the records are not maintained

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

- e. The Permittee shall comply with the Subpart S reporting requirements as specified in Section 2.2-A.1.m and n.

C. Condensate Stripper System (ID No. G0210) consisting of:

- **Stripper Column (ID No. ES-02-PU 028);**
- **Accumulator Overflow Tank (ID No. ES-02-PU-026); and**
- **Foul Condensate Tank (ID No. ES-02-PU-027).**

Odorous gases controlled by LVHC NCG Collection System routed to Lime Kiln (ID No. ES-09-PU-004) or No. 1 Power Boiler (ID No. ES-11-CU-001); and foul condensates controlled by Waste Treatment Aerated Stabilization Basin (ID No. ES-16-AS-020).

The following table provides a summary of limits and standards for the emission sources described above:

Regulated Pollutant	Limits/Standards	Applicable Regulations
Total Reduced Sulfur (TRS)	5 ppm by volume on a dry basis, corrected to 10 percent oxygen	15A NCAC 2D .0524 (40 CFR Part 60 Subpart BB)
Hazardous air pollutants	See Permit Condition 2.2 A	15A NCAC 2D .1111 (40 CFR Part 63 Subpart S)

1. 15A NCAC 2D .0524: NSPS 40 CFR 60 SUBPART BB

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

Emissions Limitations [15A NCAC 2D .0524]

- b. No owner or operator shall cause to be discharged into the atmosphere any gases which contain TRS in excess of **5 ppm by volume measured as hydrogen sulfide on a dry basis, corrected to 10 percent oxygen**, unless the following conditions are met [40 CFR Part 60, Subpart 60.283(a)(1)]:
- i. The gases are combusted in the lime kiln, or
 - ii. The gases are combusted with other waste gases in an incinerator or other device, and are subjected to a minimum temperature of 650 °C (1200 °F) for at least 0.5 second

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

- c. The Permittee shall follow the closed vent inspection procedures per Specific Condition 2.2 A to insure that the emissions are routed to either the Lime Kiln (ID No. ES-09-PU-004) or No. 1 Power Boiler (ID No. ES-11-CO-001) as specified above. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these procedures are not followed or if the records are not maintained.

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

- d. 40 CFR § 60.284(d) –reporting of excess emissions.
- e. The Permittee shall comply with the Subpart S reporting requirements as specified in Section 2.2-A.1.m and n.

D. The Evaporator Area (ID No. G0719) consisting of:

- **B-Line Evaporators (ID No. ES-07-PU-004);**
- **B-Line Surface Condenser (ID No. ES-07-PU-026);**
- **Condenser Seal Tank (ID No. ES-07-PU-007);**
- **B-Line Hotwell (ID No. ES-07-PU-008);**
- **C-Line Evaporators (ID No. ES-07-PU-009);**
- **C-Line Concentrators (ID No. ES-03-PU-024);**
- **C-Line Surface Condenser (ID No. ES-07-PU-027); and**
- **C-Line Hotwell (ID No. ES-07-PU-013).**

Odorous gases controlled by LVHC NCG Collection System routed to Lime Kiln (ID No. ES-09-PU-004) or No. 1 Power Boiler (ID No. ES-11-CU-001); and foul condensates controlled by Waste Treatment Aerated Stabilization Basin (ID No. ES-16-AS-020).

The following table provides a summary of limits and standards for the emission sources described above:

Regulated Pollutant	Limits/Standards	Applicable Regulations
Total Reduced Sulfur (TRS)	5 ppm by volume on a dry basis, corrected to 10 percent oxygen	15A NCAC 2D .0528
Hazardous air pollutants	See Permit Condition 2.2 A	15A NCAC 2D .1111 (40 CFR Part 63 Subpart S)

1. 15A NCAC 2D .0528: TOTAL REDUCED SULFUR FROM KRAFT PULP MILLS

- a. The emissions of total reduced sulfur shall not exceed **five parts per million corrected to 10 percent oxygen** from any evaporator system, measured as hydrogen sulfide on a dry gas basis and averaged per discrete contiguous 12-hour time periods. [15A NCAC 2D .0528]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 D. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0528

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

- c. The evaporator system emission sources, shall comply with the limitation above by ensuring the following:
- i. The gases are combusted in the Lime Kiln; or
 - ii. The gases are combusted in the No. 1 Power Boiler.
- d. The Permittee shall follow the closed vent inspection procedures per Specific Condition 2.2 A to insure that the emissions are routed to either the Lime Kiln (ID No. ES-09-PU-004) or No. 1 Power Boiler (ID No. ES-11-CO-001) as specified above. The Permittee shall be deemed in noncompliance with 2D .0528 if these procedures are not followed or if the records are not maintained.

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

- e. The Permittee shall comply with the Subpart S reporting requirements as specified in Section 2.2-A.1.m and n.

- E. No. 7 Dissolving Tank Group (ID No. G0828) consisting of:**
- **No. 7 Smelt Dissolving Tank (ID No. ES-08-PU-013);**
 - **No. 7 Saltcake Mix Tank (ID No. ES-08-PU-016); and**
 - **No. 7 Precipitator Mix Tanks 1 and 2 (ID Nos. ES-08-PU-024 and ES-08-PU-025).**

Controlled by No. 7 Smelt Dissolver Scrubber (ID No. 08-CD-013-001).

The following table provides a summary of limits and standards for the Smelt Dissolving Tanks:

Regulated Pollutant	Limits/Standards	Applicable Regulations
Particulate Matter	0.6 pounds per equivalent tons of air dried pulp	15A NCAC 2D .0508
Visible Emissions	<u>Affected Source: No. 7 Smelt Tank (ID No. ES-08-PU-013)</u> 20 percent opacity	15A NCAC 2D .0521
Total Reduced Sulfur (TRS)	0.032 pounds per ton of black liquor solids (BLS).	15A NCAC 2D .0528
Particulate Matter	<u>Affected Source: No. 7 Smelt Tank (ID No. ES-08-PU-013)</u> 0.2 lb per ton BLS dry weight	15A NCAC 2D .0530
Toxic air pollutants	See Permit Condition 2.2 D STATE-ONLY REQUIREMENT	15A NCAC 2D .1100
Hazardous air pollutants	See Permit Condition 2.2 C	15A NCAC 2D .1111 (40 CFR Part 63 Subpart MM)
Toxic air pollutants	See Permit Condition 2.2 E STATE-ONLY REQUIREMENT	15A NCAC 2Q .0711

1. **15A NCAC 2D .0508: PARTICULATES FROM PULP AND PAPER MILLS**
 - a. Emissions from the production of pulp and paper that are discharged from the No. 7 Smelt Dissolving Tanks (ID No. ES-08-PU-013) into the atmosphere shall not exceed **0.6 pounds of particulate matter per equivalent tons of air-dried pulp**. [15A NCAC 2D .0508(a)]

Testing [15A NCAC 2D .2601]
 - b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 E. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0508.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]
 - c. To assure compliance, the permittee shall comply with the 40 CFR 63 Subpart MM monitoring, recordkeeping, and reporting requirements as specified in Section 2.2 C of this permit.
2. **15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**
 - a. Visible emissions from the No. 7 Smelt Dissolving Tank (ID Nos. ES-08-PU-013) shall not be more than **20 percent opacity** when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

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

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

- c. The No. 7 smelt dissolving tank stack has a wet plume. No visible emissions monitoring is required. To assure compliance, the Permittee shall follow the monitoring, recordkeeping, and reporting requirements per Specific Condition 2.1 E. 1. c.

3. 15A NCAC 2D .0528: TOTAL REDUCED SULFUR FROM KRAFT PULP MILLS

- a. The emissions of total reduced sulfur shall not exceed **0.032 pounds per ton of black liquor solids (dry weight)**, measured as hydrogen sulfide, from any smelt dissolving tank. [15A NCAC 2D .0528]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 F. 3. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0528.

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

- c. To assure compliance, the Permittee shall follow the monitoring, recordkeeping, and reporting requirements per Specific Condition 2.1 E. 1. c. The Permittee shall be deemed in noncompliance with 2D .0528 if the monitoring and recordkeeping is not maintained.

4. 15A NCAC 2Q.0317 “Avoidance Conditions for 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION”

- a. The emissions of particulate matter shall not exceed **0.2 pounds per ton of black liquor solids (dry weight)** from the No. 7 Smelt Dissolving Tank (ID Nos. ES-08-PU-013). [15A NCAC 2D .0530]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1E 4. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

- c. To assure compliance, the Permittee shall follow the monitoring, recordkeeping, and reporting requirements per Specific Condition 2.1 E. 1. c. The Permittee shall be deemed in noncompliance with 2D .0530 if the monitoring and recordkeeping is not maintained.

- F. No. 7 Recovery System (ID No. G0827) consisting of No. 7 Recovery Furnace (ID No. ES-08-PU-012) -black liquor solids/ultra low sulfur No. 2 fuel oil blended with black liquor solids/No. 6 fuel oil/No. 4 fuel oil-fired recovery furnace (3.2 million pounds of black liquor solids per day average/504 million Btu per hour maximum permitted heat input rate from firing fuel oil) controlled by No. 7 Precipitator (ID No. 08-CD-004-001).**

The following table provides a summary of limits and standards for the No. 7 Recovery Furnace:

Regulated Pollutant	Limits/Standards	Applicable Regulations
Sulfur Dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Particulate Matter	0.10 g/dscm (0.044grains/dscf) corrected 8 percent oxygen	15A NCAC 2D .0524 (40 CFR 60 Subpart BB)
Total Reduced Sulfur (TRS)	5 ppm by volume on a dry basis, corrected to 8 percent oxygen	15A NCAC 2D .0524 (40 CFR 60 Subpart BB)
Visible Emissions	Visible emissions shall not be more than 35 percent opacity	15A NCAC 2D .0524 (40 CFR 60 Subpart BB)
Particulate Matter	0.021 grains/dscf corrected to 8 percent oxygen; and 144 tons per consecutive 12 month period	15A NCAC 2D .0530
Sulfur Dioxide	75 ppm corrected to 8 percent oxygen, (annual rolling average); 110 ppm corrected to 8 percent oxygen, (3-hour average); and 571 tons per consecutive 12 month period	15A NCAC 2D .0530
Nitrogen Oxides	100 ppm corrected to 8 percent oxygen, (30-day rolling average); and 626 tons per consecutive 12 month period	15A NCAC 2D .0530
Carbon Monoxide	300 ppm corrected to 8 percent oxygen, (8-hour rolling average); and 1,042 tons per consecutive 12 month period	15A NCAC 2D .0530
Volatile Organic Compounds (VOCs)	50 ppm corrected to 8 percent oxygen, (24-hour rolling average); and 95 tons per consecutive 12 month period	15A NCAC 2D .0530
Total Reduced Sulfur (TRS)	5 ppm corrected to 8 percent oxygen, (12-hour average); and 21 tons per consecutive 12 month period	15A NCAC 2D .0530
Nitrogen Oxides	Annual tracking report while burning ultra low sulfur No. 2 fuel oil with black liquor solids	15A NCAC 2D .0530(u)
Toxic air pollutants	See Permit Condition 2.2 D STATE-ONLY REQUIREMENT	15A NCAC 2D .1100
HAP Emissions	See Permit Condition 2.2 C	15A NCAC 2D .1111 (40 CFR Part 63 Subpart MM)
Toxic air pollutants	See Permit Condition 2.2 E STATE-ONLY REQUIREMENT	15A NCAC 2Q .0711

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

- a. Emissions of sulfur dioxide from this source shall not exceed **2.3 pounds per million Btu heat input**. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

Testing [15A NCAC 2D .2601]

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

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

- c. The maximum sulfur content of any No. 4 or 6 fuel oil received and burned in the recovery boiler shall not exceed 2.1 percent by weight. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur content of the fuel oil exceeds this limit.
- d. To assure compliance, the Permittee shall monitor the sulfur and heat content of the fuel oil by using fuel oil supplier certification per month. The results of the fuel oil supplier certifications shall be recorded in a logbook (written or electronic format) on a quarterly basis and include the following information:
- i. the name of the fuel oil supplier;
 - ii. the sulfur and heat content of each shipment of fuel oil received during the quarter;
 - iii. the method used to determine the sulfur and content of the fuel oil; and
 - iv. a certified statement signed by the responsible official that the records of fuel oil supplier certification submitted represent all of the fuel oil fired during the period.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur and heat content of the oil is not monitored and recorded.

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

- e. The Permittee shall submit a summary report of the fuel oil supplier certifications postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. The permittee shall submit a certified statement signed by the responsible official that the records of fuel oil supplier certification submitted represent all of the fuel oil fired during the period.

2. 15A NCAC 2D .0524: NSPS 40 CFR SUBPART BB

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

Emissions Limitations [15A NCAC 2D .0524]

- b. Per 40 CFR Part 60, Subpart BB, emissions from the No. 7 Recovery Furnace (ID No. ES-08-PU-012) shall not exceed:
- i. **0.10 g/dscm (0.044 gr/dscf) of particulate matter corrected to 8 percent oxygen.** [40 CFR Part 60, Subpart 60.282(a)(1)(i)];
 - ii. **35 percent opacity** [40 CFR Part 60, Subpart 60.282(a)(1)(ii)]; or
 - iii. **5 ppm of TRS by volume on a dry basis, corrected to 8 percent oxygen** based on a 12-hour average [40 CFR Part 60, Subpart 60.283(a)(2) and 60.284(c)].

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

- c. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limit(s) above by testing the No. 7 Recovery Furnace (ID No. ES-08-PU-012) for particulate matter in accordance with General Condition JJ. Testing shall be completed once per calendar year and the results submitted to the DAQ. If the results of the testing demonstrate results at less than 80 percent of the limit above, the testing frequency may be reduced to every five years. If the results of this or any test is above the limit given in Section 2.1 F. 2. b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

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

- d. Particulate matter emissions from the No. 7 Recovery Furnace (ID No. ES-08-PU-012) shall be controlled by the No. 7 Precipitator (ID No. 08-CD-004-001). To assure compliance, the Permittee shall comply with the 40 CFR 63 Subpart MM monitoring, recordkeeping and reporting requirements as specified in Section 2.2 C. of this permit. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these parameters are not monitored or these records are not maintained.

- e. 40 CFR § 60.284(a)(1) - Permittee shall calibrate, maintain, and operate a continuous monitoring system to monitor and record the opacity of the gases discharged into the atmosphere from any recovery furnace. The span of this system shall be set at 70 percent opacity.
- f. 40 CFR § 60.284(a)(2) - The Permittee shall calibrate, maintain, and operate a continuous monitoring system to monitor and record the concentration of TRS emissions on a dry basis and the percent of oxygen by volume on a dry basis in the gases discharged into the atmosphere. These systems shall be located downstream of the control device(s) and the spans of these continuous monitoring system(s) shall be set:
 - i. At a TRS concentration of 30 ppm for the TRS continuous monitoring system.
 - ii. At 25 percent oxygen for the continuous oxygen monitoring system.
 The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these parameters are not monitored or these records are not maintained.

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

- g. The Permittee shall follow 40 CFR § 60.284(d) for reporting of excess emissions.
- h. The Permittee shall submit a summary report of the 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.

3. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. The following Best Available Control Technology (BACT) limits shall not be exceeded when the No. 7 Recovery Furnace (ID No. ES-08-PU-012) is fired exclusively with Black Liquor Solids (BLS) or ultra low sulfur No. 2 fuel oil blended with BLS:

Pollutant	Emission Limits
Particulate Matter	0.021 grains/dscf corrected to 8 percent oxygen; and 144 tons per consecutive 12 month period
Sulfur Dioxide	75 ppm corrected to 8 percent oxygen, (annual rolling average); 110 ppm corrected to 8 percent oxygen, (3-hour average); and 571 tons per consecutive 12 month period
Nitrogen Oxides	100 ppm corrected to 8 percent oxygen, (30-day rolling average); and 626 tons per consecutive 12 month period
Carbon Monoxide	300 ppm corrected to 8 percent oxygen, (8-hour rolling average); and 1,042 tons per consecutive 12 month period
Volatile Organic Compounds (VOCs)	50 ppm corrected to 8 percent oxygen, (24-hour rolling average); and 95 tons per consecutive 12 month period
Total Reduced Sulfur (TRS)	5 ppm corrected to 8 percent oxygen, (12-hour average); and 21 tons per consecutive 12 month period

Testing [15A NCAC 2D .2601]

- 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 limits given in Section 2.1 F.3. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.
- c. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limit(s) above by testing the No. 7 Recovery Furnace (ID No. ES-08-PU-012), while firing BLS or ultra low sulfur No. 2 fuel oil blended with BLS, for Particulate Matter, Carbon Monoxide, and VOCs in accordance with a General Condition JJ. Testing shall be completed once per calendar year and the results submitted to the DAQ. If the results of this or any test is above the limit given in Section 2.1 F.3. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.
- d. The Permittee shall conduct a stack test in accordance with 15A NCAC 2D .2601 within sixty calendar days of any one-hour average opacity reading in exceedance of twenty (20) percent excluding periods of startup, shutdown, or malfunction as provided in 15A NCAC 2D .0535. The testing shall be performed in accordance with General Condition JJ. If the Permittee fails to complete a required stack test as provided above, or if the

results of this test are above the particulate matter limits given in Section 2.1 F.3.a. of this permit, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

- e. To ensure compliance, the Permittee shall calibrate, maintain, and operate a continuous emissions monitoring system (CEMs) and record the output of the system for determining sulfur dioxide, nitrogen oxides, total reduced sulfur (TRS) (dry basis, corrected to 8 percent oxygen); and opacity.
- f. The CEMS shall be operated in accordance with the applicable requirements of 40 CFR 60 Appendix B and Appendix F unless an alternative monitoring and quality assurance program is approved by the DAQ. The monitoring system downtime shall not exceed 5 percent of the recovery furnace operating time per six-month period. During periods when the certified monitor is down or "out-of-control," as defined in 40 CFR Part 60, Appendix F, the owner or operator shall substitute emission data using the monthly average emission rate for the period in which the monitor is not collecting quality assured data. If monitored value exceeds the limits detailed above or the records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530
- g. To ensure that emissions are less than the above-specified limits:
 - i. The amount of black liquor solids fired in the No. 7 Recovery Furnace shall not exceed **3.20 million pounds as fired BLS per 24 hours.**
 - ii. The total amount of No. 6 and No. 4 fuel oil fired in the No. 7 Recovery Furnace shall not exceed **744,000 gallons per consecutive 12 month period.**
 - iii. The amount of black liquor solids fired in the No. 7 Recovery Furnace shall not exceed **584,000 tons (as-fired) per 12-month period.**

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the BLS firing rate or fuel usage rate exceeds the limits detailed above.
- h. To ensure compliance, the Permittee shall maintain records as follows:
 - i. The Permittee shall record and maintain records of the amounts (in tons) of BLS fired in the No. 7 Recovery Furnace (ID No. ES-08-PU-012) per 24 hours and;
 - ii. The Permittee shall record and maintain records of the amounts (in gallons) of fuel oil burned in the No. 7 Recovery Furnace (ID No. ES-08-PU-012) during each month and;

The record of the amounts of BLS (in tons) per 24 hours and fuel oil (in gallons) burned during each month shall be made available to an authorized representative of DAQ upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the BLS firing rate or fuel usage rate exceeds the limits detailed above.

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

- i. The Permittee shall submit a summary report of the monitoring 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.

4. 15A NCAC 2D .0530(u): USE OF PROJECTED ACTUAL EMISSIONS

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

- a. Because the Permittee relied on projected actual emissions for the purposes of demonstrating that the proposed project described in Permit Application 4200007.09B for modification to the Recovery Furnace (ID No. ES-08-PU-012) did not result in a significant emissions increase, the owner or operator shall submit a report to the Regional Office within 60 days after the end of each calendar year during which these records must be generated. In addition to the items listed in below, the report shall contain the items listed in 40 CFR 51.166(r)(6)(v)(a) through (c). These records and reports shall be maintained for five years following regular operations after the change.

In addition to the items listed in 40 CFR 51.166(r)(6)(v)(a) through (c), the Permittee shall report the following parameters:

Parameter	Projection (annual unless otherwise provided) *
Ultra Low Sulfur No. 2 Fuel Oil in Recovery Furnace #7	525,600 gallons
NOx emissions from Recovery Furnace #7 2009 ultra low sulfur No. 2 fuel oil blending with black liquor solids project	327 tons

* These projections are not enforceable limitations. If parameter exceeds the projection, consistent with 15A NCAC 2D .0530, the permit shall include in its annual report an explanation as to why the actual rates exceeded the projection.

G. No. 7 Saltcake Silo Group (ID No. G0832) consisting of No. 7 Saltcake Silo (ID No. ES-08-TK-014) controlled by Bin Vent Bagfilter (ID No. 08-CD-014-001), and

Main Saltcake Silo Group (ID No. G0831) consisting of Main Saltcake Silo (ID No. ES-08-TK-003) controlled by Cyclone (ID No. 08-CD-003-001-1) and Bagfilter (ID No. 08-CD-003-001-2).

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

Regulated Pollutant	Limits/Standards	Applicable Regulations
Particulate Matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons per hour -OR- $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons per hour Where: E = allowable emission rate in pound per hour P = process weight rate in tons per hour	15A NCAC 2D .0515
Visible Emissions	20 percent opacity	15A NCAC 2D .0521

1. 15A NCAC 2D .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: [15A NCAC 2D .0515(a)]
 $E = 4.10 \times P^{0.67}$ calculated to three significant figures for process rates less than or equal to 30 tons per hour,
or
 $E = 55.0 \times P^{0.11} - 40$ calculated to three significant figures for process rates greater than 30 tons per hour,
 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 2D .2601]

- 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 2D .0515.

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

- c. Particulate matter emissions from these sources shall be controlled by the cyclone and bagfilters. To assure compliance, the Permittee shall perform inspections and maintenance, 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 calendar year not to exceed 14 months from the previous inspection) internal inspection of the bagfilters' (ID No. 08-CD-014-001) and (ID No. 08-CD-003-001-2) structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .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 corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

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

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and 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 2D .0521.

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

- c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. If the emission source(s) are not operating, a record of this fact along with the corresponding date and time shall substitute for the monthly observation. The Permittee shall establish Anormal≡ for the source in the first 30 days following the effective date of the permit. If visible emissions from this source are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 G.2. a. above.
 If the Permittee elects to take action pursuant to paragraph (i) above and the emissions observation is still not normal, the Permittee will be deemed in noncompliance with 15A NCAC 2D .0521 unless, within the same monitoring period, the demonstration required in paragraph (ii) is performed and recorded. Alternatively, the Permittee may take action in accordance with (ii) directly.

Recordkeeping [15A NCAC 2Q .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 2D .0521 if these records are not maintained.

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

- e. The Permittee shall submit a summary report of the monitoring 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.

H. Lime Kiln System (ID No. G0936) consisting of Lime Kiln (ID No. ES-PU-004 – No. 6/No. 4 fuel oil/Natural Gas/NCGs-fired (85 million Btu per hour nominal heat input rate) controlled by Scrubber (ID No. 09-CD-004-001)

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

Regulated Pollutant	Limits/Standards	Applicable Regulations
Particulate Matter	0.5 pounds per equivalent tons of air dried pulp	15A NCAC 2D .0508
Sulfur Dioxide	2.3 pound per million Btu heat input	15A NCAC 2D .0516
Visible Emissions	40 percent opacity	15A NCAC 2D .0521
Total Reduced Sulfur (TRS)	20 ppm by volume on a dry basis, corrected to 10 percent oxygen	15A NCAC 2D .0528
Toxic air pollutants	See Permit Condition 2.2 D STATE-ONLY REQUIREMENT	15A NCAC 2D .1100
Hazardous air pollutants	See Permit Condition 2.2 C	15A NCAC 2D .1111 (40 CFR Part 63 Subpart MM)
Toxic air pollutants	See Permit Condition 2.2 E STATE-ONLY REQUIREMENT	15A NCAC 2Q .0711

1. 15A NCAC 2D .0508: PARTICULATES FROM PULP AND PAPER MILLS

a. Emissions from the production of pulp and paper that are discharged from this source into the atmosphere shall not exceed 0.5 pounds of particulate matter per equivalent tons of air dried pulp. [15A NCAC 2D .0508(a)].

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance General Condition JJ utilizing EPA Methods 1 through 5 or other test methods per a DAQ-approved test protocol. If the results of this test are above the limit given in Section 2.1 H.1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0508.

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

c. To assure compliance, the permittee shall comply with the 40 CFR 63 Subpart MM monitoring, recordkeeping, and reporting requirements as specified in Section 2.2 C of this permit.

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

a. Emissions of sulfur dioxide from this source shall not exceed **2.3 pounds per million Btu heat input**. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

Testing [15A NCAC 2D .2601]

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

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

c. The maximum sulfur content of any No. 4 or 6 fuel oil received and burned in the kiln shall not exceed 2.1 percent by weight. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur content of the fuel oil exceeds this limit.

d. To assure compliance, the Permittee shall monitor the sulfur and heat content of the fuel oil by using fuel oil supplier certification per month. The results of the fuel oil supplier certifications shall be recorded in a logbook (written or electronic format) on a quarterly basis and include the following information:

i. the name of the fuel oil supplier;

- ii. the sulfur and heat content of each shipment of fuel oil received during the quarter; and
- iii. the method used to determine the sulfur and heat content of the fuel oil; and
- iv. a certified statement signed by the responsible official that the records of fuel oil supplier certification submitted represent all of the fuel oil fired during the period.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur and heat content of the oil is not monitored and recorded.

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

- e. The Permittee shall submit a summary report of the fuel oil supplier certifications postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. The permittee shall submit a certified statement signed by the responsible official that the records of fuel oil supplier certification submitted represent all of the fuel oil fired during the period.

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

- a. Visible emissions from the Lime Kiln (ID Nos. ES-09-PU-004) shall not be more than **40 percent opacity** when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 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 90 percent opacity. [15A NCAC 2D .0521 (c)]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 H.3. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. The Lime Kiln has a wet plume. No visible emissions monitoring is required. To ensure compliance, the permittee shall follow the monitoring, recordkeeping, and reporting requirements in Specific Condition 2.2 H.1 c.

4. 15A NCAC 2D .0528: TOTAL REDUCED SULFUR FROM KRAFT PULP MILLS

- a. The emissions of total reduced sulfur shall not exceed **20 ppm by volume on a dry basis, corrected to 10 percent oxygen** from any lime kiln, measured as hydrogen sulfide on a dry gas basis and averaged per discrete contiguous 12-hour time periods. [15A NCAC 2D .0528]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 H.4. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0528

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f); 2D .0611; 2D .0613]

- c. To ensure compliance, the Permittee shall calibrate, maintain, and operate a continuous monitoring system for determining the total reduced sulfur (as hydrogen sulfide, dry basis, corrected to 10 percent oxygen) emissions discharged to the atmosphere and record the output of the system. The continuous monitoring system shall be operated in accordance with the applicable requirements of 40 CFR 60 Appendix B and Appendix F unless an alternative monitoring and quality assurance program is approved by the DAQ. The monitoring system downtime shall not exceed 5 percent of the lime kiln operating time per six month period. If any 12-hour block average exceeds the limit above or the records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0528, except that two percent of all 12-hour total reduced sulfur averages per quarter year in excess of the limitation given above, in the absence of start-ups, shutdowns, and malfunctions, shall not be considered in violation.

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

- d. The Permittee shall submit a summary report of the 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.

5. 15A NCAC 2D. 0530(u): USE OF PROJECTED ACTUAL EMISSIONS

- a. Based on emission factors provided in the application (4200007.09C and related documents), replacement of the existing burner system in the Lime Kiln (ID Nos. ES-09-PU-004) is not expected to result in a PSD significant increase in NOx emissions. However, in order to verify the NOx emissions factor (**0.82 lb/ton of CaO**) from the original and replacement burner system, the Permittee shall conduct stack testing pre and post modification in order to document the baseline and replacement NOx emission rates.

Testing [15A NCAC 2D .2601]

- b. Emission testing shall be performed in accordance with General Condition JJ. The Permittee shall submit to DAQ an approvable test protocol within 15 days prior to the replacement of the burner system.
- c. The Permittee shall determine the emission rate of nitrogen oxides prior to replacing the existing burner. The Permittee shall also determine the nitrogen oxides emission rate no later than 45 days after the replacement of the existing system. Both tests shall be conducted firing only oil as the fuel. The Permittee shall also obtain fuel samples representative of the fuel(s) being burned in the lime kiln in conjunction with the stack testing. The Permittee shall conduct ultimate and proximate analyses of the oil sample and submit these test results along with the results of the stack tests. Test reports shall be submitted to the DAQ within 30 days of the testing.

6. 15A NCAC 2D. 0530(u): USE OF PROJECTED ACTUAL EMISSIONS

- a. Based on emission factors provided in the application (4200007.10B and related documents), firing natural gas natural gas and No. 4 fuel oil in the Lime Kiln (ID Nos. ES-09-PU-004) is not expected to result in a PSD significant increase in NOx and/or particulate matter or as an increase in hourly emissions under NSPS 60.14. However, in order to verify the NOx and the particulate emission factors, the Permittee shall conduct stack testing for particulate (both filterable and condensable) and NOx emissions from the new burner system with and without firing natural gas. This testing shall be conducted no later than ninety days (90) after the kiln starts burning natural gas.

Testing [15A NCAC 2D .2601]

- b. Emission testing shall be performed in accordance with General Condition JJ.
- c. The Permittee shall determine the emission rate of nitrogen oxides and particulate matter with and without natural gas firing. The particulate and NOx emission shall be determined simultaneously (i.e. particulate/NOx when natural gas and particulate/NOx when firing oil). Test reports shall be submitted to the DAQ within 30 days of the testing.
- d. If the hourly emission rate of particulate matter (filterable only) when firing oil and/or natural gas is greater than the filterable particulate matter when firing oil prior to the burner replacement (01649T44), then the Permittee shall utilize the statistical method set forth in 40 CFR 60 Appendix C "Determination of Emission Rate Change". To determine if there has been an increase in the hourly PM emission rate If the application of Appendix C determines if an emission rate increase has occurred, then the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524. In such case, the Permittee shall apply for a permit modification to incorporate the requirements of 15A NCAC 2D .0524 (40 CFR 60, Subpart BB) into the Title V permit within 60 days of the date the stack test report was submitted.

I. No. 1 Power Boiler Group (ID No. G1149) consisting of No. 1 Power Boiler (ID No. ES-11-CU-001) – coal, wood, No. 6 /No. 4 fuel oil-fired/NCGs (550 million Btu per hour nominal heat input rate) controlled by two Scrubbers (ID Nos. 11-CD-001-001 and 11-CD-001-002)

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

Regulated Pollutant	Limits/Standards	Applicable Regulations
Particulate Matter	0.19 pounds per million Btu heat input (when firing coal/ fuel oil only); 0.29 pounds per million Btu heat input (when firing woodwaste only); or $E_c = [(0.29)(Q_w) + (0.19)(Q_o)]/Q_t$ Where; Ec = emission limit for combined firing (pound per mmBtu); Qw=actual wood heat input including woodwaste; Qo=actual heat input other than wood heat input; and Qt = Qw + Qo	15A NCAC 2D .0503 15A NCAC 2D .0504
Sulfur Dioxide	2.3 pounds per million Btu heat input.	15A NCAC 2D .0516
Nitrogen Oxides	0.8 pounds per million Btu heat input while burning oil or natural gas; 1.8 pounds per million Btu heat input while burning coal; or $E = [(E_c)(Q_c) + (E_o)(Q_o)]/Q_t$ Where; E = the emission limit in pounds per million Btu heat input for the fuel combination; Ec = 1.8 pounds per million Btu heat input while burning coal; Eo = 0.8 pounds per million Btu heat input while burning oil or natural gas; Qc = coal heat input in Btu per hour; Qo = oil and natural gas heat input in Btu per hour; and Qt = Qc + Qo	15A NCAC 2D .0519
Visible Emissions	40 percent opacity.	15A NCAC 2D .0521
Sulfur Dioxide	less than 35 tons per consecutive twelve month period	15A NCAC 2Q .0317 (15A NCAC 2D .0530 Avoidance)
Toxic air pollutants	See Permit Condition 2.2 D STATE-ONLY REQUIREMENT	15A NCAC 2D .1100
Nitrogen oxides	Ozone season emissions allocations	15A NCAC 2A .1417
Hazardous air pollutants	During No. 6/No. 4 fuel oil firing: <ul style="list-style-type: none"> • Total Selected Metals (As and Cr⁶⁺): 0.002 lbs/MMBtu • CO: 28 ppmvd, corrected to 7% O₂ During coal firing: <ul style="list-style-type: none"> • Total Selected Metals (As and Cr⁶⁺): 0.0004 lbs/MMBtu • CO: 133 ppmvd, corrected to 7% O₂ During green wood (≥ 20% moisture content) firing: <ul style="list-style-type: none"> • Total Selected Metals (As and Cr⁶⁺): 0.0003 lbs/MMBtu • CO: 555 ppmvd, corrected to 7% O₂ During dry wood (< 20% moisture content) firing: <ul style="list-style-type: none"> • Total Selected Metals (As and Cr⁶⁺): 0.0005 lbs/MMBtu • CO: 834 ppmvd, corrected to 7% O₂ 	15A NCAC 2D .1109 [CAA § 112(j)]
Toxic air pollutants	See Permit Condition 2.2 E STATE-ONLY REQUIREMENT	15A NCAC 2Q .0711

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

- a. Emissions of particulate matter from the combustion of coal/No. 4/No. 6 fuel oil that are discharged from this source into the atmosphere shall not exceed **0.19 pound per million Btu heat input**. [15A NCAC 2D .0503(c)]

Testing [15A NCAC 2D .2601]

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

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

- c. The Permittee shall install, operate, and maintain a scrubbing liquid flowmeter and pressure drop indicator on each scrubber. To ensure compliance and the effective operation of the scrubbers, the Permittee shall monitor and record, once per day, scrubbing liquid flow rate and pressure drop. The scrubbing liquid flow rate shall be maintained at 1,500 gallons per minute or above (based on a three hour average beginning September 13, 2007 or the compliance date of the boiler MACT as may be amended). The pressure drop shall be maintained at 9 inches of water or above (based on a three hour average). The Permittee shall be allowed three (3) days of absent observations per semi-annual period. If the emission source(s) is not operating, a record of this fact along with the corresponding date and time shall substitute for the daily observation. The readings shall be recorded in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. To ensure quality, the flow rate gauges or devices shall be calibrated annually. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503 if the scrubbing liquid flow rate or pressure drop is not maintained above the above prescribed limit or if these records are not maintained
- d. If the scrubber liquid flow rate or pressure drop readings recorded as required in Section 2.1. I.1.c., above, are observed to be outside the allowable range, the Permittee shall inspect the scrubber(s) for malfunctions and clean or repair, as necessary. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503 if the inspections, cleaning, and repairs are not performed.
- e. The results of inspection and maintenance activities, discussed above for the scrubbers, shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative of DAQ 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 causes for any variance from the allowable operating range for the scrubbers(s); and
 - iv. corrective actions taken.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503 if these records are not maintained.

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

- f. The Permittee shall submit a summary report of the 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 2D .0504: PARTICULATES FROM WOODBURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from this source shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0504]

$$E_c = [(0.29)(Q_w) + (0.19)(Q_o)]/Q_t$$

Where: E_c = emission limit for combined firing (pound per mmBtu);

Q_w = actual wood heat input including woodwaste, Btu/hour;

Q_o = actual heat input other than wood heat input Btu/hour, and

Q_t = $Q_w + Q_o$

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance General Condition JJ. If the results of this test are above the limit given in Section 2.1 I.2. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0504.

- c. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limit(s) above by testing the No. 1 Power Boiler (ID No. ES-11-CU-001) for particulate matter in accordance with a testing protocol approved by the DAQ. Details of the emissions testing and reporting requirements can be found in Section 3 - General Condition JJ. Testing shall be completed once per calendar year and the results submitted to the DAQ. If the results of the testing demonstrate results at less than 80 percent of the limit above, the testing frequency may be reduced to every five years. If the results of this or any test is above the limit given in Section 2.1 I.1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0504.

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

- d. To assure compliance, the Permittee shall follow the monitoring, recordkeeping, and reporting requirements per Specific Conditions 2.1 I.8.c, d, h, i, and t-w. The Permittee shall be deemed in noncompliance with 2D .0504 if the monitoring and recordkeeping is not maintained.

3. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from this source shall not exceed **2.3 pounds per million Btu heat input**. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

Testing [15A NCAC 2D .2601]

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

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

- c. To assure compliance, the Permittee shall follow the monitoring, recordkeeping, and reporting requirements per Specific Conditions 2.1 I.1. c-e. The Permittee shall be deemed in noncompliance with 2D .0516 if the monitoring and recordkeeping is not maintained.

4. 15A NCAC 2D .0519: CONTROL OF NITROGEN OXIDES EMISSIONS

- a. Emissions of nitrogen oxides from this source when burning No. 4/No. 6 fuel oil and coal and shall be calculated by the following equation [15A NCAC 2D .0519]:

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

where: E = emission limit for combined burning of oil and coal 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 or natural gas
 Qc = coal heat input in Btu per hour
 Qo = oil and natural gas heat input in Btu per hour
 Qt = Qc + Qo

Testing [15A NCAC 2D .2601]

- 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.4.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0519.

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

- c. No monitoring/recordkeeping/reporting is required from the firing of No. 4, No. 6 fuel oil, or coal in this source for this regulation.

5. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from this source shall not be more than **40 percent opacity** when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 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 90 percent opacity. [15A NCAC 2D .0521 (c)]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 I.5. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. The Power Boiler has a wet stack. The monitoring, recordkeeping, and reporting requirements for demonstrating compliance given in section 2.1.I.1 c-e above are deemed sufficient to demonstrate compliance with 2D .0521. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if the monitoring is not conducted or the records are not maintained.

**6. 15A NCAC 2Q. 0317: AVOIDANCE CONDITIONS for
15A NCAC 2D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. In order to avoid applicability of 15A NCAC 2D .0530 (g) for major sources and major modifications the No. 1 Power Boiler (ID No. ES-11-CU-001) shall discharge into the atmosphere less than **35 tons of sulfur dioxide, while burning TRS gases, per consecutive twelve month period:**

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the test results are above the limits given in Section 2.1 I.6. a. the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530. The results of the tests may be used to re-establish the SO₂ removal efficiencies in Section 2.1 I.6 c.iv. and used to calculate SO₂ emissions following incorporation of the revised SO₂ removal efficiencies into the permit.

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

- c. To ensure compliance, the following conditions apply:
the Permittee shall monitor and record the following parameters while burning TRS gases:
- i. total pulp production and
 - ii. scrubber water pH;
 - iii. the scrubber water pH shall be maintained at a pH level of at least 4 when TRS gases are being burned; the following emission factors shall be utilized to calculate the uncontrolled SO₂ emission rate while burning TRS gases:
 - (A) 2.02 pounds of TRS per ton of pulp from the foul condensate stripper, and
 - (B) 3.19 pounds of TRS per ton of pulp from the NCG stream reduced to 1.12 pounds per ton of pulp when passing through the white liquor scrubber;
 - iv. the scrubber water pH measured during TRS burning shall be used to determine scrubber efficiency. Specifically, the following scrubber efficiencies shall be used for a pH range of 4 to 7, and efficiencies shall be interpolated in between the following values:
 - (A) for a pH of 4 an SO₂ removal efficiency of 54% shall be used;
 - (B) for a pH of 5 an SO₂ removal efficiency of 66% shall be used;
 - (C) for a pH of 6 an SO₂ removal efficiency of 80% shall be used;
 - (D) for a pH of 7 or greater an SO₂ removal efficiency of 98% shall be used.
- d. The Permittee shall maintain monthly records of total pulp production and total sulfur dioxide emissions while burning TRS gases which include:
- i. the total pulp production per month;
 - ii. the scrubber water pH (recorded at least once per day);
 - iii. the scrubber efficiency associated with each pH reading;
 - iv. the average scrubber water pH (and scrubber efficiency) for each rolling twelve month period; the SO₂ emissions for each month.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0317 if the monitoring is not conducted or these records are not maintained.

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

- e. The Permittee shall submit a summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities within 30 days after each calendar year quarter, due and 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 report shall contain the following for this source while firing TRS gases:

- i. the total pulp production per month for the previous 14 months. The production must be calculated for each of the 12-month periods over the previous 14 months;
- ii. the average scrubber water pH and scrubber efficiency for the previous 14 months. The parameters must be calculated for each of the 12-month periods over the previous 14 months;
- iii. the SO₂ emissions per month for the previous 14 months. The emissions must be calculated for each of the 12-month periods over the previous 14 months;
- iv. All instances of deviations from the requirements of this permit must be clearly identified.

7. 15A NCAC 2D .1417: EMISSION ALLOCATIONS FOR LARGE COMBUSTION SOURCES

- a. Except as allowed by 15A NCAC 2D .1417(d), the No. 1 Power Boiler (ID No. ES-11-CU-001) shall not exceed a NO_x allocation of **346 tons per ozone season (May 1 through September 30)** for 2006 and later.

Monitoring/Recordkeeping [15A NCAC 2D .0508(f), 15A NCAC 2D .1417(e), 15A NCAC 2D .1404(d)]

- b. The No. 1 Power Boiler shall comply with the requirements of 15 A NCAC 2D .1417 using the nitrogen oxide budget trading program set out in 15A NCAC 2D .1419. Sources shall use the procedures of and complying with the requirements of 40 CFR Part 96, Nitrogen Oxide Budget Trading Program for State Implementation Plans, with the following exceptions:
 - i. Permit applications shall be submitted following the procedures and schedules in this Section and in Subchapter 2Q of this Title instead of the procedures and schedules in 40 CFR Part 96; and
 - ii. The dates and schedules for monitoring systems in 40 CFR Part 96 shall not apply; however, if a source operates during the ozone season, it shall have installed and begun operating by May 31, 2004, a continuous emissions monitoring system that complies with 40 CFR Part 96.
- c. During the ozone season, the Permittee shall show compliance using continuous emissions monitors that meet the requirements of 40 CFR Part 75, Subpart H or 40 CFR Part 96 [15A NCAC 2D .1417(e)].
- d. All emission control devices and techniques installed to comply with 15A NCAC 2D .1417 shall be operated during the ozone season as defined above in the manner in which they are designed and permitted to be operated.

Reporting [15A NCAC 2D .1404]

- e. The Permittee shall comply with the reporting requirements of 40 CFR Part 96, Budget Trading Program for State Implementation Plans. No later than October 30, the owner or operator shall report to the Director the tons of nitrogen oxides emitted during the previous ozone season. The Division of Air Quality shall make this information publicly available.

8. 15A NCAC 2D .1109: CAA § 112(j); Case-by-Case MACT for Boilers & Process Heaters

Emission Limitations

- a. Emissions from the No. 1 Power Boiler (ID No. ES-11-CU-001) shall not exceed the emissions limits listed below:

Pollutant	Emission Limitations for the No. 1 Power Boiler (30 day rolling average)	Fuel Combusted
Hydrogen chloride equivalent ¹	422 lb/hr	No. 4/6 fuel oil/wood/coal
Hydrogen cyanide (HCN)	0.326 lb/hr	No. 4/6 fuel oil/wood/coal
Hydrogen fluoride (HF)	3.22 lb/hr	No. 4/6 fuel oil/wood/coal
Mercury (Hg)	0.0666 lb/hr	No. 4/6 fuel oil/wood/coal
Total Selected Metals (TSM) ² arsenic (As) + chromium VI (Cr ⁶⁺)	0.002 lb/MMBtu	No. 4 and No. 6 fuel oil
	0.0005 lb/MMBtu	Green wood
	0.0003 lb/MMBtu	Dry wood
	0.0004 lb/MMBtu	Coal
Beryllium (Be)	0.00998 lb/hr	No. 4/6 fuel oil/wood/coal

Pollutant	Emission Limitations for the No. 1 Power Boiler (30 day rolling average)	Fuel Combusted
Cadmium (Cd)	0.0146 lb/hr	No. 4/6 fuel oil/wood/coal
Lead (Pb)	0.557 lb/hr	No. 4/6 fuel oil/wood/coal
Manganese (Mn)	0.305 lb/hr	No. 4/6 fuel oil/wood/coal
Nickel (Ni)	1.44 lb/hr	No. 4/6 fuel oil/wood/coal
Selenium (Se)	5.5 lb/hr	No. 4/6 fuel oil/wood/coal
Carbon Monoxide (CO) ² <i>measured on a 30-day average</i>	28 ppmvd @ 7% O ₂	No. 4 and No. 6 fuel oil
	834 ppmvd @ 7% O ₂	All wood biomass
	133 ppmvd @ 7% O ₂	Coal

1. HCl-equivalent is defined by the following equation:

$$E = E_{\text{HCl}} + E_{\text{Cl}_2} * (\text{RfC}_{\text{HCl}} / \text{RfC}_{\text{Cl}_2})$$

Where:

- E = HCl-equivalent emission rate (in lbs/hr);
 E_{HCl} = Hydrogen chloride emission rate (in lbs/hr);
 E_{Cl₂} = Chlorine emission rate (in lbs/hr);
 RfC_{HCl} = Reference concentration for HCl (20 µg/m³); and
 RfC_{Cl₂} = Reference concentration for Cl₂ (0.20 µg/m³)

2. The emissions limitation is proportional to the heat input of the particular fuels combusted.

TSM (arsenic and chromium VI combined)

$$E_{\text{TSM}} = [(0.0005)(\text{GW}) + (0.0003)(\text{DW}) + 0.0004(\text{C}) + 0.002(\text{RFO})]/(\text{GW} + \text{DW} + \text{C} + \text{RFO})$$

Where:

- E_{TSM} = TSM emission limitation in pounds per million Btu
 GW = heat input of green wood in million Btu per hour;
 DW = heat input of dry wood in million Btu per hour;
 C = heat input of coal in million Btu per hour, and
 RFO = heat input of residual No. 4/6 fuel oil in million Btu per hour

Carbon monoxide

The CO emissions limitation is proportional to the heat input of the particular fuels combusted. The limit in ppmvd, corrected to 7% O₂, measured on a 30-day average, is calculated as follows:

$$E_{\text{CO}} = [(834)(\text{GW} + \text{DW}) + (133)(\text{C}) + 28(\text{RFO})]/(\text{GW} + \text{DW} + \text{C} + \text{RFO})$$

Where:

- E_{CO} = CO emission limitation in ppmvd, corrected to 7% oxygen
 GW = heat input of green wood in million Btus per hour;
 DW = heat input of dry wood in million Btus per hour;
 C = heat input of coal in million Btus per hour; and
 RFO = heat input of residual No. 4/6 fuel oil in million Btus per hour.

- b. The emissions limitations for a specific fuel type in Section 2.1. I. 8. a above shall only apply when the Permittee fires at least 10% of that fuel in the boiler on a 12-month rolling average heat input basis. If the Permittee fires less than 10% of a specific fuel in the boiler, the respective emissions limitations and the associated testing, monitoring, and recordkeeping for that particular fuel shall not apply. However, the Permittee shall retain records of the fuels fired in the boiler in accordance with Section 2.1.K.8.u.viii. below. **The initial compliance date for these emission limitations and associated testing, monitoring, recordkeeping, and reporting requirements is February 21, 2014.**

Control Device and Continuous Monitoring System Requirements

- c. If the Permittee demonstrates compliance with any emission limit in Section 2.1.I.8.a above through a performance test of the boiler while operating the wet scrubbers, the Permittee shall install, operate and maintain control devices and continuous monitoring systems (CMS) for the boiler as follows:
- i. The Permittee shall continuously operate the wet scrubbers (ID Nos. 11-CD-001-001 and 11-CD-001-002) when the boiler is in operation.
 - ii. For each scrubber, the Permittee shall perform a monthly external inspection and an internal inspection when the boiler is shut down at least once every 18 months and perform maintenance as recommended by the manufacturer.
 - iii. The Permittee shall install, operate, and maintain an effluent pH monitor CMS, a liquid flow meter CMS and a gas pressure drop indicator CMS on each scrubber. In lieu of the scrubbing liquid flowmeter, the Permittee may use motor amperage and corresponding pump curve to monitor the flow to the scrubber.
 - iv. The liquid flow rate for each scrubber (ID Nos. 11-CD-001-001 and 11-CD-001-002) shall be maintained at or above the respective minimum rate established during the performance test on a 12-hour block average.
 - v. The pressure drop across each scrubber (ID Nos. 11-CD-001-001 and 11-CD-001-002) shall be maintained within the respective operating limits established during the performance test on a 12-hour block average.
 - vi. The pH of the scrubber effluent shall be maintained within the respective operating limits established during the performance test on a 12-hour block average.
- d. The Permittee shall maintain applicable records of the continuous and 12-hour block average liquid flow rates, pressure drops, and effluent pH for each scrubber (ID Nos. 11-CD-001-001 and 11-CD-001-002). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if applicable records are not created and maintained or if any 12-hour block average is not within the allowable limit, as provided above in Section 2.1 I.8.c. iv to vi.

Continuous Emissions Monitoring System (CEMS) for Carbon Monoxide

- e. The Permittee shall install, operate, and maintain a continuous emission monitoring system (CEMS) for carbon monoxide (CO) and oxygen (O₂) according to the procedures listed in i. through vii. below. CO and O₂ shall be monitored at the same location in the boiler exhaust stack on the outlet side of the scrubbers.
- i. The Permittee must install, operate, and maintain the CEMS according to the applicable procedures under Performance Specification (PS) 3 or 4A of 40 CFR 60, Appendix B, and according to the site-specific monitoring plan in Condition 2.1.I.8.g.
 - ii. The Permittee must conduct a performance evaluation of the CEMS according to the requirements in 40 CFR 63.8 and according to PS 4A of 40 CFR 60, Appendix B.
 - iii. The Permittee must complete for the CEMS a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
 - iv. The Permittee must reduce the CEMS data as specified in 40 CFR 63.8(g)(2) and calculate and record a 30-day rolling average emission rate on a daily basis. A new 30-day rolling average emission rate is calculated as the average of all of the hourly CO emission data for the preceding 30 operating days.
 - vi. Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee must monitor continuously (or collect data at all required intervals) at all times that the affected source is operating.
 - vii. For purposes of calculating data averages, the Permittee may not use data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities, or when the boiler or process heater is operating at less than 50 percent of its rated capacity. The Permittee must use all the data collected during all other periods in assessing compliance.
- f. If a 30-day rolling average CO concentration exceeds the applicable CO emission limitation in Section 2.1.I.8.a above, the Permittee shall be deemed in non-compliance with 15A NCAC 2D .1109.

Site-Specific Monitoring Plan

- g. The Permittee must develop a site-specific monitoring plan for each required CEMS and CMS. The plan shall be submitted to the NC DAQ Stationary Source Compliance Branch (SSCB) at least 60 days before the initial performance evaluation of the monitoring system.

Boiler Inspection and Maintenance

- h. If operation and performance monitoring of the scrubbers as specified in Section 2.1.I.8.c is not required, the Permittee shall perform an annual inspection of the boiler and maintenance as recommended by the manufacturer, or as a minimum, the inspection and maintenance requirement shall include the following:
- i. Inspect the burners, and clean or replace any components of the burners as necessary;
 - ii. Inspect the flame pattern and make any adjustments to the burners necessary to optimize the flame pattern; and,
 - iii. Inspect the system controlling the air-to-fuel ratio and ensure that it is correctly calibrated and functioning properly.
 - iv. The Permittee shall conduct at least one tune-up per calendar year to demonstrate compliance with this requirement.
- i. The results of any required annual burner 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 of each recorded action;
 - ii. The results of each inspection; and,
 - iii. The results of any maintenance performed on the boilers.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if the required boiler inspection and maintenance records are not maintained.

Initial Compliance Requirements

- j. The Permittee must demonstrate initial compliance with each emission limit in Section 2.1.I.8.a that applies, unless exempt by 2.1.I.8 k or l, by either:
- i. Conducting initial performance tests in accordance with 15A NCAC 2D .2601 and General Condition JJ and establishing required operating limits within 180 days of the initial compliance date. During this testing, the boiler shall combust the fuel or fuel combination which is expected to result in the highest emissions of each HAP and which is expected to contribute at least 10% of the 12-month average heat input for the boiler; or
 - ii. Conducting initial fuel analyses to determine emission rates and establishing required operating limits within 180 days of the initial compliance date.
- k. No performance testing is required for CO if the facility demonstrates compliance using CEMS.
- l. No performance testing or fuel analysis is required for HF and HCN.
- m. The Permittee shall submit a permit application within 60 days of initial compliance test to incorporate the operating parameter limitations for the scrubbers into the Title V air quality permit. Such modification may be made by Administrative Amendment to the Title V air quality permit.
- n. After the initial compliance date, if the 12-month average heat input of a fuel not accounted for during the initial compliance demonstration is equal to or greater than 10% for any 12-month period, the Permittee shall conduct an initial compliance test within 90 days following the end of the 12-month period (unless such date is *earlier than* 180 days following the initial compliance date, in which case the test shall be performed 180 days following the initial compliance date). Monitoring and recordkeeping requirements associated with the specific fuel firing shall be implemented as soon as practicable, and in no case later than 90 days following the end of the 12-month period.

Fuel Analyses Plan

- o. If the Permittee demonstrates compliance with this standard using one or more fuel analyses, the analyses shall be conducted according to a DAQ approved site-specific fuel analysis plan.
- p. The Permittee shall follow the site-specific fuel analysis plan approved May 12, 2006 or develop and submit a new site-specific fuel analysis plan to the NC DAQ – SSCB for review and approval no later than 60 days before the date that the Permittee plans to demonstrate compliance.

Periodic Testing/Fuel Analysis Requirements

- q. If the Permittee uses performance testing to demonstrate compliance with the standard, the Permittee must conduct all applicable performance tests on an annual basis, unless it meets the requirements listed in i. through iii. below. Annual performance tests, if required, must be completed between 11 and 13 months after the previous performance test.
- i. The Permittee may conduct performance tests less often for a given pollutant if the performance tests for at least 3 consecutive years show the emission rate is less than or equal to 80 percent of the allowable limit.

- In this case, the Permittee need not conduct a performance test for that pollutant for the next 2 years, but must conduct a performance test during each third year and no more than 36 months after the previous performance test.
- ii. If the affected boiler or process heater continues to meet the emission limit, the Permittee may conduct performance tests every third year, but each such performance test must be conducted no more than 36 months after the previous performance test.
 - iii. If a performance test shows noncompliance with an emission limit, the Permittee must conduct annual performance tests for that pollutant until all performance tests over a consecutive 3-year period show the emission rate is less than or equal to 80 percent of the allowable limit.
- r. If the Permittee uses fuel analysis to demonstrate compliance with the standard, the Permittee must conduct a fuel analysis on an annual basis for each fuel which contributes at least 10% of the 12-month average heat input of the fuels burned in the boiler. Each fuel analysis shall be conducted between 11 and 13 months after the previous analysis. If a fuel analysis shows a potential exceedance of an emission limitation in condition 2.1 K.8.a above, the Permittee shall conduct a follow-up stack test of the affected source within 90 days. If the Permittee cannot conduct a follow-up test within 90 days or if the follow-up test shows an exceedance of the emission limitation in condition 2.1 I.8.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109.
 - s. If all fuel samples show a compound is below the detection limit, emissions of that compound can be considered zero. If some samples show the compound is detected, any non-detect values shall be considered at half the detection limit.

Recordkeeping Requirements

- t. The Permittee shall maintain the following in a logbook (written or electronic format) on-site and make available to an authorized representative upon request:
 - i. A copy of each notification and report required by this standard, including all documentation supporting any Notification of Compliance Status;
 - ii. Records of performance tests, fuel analyses, or other compliance demonstrations, and CEMS and CMS performance evaluations including calculations and supporting documentation;
 - iii. Records of the CEMS and CMS measurements needed to demonstrate compliance with a relevant standard (including, but not limited to raw performance testing and evaluation measurements);
 - iv. A record of each period during which a CEMS or CMS is malfunctioning or inoperative (including out-of-control periods);
 - v. Records of all CEMS and CMS calibration checks and all adjustments and maintenance performed on the CEMS and CMS;
 - vi. Records of all monitoring data and calculated averages for applicable operating limits, such as pressure drop and flow rate, used to demonstrate compliance with the standard;
 - vii. Records of monthly fuel use by each affected source, including the type(s) of fuel and amount(s) used
 - viii. If the Permittee limits the firing of a specific fuel to less than 10% on 12-month average heat input basis, he shall create and retain the following records at least once per calendar month:
 - A. Record the fuel use by each affected source, including the type(s) of fuel and amount(s) used, during the previous calendar month; and,
 - B. Calculate the 12-month average heat input from each fuel for each affected source during the previous 12-month period.

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

- u. **Notification of Compliance Status.** The Permittee shall submit a Notification of Compliance Status in accordance with 40 CFR 63.9(h)(2)(ii) within 60 days of completion of the final performance test or fuel analyses required for the initial compliance demonstration. The Notification of Compliance Status report must contain the following information, as applicable:
 - i. A description of the boiler including the fuels combusted, heat input capacity, and add-on controls used.
 - ii. A justification for the fuel(s) burned during the initial performance test.
 - iii. A summary of the results of all performance tests and calculations conducted to demonstrate initial compliance.
 - iv. A justification for establishing the liquid flow rate, effluent pH, and pressure operating ranges for each scrubber.
 - v. A certification signed by the Responsible Official that the facility has met all applicable emission limits and work practice standards.

- v. **Semiannual Summary Report.** The Permittee shall submit a summary report 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. The first summary report shall be required following the initial compliance date, but no earlier than July 30, 2014. The report shall include the following:
 - i. The company name and address;
 - ii. A 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;
 - iii. The date of report and beginning and ending dates of the reporting period;
 - iv. The highest 30-day rolling average CO concentration measured during the preceding six-month period and identification of all periods during which the 30-day rolling average CO concentration exceeded the applicable emission limitation in Section 2.1.I.8.a above;
 - v. Identification of all periods during which the 12-hour average scrubber liquid flow rate, pressure drop, and/or effluent pH was measured outside of the allowable operating range;
 - vi. A summary of the results of any annual stack tests or fuel analyses performed during the preceding six-month period; and
 - vii. A certification signed by the Responsible Official that the facility has met all applicable emission limits and work practice standards.
- w. **Startup, Shutdown, and Malfunction Report.** The facility shall comply with the startup, shutdown, and malfunction requirements in 15A NCAC 2D .0535.

J. Bark Feed System Group (ID No. G1150) consisting of Hog Fuel Storage Silo (ID No. ES-11-TK-006) and associated Transfer Cyclone (ID No. ES-11-PU-003), and

Sawdust Feed System Group (ID No. G1151) consisting of Sawdust Blower (ID No. ES-01-PU-020) and associated Transfer Cyclone (ID NO. ES-11-PU-004).

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

Regulated Pollutant	Limits/Standards	Applicable Regulations
Particulate Matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons per hour -OR- $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons per hour Where: E = allowable emission rate in pound per hour P = process weight rate in tons per hour	15A NCAC 2D .0515
Visible Emissions	<u>Affected Source: (ID No. G1151)</u> 40 percent opacity <u>Affected Source: (ID No. G1150)</u> 20 percent opacity	15A NCAC 2D .0521

1. 15A NCAC 2D .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: [15A NCAC 2D .0515(a)]
 $E = 4.10 \times P^{0.67}$ calculated to three significant figures for process rates less than or equal to 30 tons per hour,
or
 $E = 55.0 \times P^{0.11} - 40$ calculated to three significant figures for process rates greater than 30 tons per hour,

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

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

Testing [15A NCAC 2D .2601]

- 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 2D .0515.

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

- c. Particulate matter emissions from these sources shall be controlled by the cyclones. To assure compliance, the Permittee shall perform inspections and maintenance, 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 calendar year not to exceed 14 months from the previous inspection) internal inspection of the cyclones' structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and cyclones 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 cyclones; and
 - iv. any corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

- e. The Permittee shall submit the results of any maintenance performed on the cyclones 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 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from the Sawdust Feed System (ID Nos. G1151) shall not be more than **40 percent opacity** when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 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 90 percent opacity. [15A NCAC 2D .0521 (c)]
- b. Visible emissions from the Bark Feed System (ID Nos. G1150) shall not be more than **20 percent opacity** when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

Testing [15A NCAC 2D .2601]

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

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

- d. To assure compliance, once a month the Permittee shall observe the emission points of the sources for any visible emissions above normal. The Permittee shall establish Anormal \cong for the source in the first 30 days following the effective date of permit 01649T39. If visible emissions from any source are observed to be above normal, the Permittee shall either:
- i. take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2601 (Method 9) for 12 minutes is below the limit given above.

If the Permittee elects to take action pursuant to paragraph (i) above and the emissions observation is still not normal, the Permittee will be deemed in noncompliance with 15A NCAC 2D .0521 unless, within the same

monitoring period, the demonstration required in paragraph (ii) is performed and recorded. Alternatively, the Permittee may take action in accordance with (ii) directly.

Recordkeeping [15A NCAC 2Q .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 2D .0521 if these records are not maintained.

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

- f. The Permittee shall submit a summary report of the monitoring 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.

K. No. 2 and No. 3 Package Boilers (ID No. ES-11-CU-033 and ES-11-CU-034; 185 million Btu per hour maximum permitted heat input rate each firing No. 2 and No. 6 fuel oil); and

No. 4 Package Boiler (ID No. ES-11-CU-035; 245 million Btu per hour maximum permitted heat input rate firing natural gas and No. 2 fuel oil)

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

Regulated Pollutant	Limits/Standards	Applicable Regulations
Particulate matter	<u>For No. 2 and No. 3 Package Boilers (ES-11-CU-033/34)</u> 0.19 pounds per million Btu heat input <u>For No. 4 Package Boiler (ES-11-CU-035)</u> 0.17 pounds per million Btu heat input	15A NCAC 2D .0503
Sulfur dioxide	2.3 pounds per million Btu heat input.	15A NCAC 2D .0516
Visible emissions	<u>For No. 2 and No. 3 Package Boilers (ES-11-CU-033/34)</u> 20 percent opacity	15A NCAC 2D .0521
Nitrogen oxides	<u>For No. 4 Package Boiler (ES-11-CU-035)</u> 0.10 lbs/million Btu heat input with low heat release rates \leq 70 Btu/hr-ft ³	15A NCAC 2D .0524 40 CFR Part 60, Subpart Db §60.44b (b)(1)
Sulfur dioxide	<u>For No. 4 Package Boiler (ES-11-CU-035)</u> Burn low sulfur fuel oil with no more than a 0.3 percent sulfur content by weight and/or gaseous fuels with a potential SO ₂ emission rate of no more than 0.32 lb/MMBtu.	15A NCAC 2D .0524 40 CFR Part 60, Subpart Db §60.42b (j)
Visible emissions	<u>For No. 4 Package Boiler (ES-11-CU-035)</u> 20 percent opacity	15A NCAC 2D .0524 40 CFR Part 60, Subpart Db §60.43b (f)
Toxic air pollutants	See Permit Condition 2.2 D STATE-ONLY REQUIREMENT	15A NCAC 2D .1100
Hazardous air pollutants	<u>For No. 2 and No. 3 Package Boilers (ES-11-CU-033/34)</u> From No. 2 fuel oil firing: Work Practice Standards From No. 6 fuel oil firing: Total Selected Metals (As and Cr ⁶⁺): 0.002 lbs/MMBtu CO: 28 ppmvd, corrected to 7% O ₂	15A NCAC 2D .1109 [CAA § 112(j)]
Hazardous Air Pollutants	<u>For No. 4 Package Boiler (ES-11-CU-035)</u> Work Practices	15A NCAC 2D .1111 40 CFR Part 63, Subpart DDDDD
Carbon monoxide Nitrogen oxides Particulate matter (PM) PM ₁₀ PM _{2.5} Sulfur dioxide CO ₂ equivalent	<u>Combined Emissions from All Package Boilers (ES-11-033/034/035)</u> 156.0 tons per year 123.2 tons per year 63.2 tons per year 42.1 tons per year 29.8 tons per year 488.2 tons per year 112,468 tons per year	15A NCAC 2Q .0317 Avoidance of 15A NCAC 2D .0530
Toxic air pollutants	See Permit Condition 2.2 E STATE-ONLY REQUIREMENT	15A NCAC 2Q .0711

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

- a. Emissions of particulate matter from the combustion of fuel oil that are discharged from these boilers (ID Nos. ES-11-033 and ES-11-034) into the atmosphere shall not exceed **0.19 pounds per million Btu heat input**. [15A NCAC 2D .0503(a)]
- b. Emissions of particulate matter from the combustion of fuel oil that are discharged from this boiler (ID Nos. ES-11-035) into the atmosphere shall not **exceed 0.17 pounds per million Btu heat input**. [15A NCAC 2D .0503(a)]

Testing [15A NCAC 2D .2601]

- c. If emissions testing is required, the testing shall be performed in accordance General Condition JJ utilizing EPA Methods 1 through 5 or other test methods per a DAQ-approved test protocol. If the results of this test are above the limit given in Section 2.1 K.1. a. or b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

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

- d. No monitoring/recordkeeping/reporting is required from the firing of natural gas or No. 2 or No. 6 fuel oil in these boilers for this regulation.

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

- a. Emissions of sulfur dioxide from this source shall not exceed **2.3 pounds per million Btu heat input**. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

Testing [15A NCAC 2D .2601]

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

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

- c. The maximum sulfur content of No. 6 fuel oil received and burned in the boilers (ID Nos. ES-11-033 and ES-11-034) shall not exceed 2.1 percent by weight. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur content of the fuel oil exceeds this limit.
- d. To assure compliance, the Permittee shall monitor the sulfur content of the No. 6 fuel oil by using fuel oil supplier certification per month. The results of the fuel oil supplier certifications shall be recorded in a logbook (written or electronic format) on a quarterly basis and include the following information:
 - i. the name of the fuel oil supplier;
 - ii. the sulfur and heat content of each fuel oil shipment received during the quarter;
 - iii. the method used to determine the sulfur and heat content of the fuel oil; and
 - iv. a certified statement signed by the responsible official that the records of fuel oil supplier certification submitted represent all of the fuel oil fired received during the period.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur content of the oil is not monitored and recorded.

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

- e. The Permittee shall submit a summary report of the fuel oil supplier certifications postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. The Permittee must submit a certified statement signed by the responsible official that the records of fuel oil supplier certification submitted represent all of the fuel oil fired during the period.

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

- a. Visible emissions from the Package Boilers (ID Nos. ES-11-CU-033 and ES-11-CU-034) shall not be more than **20 percent opacity** when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(c)]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 K.3. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, once a day the Permittee shall observe the emission points of these sources for any visible emissions above normal. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall be allowed three (3) days of absent observations per semi-annual period. If the emission source(s) is not operating, a record of this fact along with the corresponding date and time shall substitute for the daily observation. The Permittee shall establish normal for the source in the first 30 days following the effective date of permit 01649T39. If visible emissions from this source are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 I.3. a. above.
 If the Permittee elects to take action pursuant to paragraph (i) above and the emissions observation is still not normal, the Permittee will be deemed in noncompliance with 15A NCAC 2D .0521 unless, within the same monitoring period, the demonstration required in paragraph (ii) is performed and recorded. Alternatively, the Permittee may take action in accordance with (ii) directly.

Recordkeeping [15A NCAC 2Q .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 2D .0521 if these records are not maintained.

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

- e. The Permittee shall submit a summary report of the 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.

For No. 4 Package Boiler (ID No. ES-11-CU-035)

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

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

NSPS Emission Limitations

- b. As required by 15A NCAC 2D .0524, the following permit limits shall not be exceeded when firing natural gas or No. 2 fuel oil in boiler (ID No. ES-11-CU-035):

Affected Facility	Pollutant	Emission Limit
ES-11-CU-035	Nitrogen Oxides 40 CFR 60.44b (a)(1)(i)	0.10 pounds per million Btu heat input for boilers with a low heat release rate.
	Sulfur Dioxide 40 CFR 60.42b(d)	Fuel oil sulfur content not to exceed 0.3% by weight
	Opacity 40 CFR 60.43b(f)	20 percent opacity six minute average except for one six-minute period per hour of not more than 27% opacity

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

- c. The Permittee shall conduct an initial performance test as required under 40 CFR § 60.8 using a continuous emissions monitoring system (CEMS) to record hourly NO_x emissions for 30 successive boiler operating days and calculate a 30-day average hourly emission rate to determine compliance with the NO_x limitation in Section 2.1.K.4.b above.
- d. The Permittee shall conduct an initial performance test as required under 40 CFR § 60.8 to determine compliance with the opacity limits in Section 2.1.K.4.b above.
- e. The Permittee shall conduct subsequent performance tests to demonstrate ongoing compliance with the opacity limits, as requested by the Regional Air Quality Supervisor, in accordance with General Condition JJ, following the procedures and reference methods in 40 CFR § 60.46b.
- f. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if any of the test results exceed a limit in Section 2.1.K.4.b above.

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

- g. The Permittee shall install, calibrate, maintain, and operate a CEMS for measuring and recording 1-hour average NO_x and O₂(or CO₂) emission rates in lb/MMBtu heat input during all periods of boiler operation, except for periods of CEMS breakdowns and repairs, in accordance with §60.13 and §60.48b. Data shall be recorded during calibration checks, and zero and span adjustments.
- h. Fuel supplier certification shall be used to demonstrate the maximum sulfur content is not exceeded as described in 40 CFR § 60.46b(r)(1).
- i. The Permittee shall monitor visible emissions from the boiler according to a written site-specific monitoring plan approved by the Regional Air Quality Supervisor.
- j. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if NO_x and opacity emissions from the boiler are not monitored as specified in Section 2.1.K.4.g and i above or if fuel certification is not performed.

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

- k. Pursuant to 40 CFR 60.49b(d) the Permittee shall record and maintain records of the amounts of each fuel burned during each day.
- l. Pursuant to 40 CFR 60.49b(f), the Permittee shall record and maintain records of opacity.
- m. Pursuant to 40 CFR 60.47b(f) and 60.49b(r), the Permittee shall obtain and maintain at the facility fuel receipts from the supplier that certify that:
 - i. the gaseous fuel meets the definition of natural gas as defined in 40 CFR 60.41b; and
 - ii. the oil meets the definition of distillate oil as defined in 40 CFR 60.41b and the applicable sulfur limit of 0.3 weight percent sulfur.
- n. Pursuant to 40 CFR 60.7(f), the Permittee shall maintain records of all measurements, including CEMS data, routine monitoring data, performance testing measurements; CEMS performance evaluations, calibration checks, adjustments, and maintenance performed; and all other information required by 40 CFR 60 Subpart A and Subpart Db recorded in an on-site logbook (written or electronic format) and made available to an authorized representative upon request. The records shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the records in Section 2.1.K.4.k through n are not maintained.

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

- o. In addition to any other reporting required by 40 CFR § 60.49b or notification requirements to the EPA, the Permittee is required to submit to the DAQ in writing of the following:
 - i. a quarterly summary report of any excess NO_x emissions. If there are no excess emissions during the calendar quarter, the Permittee shall submit a report semiannually stating that no excess emissions occurred during the semiannual reporting period. The Permittee shall include a summary of the CEMS performance with all quarterly and semiannual NO_x emissions reports.
 - ii. submit a semiannual report certifying that only very low sulfur oil meeting the definition in 40 CFR 60.41b, and natural gas were combusted in boiler (ID No. ES-11-CU-035) during the reporting period.
- p. The quarterly excess emissions reports shall be postmarked on or before January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 for the calendar year for the preceding three-month period

between July and September. The semiannual reports shall be postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 for the calendar year for the preceding six-month period between January and June. All records required under this section shall be maintained by the owner or operator of an affected facility for a period of two years following the date of such record.

For No. 2 and No. 3 Package Boilers (ID Nos. ES-11-CU-033 and ES-11-034)

5. 15A NCAC 2D .1109: CAA § 112(j); Case-by-Case MACT for Existing Boilers

Emission Limitations for Operating Scenario 1 –No. 6 Fuel Oil Firing

- a. Emissions from the firing of No. 6 residual fuel oil in the No. 2 and No. 3 Package Boilers (ID No. ES-11-CU-033 and ES-11-CU-034) shall not exceed the limitations listed below:

Pollutant	Emission Limitations for the No. 2 Package Boiler (30 day rolling average)	Emission Limitations for the No. 3 Package Boiler (30 day rolling average)
Hydrogen chloride equivalent ¹	8.26 lb/hr	8.26 lb/hr
Hydrogen cyanide (HCN)	0.0593 lb/hr	0.0593 lb/hr
Hydrogen fluoride (HF)	0.0484 lb/hr	0.0484 lb/hr
Mercury (Hg)	0.000146 lb/hr	0.000146 lb/hr
Total Selected Metals (TSM) ² arsenic (As) + chromium VI (Cr ⁶⁺)	0.002 lb/MMBtu	
Total Selected Metals (TSM) ² arsenic (As) + Beryllium (Be) + Cadmium (Cd) + Selenium (Se) + chromium VI (Cr ⁶⁺)		0.002 lb/MMBtu
Beryllium (Be)	0.000555 lb/hr	
Cadmium (Cd)	0.000491 lb/hr	
Lead (Pb)	0.182 lb/hr	0.182 lb/hr
Manganese (Mn)	0.0141 lb/hr	0.0141 lb/hr
Nickel (Ni)	0.259 lb/hr	0.259 lb/hr
Selenium (Se)	0.000842 lb/hr	
Carbon Monoxide (CO) <i>measured on a 30-day average</i>	28 ppmvd @ 7% O ₂	28 ppmvd @ 7% O ₂

1. HCl-equivalent is defined by the following equation:

$$E = E_{HCl} + E_{Cl_2} * (RfC_{HCl} / RfC_{Cl_2})$$

Where:

- E = HCl-equivalent emission rate (in lbs/hr);
- E_{HCl} = Hydrogen chloride emission rate (in lbs/hr);
- E_{Cl₂} = Chlorine emission rate (in lbs/hr);
- RfC_{HCl} = Reference concentration for HCl (20 µg/m³); and
- RfC_{Cl₂} = Reference concentration for Cl₂ (0.20 µg/m³)

- b. The emissions limitations in Section 2.1.K.4.a above and the associated monitoring, recordkeeping, and reporting shall only apply when at least 10% of the fuel fired in a boiler on a 12-month rolling average heat input basis is No. 6 fuel oil. If the Permittee fires less than 10% No. 6 fuel oil in a boiler on a 12-month rolling average heat input basis, only the work practices and recordkeeping requirements in Sections 2.1.K.5.g, h, and j shall apply for that combustion source. **The initial compliance date for these emission limitations and associated testing, boiler inspection and maintenance, monitoring, recordkeeping, and reporting requirements is February 21, 2014.**

- c. If, after the compliance date, the average heat input of No. 6 fuel oil for a boiler is equal to or greater than 10% for any 12-month period and if the Permittee has not previously conducted the initial compliance test for that boiler, the Permittee shall conduct an initial compliance test within **90 days** following the end of the 12-month period (unless such date is *earlier than* 180 days following the initial compliance date, in which case the test shall be performed 180 days following the initial compliance date). Monitoring and recordkeeping requirements associated with No. 6 fuel oil firing shall be implemented as soon as practicable, and in no case later than **90 days** following the end of the 12-month period.

Continuous Emissions Monitoring System (CEMS) for Carbon Monoxide for Operating Scenario 1 –No. 6 Fuel Oil Firing

- d. The Permittee shall develop a site-specific monitoring plan for each required CEMS and submit to the NC DAQ Stationary Source Compliance Branch (SSCB) at least 60 days before the initial performance evaluation of the CEMS.
- e. The Permittee shall install, operate, and maintain a continuous emission monitoring system (CEMS) for carbon monoxide (CO) and oxygen (O₂) according to the procedures listed in i. through vi. below for each boiler firing No. 6 fuel oil. CO and O₂ shall be monitored at the same location at the outlet the boiler.
- i. The Permittee must install, operate, and maintain each CEMS according to the applicable procedures under Performance Specification (PS) 3 or 4A of 40 CFR 60, Appendix B and according to the site-specific monitoring plan in Condition 2.1.K.5.d above.
 - ii. The Permittee must conduct a performance evaluation of each CEMS according to the requirements in 40 CFR 63.8 and according to PS 4A of 40 CFR 60, Appendix B.
 - iii. The Permittee must complete for each CEMS a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
 - iv. The Permittee must reduce the CEMS data as specified in 40 CFR 63.8(g)(2) and calculate and record a 30-day rolling average emission rate on a daily basis. A new 30-day rolling average emission rate is calculated as the average of all of the hourly CO emission data for the preceding 30 operating days.
 - v. Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee must monitor continuously (or collect data at all required intervals) at all times that the affected source is operating.
 - vi. For purposes of calculating data averages, the Permittee may not use data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities, or when the boiler or process heater is operating at less than 50 percent of its rated capacity. The Permittee must use all the data collected during all other periods in assessing compliance.
- f. If a 30-day rolling average CO concentration exceeds the applicable CO emission limitation in Section 2.1. K.5.a above, the Permittee shall be deemed in non-compliance with 15A NCAC 2D .1109.

Boiler Inspection and Maintenance for Operating Scenarios 1 and 2 – No. 6 and No. 2 Fuel Oil Firing

- g. For boilers (ID No. ES-11-CU-033 and ES-11-CU-034), the Permittee shall perform an annual inspection and maintenance as recommended by the manufacturer, or as a minimum, the inspection and maintenance requirement shall include the following:
- i. Inspect the burners, and clean or replace any components of the burners as necessary;
 - ii. Inspect the flame pattern and make any adjustments to the burners necessary to optimize the flame pattern; and,
 - iii. Inspect the system controlling the air-to-fuel ratio and ensure that it is correctly calibrated and functioning properly.
 - iv. The Permittee shall conduct at least one tune-up per calendar year to demonstrate compliance with this requirement.
- h. The results of any required annual burner 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 of each recorded action;
 - ii. The results of each inspection; and,
 - iii. The results of any maintenance performed on the boilers.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if the inspection and maintenance records are not maintained.

Compliance Demonstration for Operating Scenario 1 –No. 6 Fuel Oil Firing [15A NCAC 2Q .0508(f)]

- i. The Permittee shall demonstrate compliance with each emission limitations listed in Section 2.1.K.5.a above for each boiler by either of the following methods:
- i. **Initial and Periodic Stack Testing.** Stack testing shall be performed for the boiler while firing No. 6 fuel oil at the maximum normal operating load in accordance with 15A NCAC 2D .2601 and General Condition JJ in Section 3 of this permit. The initial stack test shall be performed within 180 days of the initial compliance date or in accordance with the time schedule in Section 2.1.K.5.c above. Thereafter, each stack test shall be conducted between 11 and 13 months after the previous stack test. However, if a stack test shows that the emission rates of hazardous air pollutants are less than or equal to 80 percent of the allowable limit, the stack test frequency may be reduced to once every five years for that pollutant.
 - ii. **Fuel Analysis.** Fuel analysis shall be conducted in accordance with the site-specific fuel analysis plan approved May 2006 or an alternate plan approved by the NC DAQ - SSCB prior to the initial compliance demonstration. Within 180 days of the initial compliance date, the Permittee shall perform the initial fuel analyses. Thereafter, each fuel analysis shall be conducted between 11 and 13 months after the previous analysis. If a fuel analysis shows a potential exceedance of an emission limitation in Sections 2.1 K.5.a above, the Permittee shall conduct a follow-up stack test of the affected source within 90 days.
 - iii. No performance testing is required for CO if the facility demonstrates compliance using a CEMS.
 - iv. No performance testing or fuel analysis is required for HF and HCN.
- If stack testing shows an exceedance of an emission limit in Section 2.1.K. 5.a above, the Permittee shall be deemed in non-compliance with 15A NCAC 2D .1109.

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

- j. The Permittee shall create and retain the following records at least once per calendar month:
- i. The Permittee shall record the fuel use by each affected source, including the type of fuel and amount of fuel used, during the previous calendar month; and,
 - ii. The Permittee shall calculate the annual average heat input from distillate fuel oil and from residual fuel oil for each affected source during the previous 12-month period.
- k. The Permittee shall maintain a copy of each notification and report required by this standard, including all documentation supporting any Notification of Compliance Status.
- l. The Permittee shall maintain records of performance tests, fuel analyses, and CEMS performance evaluations.
- m. For each CEMS, the Permittee shall maintain the following records:
- i. All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CEMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);
 - ii. A record of each period during which a CEMS is malfunctioning or inoperative (including out-of-control periods);
 - iii. All CEMS calibration checks; and,
 - iv. All adjustments and maintenance performed on CEMS.

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

- n. **Notification of Compliance Status.** The Permittee shall submit a Notification of Compliance Status that meets the requirements of 40 CFR 63.9(h)(2)(ii) before the close of business on the 60th day following the completion of the final required performance test and/or other initial compliance demonstration. The Notification of Compliance Status report must contain the following information, as applicable:
- i. A description of the affected source(s) including identification of which subcategory the source is in, the capacity of the source, a description of the add-on controls used on the source description of the fuel(s) burned, and justification for the fuel(s) burned during the performance test.
 - ii. Summary of the results of all performance tests and calculations conducted to demonstrate initial compliance.
 - iii. A certification signed by the Responsible Official that the facility has met all applicable emission limits and work practice standards.
- o. **Semiannual Summary Report.** The Permittee shall submit a summary report by January 30 of each calendar year for the preceding six-month period between July and December, and by July 30 of each calendar year for the preceding six-month period between January and June. The first summary report shall be required following the initial compliance date, but no earlier than July 30, 2014. The report shall include the following:
- i. The company name and address;
 - iv. A statement by a responsible official with that official's name, title, and signature, certifying the truth,

- v. accuracy, and completeness of the content of the report;
 - vi. The date of report and beginning and ending dates of the reporting period;
 - vii. The highest 30-day rolling average CO concentration measured during the preceding six-month period and identification of all periods during which the 30-day rolling average CO concentration exceeded the applicable emission limitation in Section 2.1.K.5.a above;
 - viii. A summary of the results of any annual stack tests or fuel analyses performed during the preceding six-month period; and
 - ix. A certification signed by the Responsible Official that the facility has met all applicable emission limits and work practice standards.
- p. Startup, Shutdown, and Malfunction Report. The facility shall comply with the startup, shutdown, and malfunction requirements in 15A NCAC 2D .0535.

For No. 4 Package Boiler (ID No. ES-11-CU-035)

6. 15A NCAC 02D .1111 National Emission Standard for Hazardous Air Pollutants, 40 CFR Part 63, Subpart DDDDD – Boiler and Process Heaters

- a. The Permittee shall use best combustion practices when operating the boiler (ID No. ES-11-CU-035).
 - b. The Permittee shall operate the boiler (ID No. ES-11-CU-035) to meet the “unit designed to burn gas 1 subcategory” definition in 40 CFR 63.7575.
- Work Practice** [40 CFR 63.7540(a)(10) and 63.7515(e)]
- c. Within 12 months of initial startup of the boiler (ID No. ES-11-CU-035) and annually thereafter, the Permittee shall conduct a boiler tune-up as recommended by the manufacturer. As a minimum, the Permittee shall perform the following for each tune-up:
 - a. Inspect the burner, and clean or replace any components of the burner as necessary;
 - b. Inspect the flame pattern and make any adjustments to the burner necessary to optimize the flame pattern consistent with the manufacturer’s specifications;
 - c. Inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly;
 - d. Optimize the total emissions of carbon monoxide consistent with the manufacturer’s specifications; and
 - e. Measure in the effluent stream the concentration of carbon monoxide in parts per million volume dry (ppmvd) and the percent oxygen on a volume basis before and after the adjustments are made.
 - d. Annual boiler tune-ups must be performed no more than 13 months from the previous tune-up. If the boiler is not in operation during the time of the required tune-up, the tune-up may be delayed, provided the Permittee conducts the tune-up within one week of the boiler resuming operations. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if the affected boiler is not inspected and maintained as required above.
- Recordkeeping** [15A NCAC 2Q .0508(f) and 40 CFR 63.7555 and 63.7560]
- e. Following initial startup of the boiler, the Permittee shall maintain in a logbook (written or electronic format) a record of each boiler tune-up and the number of hours that No. 2 fuel oil is burned during testing or periods of gas curtailment or gas supply emergencies and make available to an authorized representative upon request. The Permittee shall maintain all records for a period of five years during which time the records shall be kept onsite for at least the first two years. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if these records are not maintained.
- Reporting** [15A NCAC 2Q .0508(f) and 40 CFR 63.7545 and 63.7550]
- f. The Permittee shall submit a notification of the actual date of boiler startup signed by the responsible official and delivered or postmarked no later than 15 calendar days of startup of the boiler.
 - g. The Permittee shall submit a notification of alternative fuel use within 48 hours of natural gas curtailment or supply interruption in accordance with 40 FR 63.7545(f).
 - h. The Permittee shall submit, by January 30th of each calendar year for the preceding twelve-month period between January and December of each calendar year, a summary report containing the concentrations in the boiler effluent stream of CO (ppmvd) and oxygen (percent volume basis) measured before and after the adjustments of the boiler and a description of any corrective actions taken as a part of the combustion adjustment.

**7. 15A NCAC 2Q. 0317: AVOIDANCE CONDITIONS for
15A NCAC 2D .0530: Prevention of Significant Deterioration**

- a. In order to avoid applicability of 15A NCAC 2D .0530(g) for major sources and major modifications, the combined emissions from boilers (ID Nos. ES-11-033, ES-11-034, and ES-11-035) into the atmosphere per each consecutive 12-month period shall not exceed any of the following emission limits:

Pollutant	Emission Limit (tons/12-month period)
Carbon monoxide	156.0
Nitrogen oxides	123.2
Particulate matter (PM)	63.2
PM ₁₀	42.1
PM _{2.5}	29.8
Sulfur dioxide	488.2
CO ₂ equivalent	112,468.0

[15A NCAC 2D .0530]

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

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 K.7 a, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

- c. The Permittee shall keep monthly records of the amount of fuel used and the sulfur content, including certification of the sulfur content of the fuel, in a logbook (written or in electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the sulfur content of the fuel is not monitored.

Reporting [15A NCAC 2Q .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 periods between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
- i. The monthly carbon monoxide, nitrogen oxides, PM, PM₁₀, PM_{2.5}, sulfur dioxide, and CO₂ equivalent emissions in tons for the previous 17 months from the three package boilers combined. The emissions must be calculated for each of the 12-month periods over the previous 17 months;
 - ii. The monthly quantities of natural gas, No. 2 fuel oil, and No. 6 fuel oil consumed in each boiler (ID Nos. ES-11-033, ES-11-034, and ES-11-035) for the previous 17 months; and
 - iii. The average sulfur content of the No. 2 fuel oil and the No. 6 fuel oil fired in the boilers (ID Nos. ES-11-033, ES-11-034, and ES-11-035).

L. Temporary Boiler Groups (ID Nos. G1154 through G1157) consisting of Four Temporary Boilers (ID Nos. ES-11-CU-044 through ES-11-CU-047) – No. 2 fuel oil-fired boilers (96 million Btu per hour maximum permitted heat input rate each).

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

Regulated Pollutant	Limits/Standards	Applicable Regulations
Particulate Matter	0.16 pounds per million Btu heat input	15A NCAC 2D .0503
Sulfur Dioxide	0.5 percent sulfur content fuel	15A NCAC 2D .0524 NSPS (40 CFR 60, Subpart Dc)
Visible Emissions	20 percent opacity	15A NCAC 2D .0524 NSPS (40 CFR 60, Subpart Dc)
Toxic air pollutants	See Permit Condition 2.2 D STATE-ONLY REQUIREMENT	15A NCAC 2D .1100
Sulfur Dioxide Nitrogen Oxides	Less than 40 tons per consecutive twelve month period.	15A NCAC 2Q .0317 (15A NCAC 2D .0530 Avoidance)
N/A	On site less than 180 days per consecutive twelve month period.	15A NCAC 2Q .0317 (15A NCAC 2D .1109 Avoidance)
Toxic air pollutants	See Permit Condition 2.2 E STATE-ONLY REQUIREMENT	15A NCAC 2Q .0711

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

- a. Emissions of particulate matter from the combustion of fuel oil that are discharged from these sources into the atmosphere shall not exceed **0.16 pounds per million Btu heat input**. [15A NCAC 2D .0503(a)]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance General Condition JJ utilizing EPA Methods 1 through 5 or other test methods per a DAQ-approved test protocol. If the results of this test are above the limit given in Section 2.1 L. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

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

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

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

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

Emission Limitations [15A NCAC 2D .0524]

- b. The maximum sulfur content of any fuel oil received and burned in the boilers shall not exceed **0.5 percent by weight**.
- c. Visible emissions shall not exceed **20 percent opacity** (6 minute average) except for one six minute period per hour but not more than 27 percent opacity when firing fuel oil.

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

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

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if sulfur dioxide emissions are not monitored as described above.

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

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

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

- f. In addition to any other reporting required by 40 CFR § 60.48c or notification requirements to the EPA, the Permittee is required to **NOTIFY** the DAQ in **writing** of the following:
- i. a summary report, acceptable to the Regional Air Quality Supervisor, of the sulfur content of the distillate fuel oil fired, by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June as follows:
- (A) **Distillate Oil** - Fuel supplier certification shall include the following information:
- (1) the name of the oil supplier;
 - (2) a statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR § 60.41c; and
 - (3) a certified statement signed by the owner or operator of an affected facility that the records of fuel supplier certification submitted represents all of the fuel fired during the semi annual period.

**3. 15A NCAC 2Q. 0317: AVOIDANCE CONDITIONS for
15A NCAC 2D .0530: Prevention of Significant Deterioration**

- a. In order to avoid applicability of 15A NCAC 2D .0530 (g) for major sources and major modifications, the temporary boilers shall discharge into the atmosphere less than **40 tons of sulfur dioxide or nitrogen oxides per consecutive twelve month period.**

Testing [15A NCAC 2D .2601]

- 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 limits given in Section 2.1 L.3. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

- c. To ensure that emissions are less than the above-specified limits;
- i. the Permittee shall not burn a more than a total of **2,634,240** gallons of No. 2 fuel oil in the boilers per consecutive twelve (12) month period.; and
 - ii. the sulfur content of the No. 2 fuel oil shall not exceed 0.2 percent by weight.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the amount of fuel burned or fuel sulfur content exceeds these limits.
- d. To ensure compliance, the Permittee shall maintain records as follows
- i. the Permittee shall record and maintain records of the amounts (in gallons) of No. 2 fuel oil burned in the boilers during each month; and
 - ii. the Permittee shall follow the monitoring and recordkeeping per Specific Conditions 2.1 L.2. d-e to monitor the fuel sulfur content.
- The record of the amounts of fuel (in gallons) burned and fuel sulfur content for each month shall be made available to an authorized representative of DAQ upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the amounts of fuel burned during each month or fuel sulfur content are not recorded.

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

- e. The Permittee shall submit a summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities within 30 days after each calendar year quarter, due and 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 report shall contain the following:
- i. the monthly quantities of fuel oil burned in the boilers for the previous 14 months. The total quantities burned must be calculated for each of the 12-month periods over the previous 14 months;

- ii. the sulfur content of the fuel oil burn in the boilers for each of the 12-month periods over the previous 14 months; and
- iii. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 2Q.0317: AVOIDANCE CONDITIONS for 15A NCAC 2D .1109: CAA § 112(j); Case-by-Case MACT for Boilers & Process Heaters

- a. In order to avoid the applicability of 15A NCAC 2D .1109, the four temporary boilers (ID Nos. ES-11-CU-044 through ES-11-CU-047) shall not remain on site for more than 180 consecutive days. If any of these boilers remains on site for longer than 180 consecutive days, the Permittee shall notify the Regional Office in writing within 10 days of exceeding the 180 day period.

M. One Portable Log Chipper (diesel-fired); ID No. ES-01-PU-014 and One Portable Bark Grinder (diesel-fired); ID No. ES-01-PU-015

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 per hour -OR- $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons per hour Where: E = allowable emission rate in pound per hour P = process weight rate in tons per hour	15A NCAC 2D .0515
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity each	15A NCAC 2D .0521
Nitrogen Oxides	ES-01-PU-014 Less than 40 tons per consecutive twelve month period. ES-01-PU-015 Less than 40 tons per consecutive twelve month period.	15A NCAC 2Q .0317 (15A NCAC 2D .0530 Avoidance)
Toxic air pollutants	See Permit Condition 2.2 D STATE-ONLY REQUIREMENT	15A NCAC 2D .1100
Toxic air pollutants	See Permit Condition 2.2 E STATE-ONLY REQUIREMENT	15A NCAC 2Q .0711

1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (ID Nos. ES-01-PU-014 and ES-01-PU-015) shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

$E = 4.10 \times P^{0.67}$ for process rates ≤ 30 tons per hour, or
 $E = 55.0 \times P^{0.11} - 40$ for process rates > 30 tons per hour

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

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

Testing [15A NCAC 2D .2601]

- 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 M.1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. The Permittee shall maintain records for the log chipper and bark grinder (**ID Nos. ES-01-PU-014 and ES-01-PU-015**) such that the process rates "P" in tons per hour, as specified by the formulas contained above (or the formulas contained in 15A NCAC 2D .0515) can be derived, and shall make these records available to a DAQ authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if production records are not maintained.

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

- a. Emissions of sulfur dioxide from the portable log chipper and the portable bark grinder (**ID No. ES-01-PU-014 and ES-01-PU-015**) shall not exceed **2.3 pounds per million Btu heat input**. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1-M.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from firing diesel fuel.

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

- a. Visible emissions from the portable log chipper and the portable bark grinder (**ID No. ES-01-PU-014 and ES-01-PU-015**) shall not be more than **20 percent opacity** each when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit provided in Section 2.1-M.3.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. For each portable emission source in operation on site, Permittee shall observe once each month the emission points of the source for any visible emissions above normal. The Permittee shall establish normal for the source in the first 30 days of operation. If visible emissions from an emission source are observed to be above normal, the Permittee shall either:

- i. take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
- ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 M.3. a. above.

If the Permittee elects to take action pursuant to paragraph (i) above and the emissions observation is still not normal, the Permittee will be deemed in noncompliance with 15A NCAC 2D .0521 unless, within the same monitoring period, the demonstration required in paragraph (ii) is performed and recorded. Alternatively, the Permittee may take action in accordance with (ii) directly.

Recordkeeping [15A NCAC 2Q .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 2D .0521 if these records are not maintained.

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

- e. The Permittee shall submit a summary report of the 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.

**4. 15A NCAC 2Q. 0317: AVOIDANCE CONDITIONS for
15A NCAC 2D .0530: Prevention of Significant Deterioration**

- a. In order to avoid applicability of 15A NCAC 2D .0530 (g) for major sources and major modifications, the portable log chipper (**ID No. ES-01-PU-014**) shall discharge into the atmosphere less than 40 tons of nitrogen oxides per consecutive twelve month period.
- b. In order to avoid applicability of 15A NCAC 2D .0530 (g) for major sources and major modifications, the portable bark grinder (**ID No. ES-01-PU-015**) shall discharge into the atmosphere less than 40 tons of nitrogen oxides per consecutive twelve month period.

Testing [15A NCAC 2D .2601]

- 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-M.4. a or b above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

- d. To ensure compliance, the Permittee shall record and maintain records as follows:
 - i. for each rental unit, record and maintain records in a logbook of the:
 - A. hours of operation;
 - B. engine type and model;
 - C. rated power for engine output in kW;
 - D. rated power for engine output in hp;
 - E. date manufactured and manufacturer;
 - F. the manufacturers NOx emission factor at maximum rated power, if available, or AP 42 otherwise, and,
 - G. the monthly NOx emissions determined using the information in section 2.1 M.4.d.i A-F above
- The monthly records as specified above for each rental unit shall be made available to an authorized representative of DAQ upon request.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the requirements in 2.1.M.4.d.i A-F are not recorded, the NOx emissions exceed the limit in 2.1 M.4.a or b above, or a rental unit is operated with an engine that triggers NSPS or MACT applicability as determined in 40 CFR 60.4200 or 40 CFR 63.6585.

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

- e. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the monthly hours of operation for the portable log chipper and the portable bark grinder for the previous 17 months.

**N. One Diesel-Fired Fire Water Pump; ID No. ES-FP-001;
Three Diesel-Fired Emergency Generators; ID Nos. ES-EG-001 to ES-EG-003**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity each	15A NCAC 2D .0521
Toxic air pollutants	See Permit Condition 2.2 D STATE-ONLY REQUIREMENT	15A NCAC 2D .1100
Hazardous air pollutants	Comply with work practices beginning May 3, 2013 for existing CI emergency generators with a site rating no more than 500 hp.	15A NCAC 2D .1111 40 CFR Part 63, Subpart ZZZZ
Toxic air pollutants	See Permit Condition 2.2 E STATE-ONLY REQUIREMENT	15A NCAC 2Q .0711

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

- a. Emissions of sulfur dioxide from the emergency engines (ID Nos. ES-FP-001, ES-EG-001, ES-EG-002, and ES-EG-003) shall not exceed **2.3 pounds per million Btu heat input**. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1-N.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from firing diesel fuel.

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

- a. Visible emissions from the emergency engines (ID Nos. ES-FP-001, ES-EG-001, ES-EG-002, and ES-EG-003) shall not be more than **20 percent opacity** each when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit provided in Section 2.1-N.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

Monitoring/Recordkeeping/Reporting

- c. No monitoring, recordkeeping, or reporting is required for visible emissions from the firing of diesel fuel.

3. 15A NCAC 2D 1111, 40 CFR Part 63, Subpart ZZZZ “National Emission Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines (RICE)

Compliance Date [§63.6595 and §63.6605]

- a. The Permittee shall operate and maintain the emergency engines (ID Nos. ES-FP-001, ES-EG-001, ES-EG-002, and ES-EG-003) in a manner consistent with safety and good air pollution control practices for minimizing emissions and comply with the operational restrictions, work practices, recordkeeping and reporting in 40 CFR Subpart ZZZZ beginning May 3, 2013.

O. One Diesel-Fired Lime Kiln Pony Motor; ID No. ES-09-PU-017

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity each	15A NCAC 2D .0521
Multiple emissions	Purchase an engine certified to meet emission standards.	15A NCAC 2D .0524 40 CFR Part 60, Subpart IIII
Toxic air pollutants	See Permit Condition 2.2 D STATE-ONLY REQUIREMENT	15A NCAC 2D .1100
Hazardous air pollutants	Comply with the requirements of 40 CFR 60 Subpart IIII for compression ignition engines.	15A NCAC 2D .1111 40 CFR Part 63, Subpart ZZZZ
Toxic air pollutants	See Permit Condition 2.2 E STATE-ONLY REQUIREMENT	15A NCAC 2Q .0711

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

- a. Emissions of sulfur dioxide from the lime kiln pony motor (ID No. ES-09-PU-017) shall not exceed **2.3 pounds per million Btu heat input**. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1-O.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from firing diesel fuel.

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

- a. Visible emissions from the lime kiln pony motor (ID No. ES-09-PU-017) shall not be more than **20 percent opacity** each when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit provided in Section 2.1-O.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

Monitoring/Recordkeeping/Reporting

- c. No monitoring, recordkeeping, or reporting is required for visible emissions from the firing of diesel fuel.

3. 15A NCAC 2D .0524: NSPS, STANDARDS OF PERFORMANCE FOR STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES [40 CFR 60 SUBPART IIII],

- a. The Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, record keeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart IIII, including Subpart A "General Provisions." [15A NCAC 2D .0524]
- b. The Permittee shall purchase an engine certified to meet the following emission standards for compression ignition (CI) engines for model year 2007 and later for the same model year and maximum engine power:

Exhaust emission standards:

NMHC and NOx (combined): 4.0 g/kW-hr

CO: 5.0 g/kW-hr

PM: 0.3 g/kW-hr

[§60.4205(b), §60.4211(c), and §89.112(a)]

- c. The engine must be installed and configured according to the manufacturer's specifications.
- d. The Permittee shall use diesel fuel in the CI engine of each emergency generator with a sulfur content of less than 15 ppm beginning October 1, 2010. [§60.4207, and §80.510(a) and (b)]

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

- e. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the exhaust emission standards in Section 2.1 O.3.b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

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

- f. Owners and operators of CI internal combustion engines (ICE) must operate and maintain stationary CI ICE that achieve the emissions standards as required in §§60.4204 and 60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine. The Permittee may only change engine settings that are permitted by the manufacturer. The Permittee shall also meet the requirements of 40 CFR 89, 94 and/or 1068 as applicable. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the requirements in this Section are not met. [§60.4206 and §60.4211(a)]
- g. The CI emergency engine shall be equipped with a non-resettable hour meter prior to startup. If the CI engine of each emergency generator is not equipped with a non-resettable hour meter prior to startup, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524. [§60.4209(a)]
- h. The Permittee may operate the CI emergency engine for maintenance checks and readiness testing for up to 100 hours per year provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Operation during an actual emergency shall not be subject to a limit on hours. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Because the Permittee is required to comply with emission standards under §60.4205 for the CI engine in the emergency generator, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the requirements in this Section are not met. [§60.4211(e)]

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

- i. Starting with emergency engine model year 2011, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if these records are not maintained. [§60.4214(b)]

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

- j. No initial notification under §60.7 is required for the emergency use CI engines. [§60.4214(b)]

2.2 - Multiple Emission Sources, Specific Limitations and Conditions

A. 40 CFR 63, Subpart S Affected Sources:

LVHC Sources			
<u>G0208</u> ES-02-PU-003 to ES-02-PU-014 ES-02-PU-015 ES-02-PU-016 ES-02-PU-017 ES-02-PU-018 ES-02-PU-019 ES-02-PU-020 ES-02-PU-024 ES-02-PU-025	<u>Digester System</u> twelve (12) batch digesters: No. 7 Digester through No. 12 digester, and No.14 through No. 19 Digester A-Line Blow Tank B-Line Blow Tank C-Line Blow Tank A-Line Cyclone B-Line Cyclone C-Line Cyclone Secondary Condenser Hot Water Accumulator	ES-09-PU-004 ES-11-CU-001 ES-02-PU-028 ES-16-AS-020	Lime Kiln via closed LVHC NCG collection system No. 1 Power Boiler via closed LVHC NCG collection system vacuum stripper aerated stabilization basin
<u>G0210</u> ES-02-PU-028 ES-02-PU-026 ES-02-PU-027	<u>Stripper System</u> Stripper Column Accumulator Overflow Tank Foul Condensate Tank		
<u>G0719</u> ES-07-PU-004 ES-07-PU-026 ES-07-PU-007 ES-07-PU-008 ES-07-PU-009 ES-03-PU-024 ES-07-PU-027 ES-07-PU-013	<u>Evaporator Group</u> B-Line Evaporators B-Line Surface Condenser Condenser Seal Tank B-Line Hotwell C-Line Evaporators C-Line Concentrators C-Line Surface Condenser C-Line Hotwell		
<u>G2073</u> ES-20-PU-001 ES-20-PU-002 ES-20-TK-003 ES-20-PU-004 ES-20-PU-005 ES-20-PU-006 ES-20-PU-007 ES-20-TK-008 ES-20-PU-009 ES-20-TK-011 ES-20-PU-010	<u>Turpentine Recovery Group</u> North Turpentine Recovery Cyclone South Turpentine Recovery Cyclone Sample Tank North Turpentine Condenser South Turpentine Condenser Secondary Turpentine Condenser Turpentine Heater Primary Turpentine Decanter Underflow Tank Secondary Turpentine Decanter Secondary Turpentine Decanter Underflow Tank Primary Turpentine Decanter		
HVLC Sources*			
<u>G0314</u> ES-03-TK-SRT	<u>Brown Stock Washing System</u> Screen Rejects Tank**	NA	NA

* See 2.2 B for alternative control requirements for HVLC sources under the Equivalency by Permit approach.

** This source is not subject to the HVLC control requirements under 63.443(c) and (d) as total HAP emissions from the screen system (measured as methanol) are less than 0.2 lbs per ton of oven dry pulp.

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Hazardous Air Pollutants	<p><u>LVHC System</u> Route system vents to Lime Kiln or No. 1 Power Boiler</p> <p><u>HVLC System</u> See 2.2 B.</p> <p><u>Pulping Condensate Collection</u> Collect a minimum 7.2 pounds per ton ODTP (15-day rolling average) followed by treatment in the Biological Wastewater Treatment Facility ASB meeting: 92 percent HAP removal, or 6.6 pounds per ton ODP removal</p>	15 A NCAC 2D .1111 (40 CFR 63 Subpart S)

1. 15A NCAC 2D .1111: MACT 40 CFR 63 SUBPART S

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR Part 63 Subpart S, including Subpart A "General Provisions" as defined per 63.440(g) and indicated per Table 1 of Subpart S. These emission standards shall apply at all times except as specified in 40 CFR Part 63.443(e) and 63.446(g). Terms used throughout this section are defined in the Clean Air Act as amended in 1990 and in 40 CFR 63.2 and 63.441. Units and abbreviations are defined in 40 CFR 63.3 [15A NCAC 2D .1111]

Emission Limitations [15A NCAC 2D .1111]

Standards for the LVHC pulping systems at kraft processes [40 CFR 63.443(a)]

- b. The Permittee shall meet the following control requirements for the total HAP emissions from the LVHC system [40 CFR 63, Subpart 63.443]:
- i. Each LVHC system component shall be enclosed and vented into a closed vent system meeting the requirements of 40 CFR 63.450, and routed to:
 - (A) The Lime Kiln by introducing the HAP emission stream with the primary fuel or into the flame zone; or
 - (B) The No. 1 Power Boiler by introducing the HAP emission stream into the flame zone.
- c. Periods of excess emissions reported under Sec. 63.455 shall not be a violation of Sec. 63.443 (c) and (d) provided that the time of excess emissions (excluding periods of startup, shutdown, or malfunction) divided by the total process operating time in a semi-annual reporting period does not exceed
- i. One percent for control devices used to reduce the total HAP emissions from the LVHC system;
 - ii. Four percent for control devices used to reduce the total HAP emissions from both the LVHC and HVLC systems.

Standards for kraft pulping process condensates [40 CFR 63.446].

- d. The pulping process condensates as identified per 40 CFR 63.446(b) shall be conveyed in a closed collection system that is designed and operated to meet the following requirements:
- i. Each closed collection system shall meet the individual drain system requirements specified in 40 CFR 63.960, 63.961, and 63.962, except for closed vent systems;
 - ii. Closed vent systems shall be designed and operated in accordance with 40 CFR 63.450;
 - iii. The process condensate streams collected in total shall contain a minimum of 7.2 pounds of HAP per ton of oven dried pulp produced (based on a 15-day rolling average);
 - iv. Any stripper feed tank shall meet the requirements per 40 CFR 63.446(d)(2); and
 - v. The pulping process condensates collected shall be treated by the vacuum stripper (ID ES-02-PU-028) and the Biological Wastewater Treatment Facility (ID No. G1669) consisting of the Aerated Stabilization Basin (ASB) (ID No. ES-16-AS-020) which shall:
 - (A) Reduce or destroy the total HAPs by at least 92 percent or more by weight; or
 - (B) Remove a minimum of 6.6 pounds per ton of oven dried pulp (ODP); and

- vi. For each steam stripper system used to comply with the requirements specified in paragraph 63.456(e)(3), periods of excess emissions reported under Sec. 63.455 shall not be a violation of paragraphs 63.446(d), (e), and (f) provided that the time of excess emissions (including periods of startup, shutdown, or malfunction) divided by the total process operating time in a semi-annual reporting period does not exceed 10 percent

Testing [15A NCAC 2D .2601]

- e. If emissions testing is required, the testing shall be performed in accordance General Condition JJ. If the results of this test are above the limits given in Section 2.2 A.1 b. through e. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.

Monitoring for the LVHC systems Control Devices [40 CFR 63.453]

- f. No control device parameter monitoring is required for LVHC vents routed to the Lime Kiln or the No. 1 Power Boiler. [40 CFR 60, Subpart 63.453]

Monitoring for the pulping process condensates [40 CFR 63.453]

Condensate Collection:

- g. The Permittee shall install, calibrate, certify, operate, and maintain according to the manufacturer's specifications, a continuous monitoring system (CMS) to monitor condensate stream collection. The CMS shall include a continuous recorder. The CMS shall be operated to ensure that the minimum of 7.2 pounds of HAP per ton of oven dried pulp produced (based on a 15-day rolling average) is collected [40 CFR 63, Subpart 63.453] The CMS shall monitor the following:
 - i. Foul Condensate Tank Outlet Stream flow rate;
 - ii. Accumulator Overflow Tank Outlet Stream flow rate;
 - iii. Foul Condensate Stripper Effluent Stream flow rate;
 - iv. Hard Pipe Feed Tank Effluent Stream Flow rate;
 - v. Daily concentration of Methanol in the hard pipe feed tank;
 - vi. Oven dried tons of pulp produced per day;

If any monitoring parameter demonstrates collection less than 7.2 pounds per oven dried pulp (based on a 15-day rolling average) or if the monitoring procedures are not followed, the Permittee shall be deemed in noncompliance with 2D .1111.

Monitoring for the pulping process condensates [40 CFR 63.453]

Biological Wastewater Treatment Facility:

- h. The Permittee shall install, calibrate, certify, operate, and maintain according to the manufacturer's specifications, a continuous monitoring system (CMS) on the Biological Wastewater Treatment Facility Aerated Stabilization Basin (ASB) (ID No. ES-16-AS-020). The CMS shall include a continuous recorder for the hard-pipe flow. The CMS shall be operated to ensure the following operational parameters are maintained. [40 CFR 63, Subpart 63.453]:

- i. The Total Organic Carbon (TOC) in lb/day to aerator horsepower (HP) in hp/day ratio (TOC/HP) shall be maintained above 24.6.

If any monitoring parameter values are exceeded, the Permittee shall conduct a performance test in accordance with the provisions of Part 63 Subpart S to evaluate compliance as allowed by Part 63 Subpart S. Additionally, the Permittee shall follow all applicable monitoring procedures under 40 CFR Part 63 Subpart S for the Biological Wastewater Treatment Facility. If the monitoring procedures are not followed, the Permittee shall be deemed in noncompliance with 2D .1111.

Monitoring for Enclosures and Closed Vent Systems [40 CFR 63.453]

- i. Each enclosure and closed vent system shall meet the monitoring requirements of 40 CFR 63.453. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the monitoring is not performed.

Recordkeeping/Reporting [40 CFR 63.454; 63.455]

- j. The results or the CMS monitoring, Enclosure System monitoring, and Closed-Vent System monitoring shall be maintained (in written or electronic format) per the requirements of 40 CFR 63.454 and 63.455. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these records are not maintained.
- k. When actions taken during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) are not consistent with the procedures specified in the facility's Startup Shutdown Malfunction

(SSM) Plan, the Permittee shall record the actions taken for that event for inclusion in the semiannual SSM report. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these records are not maintained.

- l. When actions taken by the Permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the facility's SSM plan, the Permittee shall keep records for that event that demonstrate that the procedures specified in the SSM plan were followed. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these records are not maintained.

Reporting [40 CFR 63.454; 63.455]

- m. Permittee shall submit a summary report of excess 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. All instances of deviations from the requirements of this permit must be clearly identified. When no exceedances of an operating parameter have occurred, such information shall be included in the report.
- n. The Permittee shall comply with the reporting requirements of 40 CFR 63, Subpart A as specified in Table 1 of 40 CFR 63.440.

B. 40 CFR 63, Subpart S Affected Sources Permitted per 40 CFR 63.94 Equivalency by Permit:

HVLC Sources Under the Equivalency by Permit			
Source ID	Source Description	Control Device ID	Control Description
G0314 Brown Stock Washing System:			
ES-03-PU-003 to ES-03-PU-006 ES-03-TK-027 to ES-03-TK-030 ES-03-TK-031	A-line 1 st Stage to 4 th Stage Brownstock Washers A-line 1 st Stage to 4 th Stage Filtrate Tanks A-line Foam Tower	NA	Limit the pulp throughput of A-Line brownstock washing system to 30,000 ODTP per consecutive 12-month period following April 16, 2007. No control is required for the A-Line brownstock washing system per the Equivalency by Permit option under 40 CFR §63.94.
ES-03-PU-011 to ES-03-PU-013 ES-03-PU-022 to ES-03-PU-024	B-line 1 st Stage to 3 rd Stage Brownstock Washers C-line 1 st Stage to 3 rd Stage Brownstock Washers	ES-11-CU-001	No. 1 Power Boiler via closed HVLC collection system.
ES-03-TK-032 to ES-03-TK-034 ES-03-TK-035 ES-03-TK-038 to ES-03-TK-040 ES-03-TK-041	B-line 1 st Stage to 3 rd Stage Filtrate Tanks B-line Foam Tower C-line 1 st Stage to 3 rd Stage Filtrate Tanks C-line Foam Tower	NA	No control is required for the B- and C-Line Filtrate Tanks and Foam Towers per the Equivalency by Permit option under 40 CFR §63.94.

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Hazardous Air Pollutants	Route B- and C-Lines Brownstock Washer Drum vents (ES-03-PU-011 to ES-03-PU-013, ES-03-PU-022 to ES-03-PU-024) to the No. 1 Power Boiler (ES-11-CU-001) Shut down the Black Liquor Oxidation System (ES-08-PU-022, ES-08-TK-023); No. 6 Recovery Boiler (ES-08-PU-004); and No. 6 Dissolving Tank (ES-08-PU-005) Limit the pulp throughput of A-Line brownstock washing system (ES-03-PU-003 to ES-03-PU-006, ES-03-TK-027 to ES-03-TK-030, ES-03-TK-031) to 30,000 ODTP per consecutive 12-month period following April 16, 2007. Limit the pulp throughput of A-, B-, and C-Line brownstock washing systems to 427,050 ODTP per consecutive 12-month period following April 16, 2007.	15 A NCAC 2D .1111 (40 CFR 63 Subpart S) and Equivalency by Permit, 40 CFR 63.94

1. 15A NCAC 2D .1111: MACT 40 CFR 63 SUBPART S AND 40 CFR 63.94, EQUIVALENCY BY PERMIT

- a. Unless otherwise indicated below, the Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR Part 63 Subpart S, including Subpart A "General Provisions" as defined per 63.440(g) and indicated per Table 1 of Subpart S. These emission standards shall apply at all times except as specified in 40 CFR Part 63.443(e) and 63.446(g). Terms used throughout this section are defined in the Clean Air Act as amended in 1990 and in 40 CFR 63.2 and 63.441. Units and abbreviations are defined in 40 CFR 63.3 [15A NCAC 2D .1111]. The authority for the alternate control requirements for Equivalency by Permit (EBP) is given in 40 CFR parts 63.91 63.94, and 63.99 as promulgated in "Approval of Section 112(l) Authority for Hazardous Air Pollutants; Equivalency by Permit Provisions; National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry; State of North Carolina", Federal Register, Vol. 69, No. 70/Monday, April 12, 2004, pp. 19106-19109. Section 63.99 "Delegated Federal Authorities" of Subpart E "Approval of State Programs and Delegation of Federal Authorities" was also amended at FR Vol. 69, No. 70/Monday, April 12, 2004, p. 19110 to add 63.99(a)(33)(ii) North Carolina.

Emission Limitations [15A NCAC 2D .1111 and 40 CFR 63.94, Equivalency by Permit]

Standards for the HVLC pulping systems at Kraft processes [40 CFR 63.94, 63.443(a) and 40 CFR 63.94, Equivalency by Permit].

- b. No later than April 16, 2007, the Permittee shall meet the following control requirements for the total HAP emissions from the HVLC system [40 CFR 63, Subpart 63.443 and 40 CFR 63.94, Equivalency by Permit]
- i. The B- and C-Lines Washer Drum vents (ES-03-PU-011 to ES-03-PU-013, ES-03-PU-022 to ES-03-PU-024) shall be enclosed and vented into a closed vent system meeting the requirements of 40 CFR 63.450 and routed to the No. 1 Power Boiler by introducing the HAP emission stream with the combustion air/primary fuel/into the flame zone.
 - ii. No control shall be required for the emissions from the A-line brownstock washers, A-line filtrate tanks, A-line foam tank, or B-line and C-line filtrate tanks and foam towers.
 - iii. Use only non-process, reclaimed hot water (non-contact cooling water) or fresh water on the first shower stage of the A-, B-, and C-Line Brownstock Washers.
 - iv. The Black Liquor Oxidation System (ES-08-PU-022,ES-08-TK-023); No. 6 Recovery Boiler (ES-08-PU-004); and No. 6 Dissolving Tank (ES-08-PU-005) shall be removed from service.
 - v. Limit the pulp throughput of A-Line brownstock washing system to 30,000 ODTP per consecutive 12-month period.
 - vi. Limit the pulp throughput of A-, B-, and C-Line brownstock washing systems to 427,050 ODTP per consecutive 12-month period.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the requirements set forth in Section 2.2.B.1.b i-vi are not met.

- c. Periods of excess emissions reported under Sec. 63.455 shall not be a violation of Sec. 63.443 (c) and (d) provided that: [40 CFR 63.455 and 40 CFR 63.94, Equivalency by Permit]
- i. the time of excess emissions (excluding periods of startup, shutdown, or malfunction) divided by the total process operating time in any successive 12 calendar month reporting period after April 16, 2007 does not exceed four percent for control devices used to reduce the total HAP emissions from the HVLC system; and
 - ii. the time of excess emissions (excluding periods of startup, shutdown, or malfunction) divided by the total process operating time in any successive 12 calendar month reporting period after April 16, 2007 does not exceed four percent for control devices used to reduce the total HAP emissions from both the LVHC and HVLC systems.

When excess emissions exceed the level set forth in Section 2.2.B.1.c above, the facility shall be deemed in non-compliance with 15A NCAC 2D .1111 via 40 CFR 63.94.

- d. The Permittee must operate and maintain the emission source(s) in accordance with the procedures specified in the facility's start-up, shut-down, and malfunction (SSM) plan. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall operate and maintain the emission source(s), including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan.

- e. **Testing** [15A NCAC 2D .2601]

If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3.

- i. If emissions testing to demonstrate continued parity is required, testing of the methanol emissions from the A - Line washers, A – Line BSW No. 1 Filtrate tank, A – Line BSW Foam Tank, B- and C-Line foam tower vents shall be performed. If the combined methanol emissions from the A - Line washers, A – Line BSW No. 1 Filtrate tank, A – Line BSW Foam Tank, and B- and C-Line foam tower vents based on the previous 12 months of pulp production are greater than 34.2 tons, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 via 40 CFR 63.94.

Monitoring for the HVLC pulping systems Control Device [40 CFR 63.94, 63.453]

- f. No control device parameter monitoring is required for HVLC emission sources routed to the No. 1 Power Boiler. [40 CFR 60, Subpart 63.453]

Monitoring for Enclosures and Closed Vent Systems [40 CFR 63.94, 63.453]

- g. Each enclosure and closed vent system shall meet the monitoring requirements of 40 CFR 63.453. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the monitoring is not performed.

Recordkeeping/Reporting [40 CFR 63.94, 63.454; 63.455]

- h. The results of the Enclosure System monitoring and Closed-Vent System monitoring shall be maintained (in written or electronic format) per the requirements of 40 CFR 63.454 and 63.455. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these records are not maintained.
- i. When actions taken during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) are not consistent with the procedures specified in the facility's Startup Shutdown Malfunction (SSM) Plan, the Permittee shall record the actions taken for that event for inclusion in the semiannual SSM report. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these records are not maintained.
- j. When actions taken by the Permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the facility's SSM plan, the Permittee shall keep records for that event that demonstrate that the procedures specified in the SSM plan were followed. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these records are not maintained.
- k. The Permittee shall keep and maintain monthly records in a logbook (written or electronic) of the pulp throughput on A-Line and the total pulp throughput on A-, B-, and C-Lines.

Reporting [40 CFR 63.94, 63.454; 63.455]

1. Beginning on July 30, 2007, the Permittee shall submit semiannual summary reports of excess emissions under the equivalency by permit approach. Each semiannual report must be 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 must include the total time of excess emissions (excluding periods of startup, shutdown, or malfunction) for each 12-month period ending on each month during the semi-annual reporting period divided by the total process operating time for each 12-month period ending on each month during the semi-annual reporting period using rolling 12-month totals. The time of excess emissions calculation shall consider only the excess emission periods and the operating time since April 16, 2007. All instances of deviations from the requirements of this permit must be clearly identified. When no exceedances have occurred, such information shall be included in the report. Additionally, each semi-annual report shall specify the pulp throughput on A-Line and the total pulp throughput on A-, B-, and C-Lines for each of the 17 previous calendar months (or for the number of months since April 16, 2007, if less than 17) and the rolling 12-month pulp throughputs on A-Line and the combination of A-, B-, and C-Lines (for 12-month periods following April 16, 2007).
- m. The Permittee shall comply with the reporting requirements of 40 CFR 63, Subpart A as specified in Table 1 of 40 CFR 63.440.
- n. As required in 63.455(b), the Permittee shall submit, with the initial notification report and update every two years thereafter, a non-binding control strategy report containing, at a minimum, the information specified in 63.455(b)(1)-(3) in addition to the information required in 63.9(b)(2) of 40 CFR 63 Subpart A.

C. 40 CFR 63, Subpart MM Affected Sources:

Source ID No.	Source Description	Control ID No	Control Description
ES-08-PU-012	No. 7 Recovery Furnace	08-CD-012-001	single stage, cold-side dry bottom electrostatic precipitator (140,000 square feet of plate area)
ES-08-PU-013	No. 7 Smelt Dissolving Tank	08-CD-013-001	orifice-type wet scrubber
ES-09-PU-004	Lime Kiln	09-CD-004-001	variable throat venturi-type wet scrubber

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Hazardous Air Pollutants	<p><u>Lime Kiln</u></p> <ul style="list-style-type: none"> • PM emissions shall be no greater than 0.25 gr/dscf, corrected to 10% oxygen. • Scrubber liquid flow shall be no less than 650 gpm (3-hour average). • Scrubber pressure drop shall be no less than 20 in H2O (3-hour average). <p><u>No. 7 Recovery Furnace</u></p> <ul style="list-style-type: none"> • PM emissions shall be no greater than 0.021 gr/dscf corrected to 8% oxygen. • Opacity shall not be greater than 35 percent for more than 6 percent of the operating time within any quarterly period. <p><u>No. 7 Smelt Dissolving Tank</u></p> <ul style="list-style-type: none"> • PM emissions shall be no greater than 0.094 gr/dscf Scrubber liquid flow shall be no less than 17 gpm (3-hour average). • Scrubber differential pressure shall be no less than 8.2 in. H2O (3-hour average). <p><u>Overall Chemical Recovery System PM Limit</u> Total PM emissions from the Lime Kiln, No. 7 Recovery Furnace, and No. 7 Smelt Dissolving Tank shall be no greater than 1.379 lb/TBLS.</p>	15 A NCAC 2D .1111 (40 CFR 63 Subpart MM)

1. 15A NCAC 2D .1111: MACT 40 CFR 63 SUBPART MM

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR Part 63 Subpart MM, including Subpart A "General Provisions" as defined per 63.440(g) and indicated per Table 1 of Subpart MM. Terms used throughout this section are defined in the Clean Air Act as amended in 1990 and in 40 CFR 63.2 and 63.861. Units and abbreviations are defined in 40 CFR 63.3. The Permittee must demonstrate compliance with Subpart MM by March 13, 2005. [15A NCAC 2D .1111]

Emission Limitations [15A NCAC 2D .1111]

- b. Emissions of PM from the Lime Kiln, No. 7 Recovery Furnace, and No. 7 Smelt Dissolving Tank shall not exceed the limits presented in the table above. [63.865(a)]
- c. The chemical recovery system emission limits must be re-established if either (1) the air pollution control system for the lime kiln, No. 7 Recovery Furnace, or No. 7 Smelt Dissolving Tank is modified (as defined in 63.861) or replaced, or (2) the lime kiln, No. 7 Recovery Furnace, or No. 7 Smelt Dissolving Tank is shut down for more than 60 consecutive days. [63.862(a)(1)(ii)(D)]

Testing [15A NCAC 2D .1111]

- d. If emissions testing is required to re-establish the chemical recovery system emission limits, emissions testing shall be performed according to the procedures in 63.7, 63.865, and General Condition JJ. If the results of the testing indicate that the chemical recovery system emission rate is greater than the emission limits presented in the table above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111. [63.865]

Monitoring [15A NCAC 2D .1111]

- e. The Permittee must install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) at the outlet of No. 7 Recovery Furnace that can be used to determine opacity at least once every successive 10-second period and calculate and record each successive 6-minute average opacity using the procedures in 63.6(h) and 63.8. The COMS data must be reduced as specified in 63.8(g)(2). If these monitoring procedures are not followed, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111. [63.864(d)(10)]
- f. The Permittee must install, calibrate, maintain, and operate a continuous monitoring system that can be used to determine and record the pressure drop and the scrubbing liquid flow rate on the Lime Kiln Scrubber and the No. 7 Smelt Dissolving Tank scrubber. Pressure drop and scrubbing liquid flow rate for the Lime Kiln Scrubber and the No. 7 Smelt Dissolving Tank scrubber must be monitored at least once every successive 15-minute period using the procedures in 63.8(c), as well as the following procedures [63.864(e)(10) and (13)]:
- i. The monitoring device used for the continuous measurement of the pressure drop of the gas stream across the scrubber must be certified by the manufacturer to be accurate to within a gauge pressure of ± 500 pascals (± 2 inches of water gauge pressure); and
 - ii. The monitoring device used for continuous measurement of the scrubbing liquid flow rate must be certified by the manufacturer to be accurate within ± 5 percent of the design scrubbing liquid flow rate.
- If these monitoring procedures are not followed, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.
- g. The Permittee may base operating ranges on values recorded during the initial performance tests or conduct additional performance tests for the specific purpose of establishing operating ranges, provided that test data used to establish the operating ranges are or have been obtained using the test methods required in Subpart MM. The Permittee must certify that all control devices and processes have not been modified subsequent to the testing upon which the data used to establish the operating parameter ranges were obtained. The Permittee may establish expanded or replacement operating ranges during subsequent performance tests using the test methods in 63.865. The Permittee must continuously monitor each parameter and determine the arithmetic average value of each parameter during each performance test. Multiple performance tests may be conducted to establish a range of parameter values. [63.864(j)]
- h. The Permittee is required to implement corrective action, as specified in the startup, shutdown, and malfunction plan prepared under 63.866(a), if the following monitoring exceedances occur [63.864(k)(1)]:
- i. For No. 7 Recovery Furnace, when the average of ten consecutive 6-minute averages results in a measurement greater than 20 percent opacity;
 - ii. For the Lime Kiln or No. 7 Smelt Dissolving Tank, when any 3-hour average wet scrubber parameter value is outside the range of values established during performance testing as indicated in the table above.

- i. The Permittee is in violation of 63.862 if the following monitoring exceedances occur [63.864(k)(2)]:
 - i. For No. 7 Recovery Furnace, when opacity is greater than 35 percent for 6 percent or more of the operating time within any quarterly period;
 - ii. For the Lime Kiln or No. 7 Smelt Dissolving Tank, when six or more 3-hour average parameter values within any 6-month reporting period are outside the range of values established during performance testing as indicated in the table above.
- j. For purposes of determining the number of non-opacity monitoring exceedances, no more than one exceedance will be attributed in any given 24-hour period. [63.864(k)(3)]

Recordkeeping [15A NCAC 2D .1111]

- k. The Permittee must develop and implement a written plan as described in 63.6(e)(3) that contains specific procedures to be followed for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and control systems used to comply with Subpart MM. In addition to the information required in 63.6(e), the plan must include the requirements given in 63.866(a)(1) and (2). [63.866(a)]
- l. The Permittee must maintain records of any occurrence when corrective action is required under condition 2.2-C.1(j), and when a violation is noted under condition 2.2-C.1(k). [63.866(b)]
- m. In addition to the general records required by 63.10(b)(2), the Permittee must maintain records of the following information [63.864 (c)]:
 - i. Records of black liquor solids firing rates in units of ton/d for No. 7 Recovery Furnace ;
 - ii. Records of CaO production rates in units of ton/d for the Lime Kiln;
 - iii. Records of parameter monitoring data required under condition 2.2-C.1(g) through (l), including any period when the operating parameter levels were inconsistent with the levels established during the initial performance test or subsequent testing, with a brief explanation of the cause of the deviation, the time the deviation occurred, the time corrective action was initiated and completed, and the corrective action taken;
 - iv. Records and documentation of supporting calculations for the chemical recovery system emissions limit;
 - v. Records of monitoring parameter ranges established under condition 2.2-C.1(i).

Reporting [15A NCAC 2D .1111]

- n. After the Director has approved the emissions limits for any process unit, the Permittee must notify the Director before any of the following actions are taken [63.867(b)]:
 - i. The air pollution control system for any process unit subject to Subpart MM is modified or replaced;
 - ii. The Lime Kiln, No. 7 Recovery Furnace, or No. 7 Smelt Dissolving Tank is shut down for more than 60 consecutive days;
 - iii. A continuous monitoring parameter or the value or range of values of a continuous monitoring parameter for any process unit subject to Subpart MM is changed; or
 - iv. The black liquor solids firing rate for No. 7 Recovery Furnace during any 24-hour averaging period is increased by more than 10 percent above the level measured during the most recent performance test.
- o. If the Permittee (1) modifies the air pollution control device for the Lime Kiln, No. 7 Recovery Furnace, or No. 7 Smelt Dissolving Tank or (2) shuts down the Lime Kiln, No. 7 Recovery Furnace, or No. 7 Smelt Dissolving Tank for more than 60 consecutive days, or (3) increases the black liquor solids firing rate for the No. 7 Recovery Furnace during any 24-hour averaging period by more than 10 percent above the level measured during the most recent performance test, the Permittee must recalculate the overall PM emissions limit for the Lime Kiln, No. 7 Recovery Furnace, and No. 7 Smelt Dissolving Tank and resubmit the documentation required in 63.865 to the Director. All modified PM emissions limits are subject to approval by the Director. [63.867(b)]
- p. The Permittee must report quarterly if measured parameters meet any of the conditions specified in condition 2.2-C.1(k). This report must contain the information specified in 40 CFR 63.10(c) as well as the number and duration of occurrences when the source met or exceeded the conditions in condition 2.2-C.1(j), and the number and duration of occurrences when the source met or exceeded the conditions in condition 2.2-C.1(k). All instances of deviations from the requirements of this permit must be clearly identified in the report. Reporting excess emissions below the violation thresholds of conditions 2.2-C.1(j) and (k) does not constitute a violation of the applicable standard. [63.867(c)]
 - i. When no exceedances of parameters have occurred, the Permittee must submit a semiannual report stating that no excess emissions occurred during the reporting period.
 - ii. The Permittee may combine excess emissions and/or summary reports for the facility for Subpart MM and Subpart S.

D. Facility Wide Emission Sources:**STATE-ONLY REQUIREMENT****1. 15A NCAC 2D .1100: TOXIC AIR POLLUTANT EMISSIONS**

- a. Pursuant to 15A NCAC 2D .1100 and in accordance with the modeling demonstrating compliance with facility wide air toxic emissions, submitted with application No. 4200007.11B and approved by the NC Division of Air Quality Analysis Branch on December 1, 2011, the following permit limits shall not be exceeded:

EMISSION SOURCE(S)	TOXIC AIR POLLUTANT(S)	EMISSION LIMIT(S)
Log Chipper (ES-01-PU-014) or Bark Grinder (ES-01-PU-015)	Acrolein	3.59E-04 pounds per hour
	Benzene	1.81E+01 pounds per year
	Formaldehyde	9.79E-03 pounds per hour
A-Line Brownstock Washer (ES-03-PU-003 to ES-03-PU-006)	Acrolein	3.48E-01 pounds per hour
	Benzene	7.34E+01 pounds per year
	Cresol	1.09E+02 pounds per hour
	Formaldehyde	9.87E-02 pounds per hour
	Hydrogen Sulfide	2.16E+02 pounds per day
	Methyl Mercaptan	6.98E-01 pounds per hour
Combined Screen Rejects Tank (ES-03-TK-SRT)	Benzene	8.97E+00 pounds per year
	Formaldehyde	4.77E-01 pounds per hour
A Line Foam Tower (ES-03-TK-031)	Hydrogen Sulfide	1.35E+01 pounds per day
B/C Foam Tank (ES-03-TK)	Hydrogen Sulfide	3.18E+00 pounds per day
	Methyl Mercaptan	3.78E-02 pounds per hour
#7 Recovery Furnace (ES-08-PU-012)	Arsenic	1.36E+00 pounds per year
	Benzene	1.13E+03 pounds per year
	Beryllium	3.45E+00 pounds per year
	Cadmium	7.52E-05 pounds per year
	Chlorine 24-Hour	1.97E+03 pounds per day
	Chlorine 1-Hour	9.03E+02 pounds per hour
	Soluble Chromate Compounds	2.79E+00 pounds per day
	Fluorides 24-Hour	1.47E+03 pounds per day
	Fluorides 1-Hour	3.42E+02 pounds per hour
	Formaldehyde	2.51E+01 pounds per hour
	Hydrogen Chloride	4.44E+02 pounds per hour
	Hydrogen Fluoride 24-Hour	2.75E+03 pounds per hour
	Hydrogen Fluoride 1-Hour	3.42E+02 pounds per hour
Hydrogen Sulfide	1.32E+02 pounds per day	

EMISSION SOURCE(S)	TOXIC AIR POLLUTANT(S)	EMISSION LIMIT(S)
	Manganese	2.52E+02 pounds per day
	Mercury	3.85E+01 pounds per day
	Nickel	1.00E+03 pounds per day
	Sulfuric Acid 24-Hour	2.86E+03 pounds per day
	Sulfuric Acid 1-Hour	2.86E+02 pounds per hour
#7 Smelt Dissolver (ES-08-PU-013)	Ammonia	2.60E+02 pounds per hour
	Arsenic	7.12E-01 pounds per year
	Benzene	1.10E+01 pounds per year
	Beryllium	1.01E+01 pounds per year
	Cadmium	2.92E+02 pounds per year
	Soluble cromate compounds	1.37E+00 pounds per day
	Formaldehyde	8.53E-01 pounds per hour
	Hydrogen Sulfide	9.94E+01 pounds per day
	Manganese	6.61E+01 pounds per day
	Mercury	1.77E-01 pounds per day
	Methyl Mercaptan	2.44E-01 pounds per hour
	Nickel	3.95E+00 pounds per day
Lime Kiln (ES-09-PU-004)	Arsenic	3.39E-01 pounds per year
	Benzene	1.86E+02 pounds per year
	Beryllium	1.48E+02 pounds per year
	Cadmium	2.45E+02 pounds per year
	Chlorine 24-Hour	3.60E+02 pounds per day
	Chlorine 1-Hour	1.65E+01 pounds per hour
	Soluble cromate compounds	7.46E+00 pounds per day
	Hydrogen Chloride	4.34E+01 pounds per hour
	Hydrogen Sulfide	5.76E+01 pounds per day
	Manganese	3.75E+02 pounds per day
	Mercury	6.41E-01 pounds per day
	Nickel	9.04E+00 pounds per day
	Phenol	5.92E-02 pounds per hour
Lime Kiln Precoat Filter (ES-09-PU-010)	Acrolein	7.95E-03 pounds per hour
	Benzene	2.97E+00 pounds per year
	Formaldehyde	7.11E-02 pounds per hour

EMISSION SOURCE(S)	TOXIC AIR POLLUTANT(S)	EMISSION LIMIT(S)
Lime Kiln Vacuum Pump (ES-09-PU-016)	Benzene	9.41E+00 pounds per year
Lime Kiln Pony Motor (ES-09-PU-017)	Acrolein	1.13E-04 pounds per hour
	Benzene	1.08E-01 pounds per year
	Formaldehyde	3.91E-03 pounds per hour
Green Liquor Clarifier (ES-10-PU-001 and ES-10-PU-002)	Benzene	7.01E+00 pounds per year
	Methyl Mercaptan	1.53E-02 pounds per hour
Primary Causticizer (ES-10-PU-023)	Ammonia	5.85E+01 pounds per hour
Primary Clarifier (ES-10-PU-WLC)	Cresol	8.65E-02 pounds per hour
	Formaldehyde	1.42E-01 pounds per hour
	Phenol	8.52E-01 pounds per hour
Combined Emissions From: Power Boiler (ES-11-CU-001) -and- No. 1 to No. 4 Temporary Boilers (ES-11-CU-044 to 047)	Acrolein	3.13E-01 pounds per hour
	Arsenic	9.46E+01 pounds per year
	Benzene	9.21E+02 pounds per year
	Beryllium	9.72E+02 pounds per year
	Cadmium	3.26E+02 pounds per year
	Chlorine 24-Hour	2.49E+03 pounds per day
	Chlorine 1-Hour	1.14E+03 pounds per hour
	Fluorides 24-Hour	6.92E+02 pounds per day
	Fluorides 1-Hour	1.61E+02 pounds per hour
	Formaldehyde	3.05E+00 pounds per hour
	Hydrogen Chloride	3.76E+02 pounds per hour
	Hydrogen Fluoride 24-Hour	1.30E+03 pounds per hour
	Hydrogen Fluoride 1-Hour	1.61E+02 pounds per hour
	Manganese	1.03E+03 pounds per day
	Mercury	3.85E+01 pounds per day
	Methyl Mercaptan	8.04E-03 pounds per hour
	Nickel	2.57E+02 pounds per day
	Phenol	4.82E-01 pounds per hour
	Soluble cromate compounds	2.28E+01 pounds per day
Sulfuric Acid 24-Hour	6.05E+02 pounds per day	
Sulfuric Acid 1-Hour	6.03E+01 pounds per hour	

EMISSION SOURCE(S)	TOXIC AIR POLLUTANT(S)	EMISSION LIMIT(S)
Combined Emissions From: No. 2 Package Boiler (ES-11-CU-033) No. 3 Package Boiler (ES-11-CU-034); -and- No. 4 Package Boiler (ES-11-CU-035)	Arsenic	3.14E+01 pounds per year
	Benzene	1.89+01 pounds per year
	Beryllium	1.07E+03 pounds per year
	Cadmium	2.72E+02 pounds per year
	Chlorine 24-Hour	3.60E+02 pounds per day
	Chlorine 1-Hour	1.65E+01 pounds per hour
	Fluorides 24-Hour	1.31E+03 pounds per day
	Fluorides 1-Hour	3.06E+02 pounds per hour
	Formaldehyde	2.35E+00 pounds per hour
	Hydrogen Chloride	9.62E+02 pounds per hour
	Hydrogen Fluoride 24-Hour	2.46E+03 pounds per hour
	Hydrogen Fluoride 1-Hour	3.06E+02 pounds per hour
	Manganese	8.61E+01 pounds per day
	Mercury	1.52E+01 pounds per day
	Nickel	3.71E+02 pounds per day
No.3 and 4 Paper Machine (ES-12-PU-002 and ES-12-PU-003)	Sulfuric Acid 24-Hour	3.89E+02 pounds per day
	Sulfuric Acid 1-Hour	3.88E+01 pounds per hour
	Acrolein	2.20E-00 pounds per hour
	Benzene	1.40E+03 pounds per year
HD Storage (ES-12-TK-001 to ES-12-TK-003)	Formaldehyde	4.06E+00 pounds per hour
	Methyl Mercaptan	1.34+00 pounds per hour
	Acrolein	1.97E-02 pounds per hour
	Benzene	1.73E+00 pounds per year
Aerated Stabilization Basin (ES-16-AS-020)	Methyl Mercaptan	3.35E-02 pounds per hour
	Phenol	5.07E+00 pounds per hour
	Cresol	1.72E-02 pounds per hour
Tall Oil Plant (ES-21)	Formaldehyde	2.13E-01 pounds per hour
	Phenol	1.70E-01 pounds per hour
	Acrolein	3.67E-01 pounds per hour
	Benzene	4.68+01 pounds per year
	Hydrogen Sulfide	4.30E+02 pounds per day
	Methyl Mercaptan	1.37E+00 pounds per hour
	Phenol	7.02E+01 pounds per hour

EMISSION SOURCE(S)	TOXIC AIR POLLUTANT(S)	EMISSION LIMIT(S)
Recovery/Utility Emergency Generator (ES-EG-001)	Acrolein	3.53E-04 pounds per hour
	Benzene	3.38E-01 pounds per year
	Formaldehyde	1.23E-02 pounds per hour
RB7 Emergency Lighting Generator (ES-EG-002)	Acrolein	5.65E-05 pounds per hour
	Benzene	5.40E-02 pounds per year
	Formaldehyde	1.96E-03 pounds per hour
PB1 Emergency Lighting Generator (ES-EG-003)	Acrolein	5.65E-05 pounds per hour
	Benzene	5.40E-02 pounds per year
	Formaldehyde	1.96E-03 pounds per hour
Diesel Fire Water Pump Engine (ES-FP-001)	Acrolein	1.31E-03 pounds per hour
	Benzene	1.26E+00 pounds per year
	Formaldehyde	4.56E-02 pounds per hour

- b. The Permittee may combust recycled No. 4 fuel oil generated on site or supplied by a DAQ-approved vendor in the No. 1 Power Boiler, the No. 7 Recovery Boiler, and the Lime Kiln (ID Nos. ES-11-CU-001, ES-08-PU-12, and ES-09-PU-004) provided that the recycled oil is equivalent to unadulterated fossil fuel. The Permittee shall ensure the recycled No. 4 fuel oil meets the following criteria for unadulterated fuel prior to burning the fuel:

Constituent/Property	Maximum Allowable Level
Arsenic	1 ppm
Cadmium	2 ppm
Chromium	5 ppm
Lead	100 ppm
Total Halogens	1000 ppm
Flash Point	130 degrees F
Sulfur	2.0% by weight
Ash	1.0%

- c. The operation for the portable Log Chipper and Bark Grinder (ID No. ES-01-PU-014 and ES-01-PU-015) combined shall not exceed a total of 8,760 hours during any consecutive 12 month period.

Testing [15A NCAC 2D .0605]

- d. The DAQ reserves the right to require additional testing and/or monitoring of the recycled fuel oil on an annual basis or without notice. If the fuel analysis results exceed one or more of the limits given in Section 2.2.D.1.b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1100.

Monitoring/Recordkeeping [15A NCAC 2D .0605]

- e. The Permittee is responsible for ensuring that the recycled No. 4 fuel oil, as generated and/or as received at the site, meet(s) the approved criteria for unadulterated fuel. The Permittee is held responsible for any discrepancies discovered by DAQ as a result of any sampling and analysis of the fuel oil.
- f. The Permittee shall maintain monthly records of the operational hours for the Log Chipper and the Bark Grinder (ID Nos. ES-01-PU-014 and ES-01-PU-015) during each month these portable units are onsite.
- g. The Permittee shall maintain at the facility for a minimum of three years, and shall make available to representatives of the DAQ upon request, accurate records of the following:
- i. The actual amount recycled No. 4 fuel oil delivered to, and combusted at the facility on an annual basis.

- ii. Each load of used recycled oil received shall include the following:
 - A. A delivery manifest document clearly showing the shipment content and amount, its place and date of loading, and place and date of destination;
 - B. A batch specific analytical report that contains an analysis for all constituents/properties listed above. Analytical results of the samples representative of the recycled oil shipment from the vendor shall be no more than one year old when received;
 - C. Batch signature information consisting of the following: a batch number, tank identification with batch volume of recycled oil, date and time the batch completed treatment, and volume(s) delivered; and
 - D. A certification indicating that the recycled fuel oil does not contain detectable PCBs (< 2 ppm).

Reporting [15A NCAC 2D .0605]

- h. Within 30 days after each calendar year, regardless of the amount received or combusted, the Permittee shall submit in writing to the Regional Supervisor, DAQ, the following:
 - i. A summary of the results of the analytical testing for the previous 12 months; and
 - ii. The total gallons of recycled fuel oil(s) from each approved vendor and combusted at the facility for the previous 12 months.

STATE-ONLY REQUIREMENT

2. TOXIC AIR POLLUTANT EMISSIONS LIMITATION AND REPORTING REQUIREMENTS

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

TPERs Limitations				
Pollutant (CAS Number)	Carcinogens (lb/yr)	Chronic Toxicants (lb/day)	Acute Systemic Toxicants (lb/hr)	Acute Irritants (lb/hr)
Acetaldehyde (108-31-6)				
Benzo(a)pyrene (50-32-8)	2.2			
1,3-Butadiene (106-99-0)	12			
Carbon disulfide (75-152-0)		3.9		
Carbon tetrachloride (56-23-5)	460			
Chlorobenzene (141-78-6)		46		
Chloroform (67-66-3)	290			
n-Hexane (110-54-3)		23		
Methyl chloroform (71-55-6)		250		64
Methylene chloride (75-09-2)	1600		0.39	
Methyl ethyl ketone (78-93-3)		78		22.4
Methyl isobutyl ketone (108-10-1)		52		7.6
Styrene (100-42-5)			2.7	
Toluene (108-88-3)		98		14.4

TPERs Limitations				
Pollutant (CAS Number)	Carcinogens (lb/yr)	Chronic Toxicants (lb/day)	Acute Systemic Toxicants (lb/hr)	Acute Irritants (lb/hr)
Xylene (1330-20-7)		57		16.4

SECTION 3 - GENERAL CONDITIONS (version 3.5; 08/15/11)

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

- A. **General Provisions** [NCGS 143-215 and 15A NCAC 2Q .0508(i)(16)]
1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 2D and 2Q.
 2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
 3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
 4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
 5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
 6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.
- B. **Permit Availability** [15A NCAC 2Q .0507(k) and .0508(i)(9)(B)]
The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environment and Natural Resources upon request.
- C. **Severability Clause** [15A NCAC 2Q .0508(i)(2)]
In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.
- D. **Submissions** [15A NCAC 2Q .0507(e) and 2Q .0508(i)(16)]
Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641
- All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).
- E. **Duty to Comply** [15A NCAC 2Q .0508(i)(2)]
The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY

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

G. **Permit Modifications**

1. Administrative Permit Amendments [15A NCAC 2Q .0514]
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 2Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 2Q .0524 and 2Q .0505]
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 2Q.0524 and 2Q .0505.
3. Minor Permit Modifications [15A NCAC 2Q .0515]
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 2Q .0515.
4. Significant Permit Modifications [15A NCAC 2Q .0516]
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 2Q .0516.
5. Reopening for Cause [15A NCAC 2Q .0517]
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 2Q .0517.

H. **Changes Not Requiring Permit Modifications**

1. Reporting Requirements
Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
 - a. changes in the information submitted in the application;
 - b. changes that modify equipment or processes; or
 - c. changes in the quantity or quality of materials processed.

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

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

To the extent that emissions trading is allowed under 15A NCAC 2D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 2Q .0523(c).

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

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

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

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

Excess Emissions

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

Permit Deviations

3. Pursuant to 15A NCAC 2Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
 - a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 2D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

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

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

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

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

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

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
 - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
 - b. the permitted facility was at the time being properly operated;
 - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
 - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. **Permit Renewal** [15A NCAC 2Q .0508(e) and 2Q .0513(b)]

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

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 2Q .0508(i)(4)]

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

M. **Duty to Provide Information (submittal of information)** [15A NCAC 2Q .0508(i)(9)]

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

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

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

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

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

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

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

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

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

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

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

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

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

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

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

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

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

U. **Property Rights** [15A NCAC 2Q .0508(i)(8)]

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

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

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
 - a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
 - b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
 - c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 - d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.
2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 2Q .0508(i)(10)]

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

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

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

Y. **Confidential Information** [15A NCAC 2Q .0107 and 2Q. 0508(i)(9)]

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

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

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

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

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

BB. **Financial Responsibility and Compliance History** [15A NCAC 2Q .0507(d)(4)]

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

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

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.

2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

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

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

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

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

FF. Title IV Allowances [15A NCAC 2Q .0508(i)(1)]

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

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

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

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

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

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

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

JJ. General Emissions Testing and Reporting Requirements [15A NCAC 2Q .0508(i)(16)]

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

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.
4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.

- a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
 - (1) Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
 - (2) Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
 - (3) Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
- b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 2D .2600 has precedence over all other tests.

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

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

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

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

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

As required by 15A NCAC 2D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 2D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

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

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

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

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

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

ATTACHMENT

List of Acronyms

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