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JOSH STEIN
Governor
D. REID WILSON
Secretary
MICHAEL ABRACZINSKAS
Director

NORTH CAROLINA
Environmental Quality

TBD

Mr. Kenneth Hale
Plant Manager
Electric Glass Fiber America, LLC
940 Washburn Switch Road
Shelby, NC 28150

Dear Mr. Hale:

SUBJECT: Air Quality Permit No. 01958T72
Facility ID: 2300153
Electric Glass Fiber America, LLC
Shelby
Cleveland County
Fee Class: Title V
PSD Status: Major

In accordance with your completed Air Quality application for the second step of a two-step significant modification, we are forwarding, herewith, Air Quality Permit No. 01958T72 authorizing the construction and operation of the emission source(s) and associated air pollution control device(s) specified herein Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been identified as such in the permit. Please note, the requirements for the annual compliance certification are contained in General Condition P in Section 4. 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 file a petition for contested case hearing in the North Carolina Office of Administrative Hearings. Information regarding the right, procedure, and time limit for permittees and other persons aggrieved to file such a petition is contained in the attached "Notice Regarding the Right to Contest A Division of Air Quality Permit Decision."

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

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

Cleveland County has triggered increment tracking under PSD for $PM_{2.5}$, PM_{10}, SO_2, and NOx. Any changes in increment for tracked pollutants were addressed in the 01958T69 permit revision (Part I Application No. 2300153.23B).

This Air Quality Permit shall be effective from TBD until March 31, 2029. This Air Quality Permit 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 Russell Braswell at 919-707-8731 or russell.braswell@deq.nc.gov.

Sincerely yours,

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

Enclosure

c: Brad Akers, EPA Region 4 (Permit and Review)
Laserfiche (2300153)

NOTICE REGARDING THE RIGHT TO CONTEST A DIVISION OF AIR QUALITY PERMIT DECISION

Right of the Permit Applicant or Permittee to File a Contested Case: Pursuant to NCGS 143-215.108(e), a permit applicant or permittee who is dissatisfied with the Division of Air Quality's decision on a permit application may commence a contested case by filing a petition under NCGS 150B-23 in the Office of Administrative Hearings within 30 days after the Division notifies the applicant or permittee of its decision. If the applicant or permittee does not file a petition within the required time, the Division's decision on the application is final and is not subject to review. The filing of a petition will stay the Division's decision until resolution of the contested case.

Right of Other Persons Aggrieved to File a Contested Case: Pursuant to NCGS 143-215.108(e1), a person other than an applicant or permittee who is a person aggrieved by the Division's decision on a permit application may commence a contested case by filing a petition under NCGS 150B-23 within 30 days after the Division provides notice of its decision on a permit application, as provided in NCGS 150B-23(f), or by posting the decision on a publicly available Web site. The filing of a petition under this subsection does not stay the Division's decision except as ordered by the administrative law judge under NCGS 150B-33(b).

General Filing Instructions: A petition for contested case hearing must be in the form of a written petition, conforming to NCGS 150B-23, and filed with the Office of Administrative Hearings, 1711 New Hope Church Road, Raleigh NC, 27609, along with a fee in an amount provided in NCGS 150B-23.2. A petition for contested case hearing form may be obtained upon request from the Office of Administrative Hearings or on its website at https://www.oah.nc.gov/hearings-division/filing/hearing-forms. Additional specific instructions for filing a petition are set forth at 26 NCAC Chapter 03.

Service Instructions: A party filing a contested case is required to serve a copy of the petition, by any means authorized under 26 NCAC 03 .0102, on the process agent for the Department of Environmental Quality:

Daniel S. Hirschman, General Counsel
North Carolina Department of Environmental Quality
1601 Mail Service Center
Raleigh, North Carolina 27699-1601

If the party filing the petition is a person aggrieved other than the permittee or permit applicant, the party **must also** serve the permittee in accordance with NCGS 150B-23(a).

* * *

Additional information is available at https://www.oah.nc.gov/hearings-division/hearing-process/filing-contested-case. Please contact the OAH at 984-236-1850 or oah.postmaster@oah.nc.gov with all questions regarding the filing fee and/or the details of the filing process.

Summary of Changes to Permit

The following changes were made to the existing Air Permit No. 01958T71:*

Page No.	Section	Description of Changes
Throughout	Throughout	• Updated dates and permit numbers.
6	1	• Removed footnote and application submittal requirement for ES382 because the Permittee has completed that requirement.
n/a	2.1 C.7 (former)	• Removed this condition because the Permittee has completed the testing requirement.
n/a	2.1 G.4, 5, 6, and 7 (former)	• Removed these specific conditions because the Permittee has completed the application submittal requirement. Requirements for ES382 have been combined into Specific Conditions 2.1 G.1, 2, and 3.
78	4	• Updated General Conditions to v8.0. Updates to the General Conditions are made to all Title V permits issued by DAQ as necessary and are not the result of any specific action of the Permittee.

* This list is not intended to be a detailed record of every change made to the permit but a summary of those changes.

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State of North Carolina
Department of Environmental Quality
Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.	Effective Date	Expiration Date
01958T72	01958T71	TBD	March 31, 2029

NOTE: Per General Condition K, a permit application for the renewal of this Title V permit shall be submitted no later than September 30, 2028.

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

Pursuant to Title 15A NCAC, Subchapter 02Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee:	**Electric Glass Fiber America, LLC**
Facility ID:	**2300153**
Primary SIC Code:	**3229**
NAICS Code:	**327212**
Facility Site Location:	**940 Washburn Switch Road**
City, County, State, Zip:	**Shelby, Cleveland County, NC 28150**
Mailing Address:	**940 Washburn Switch Road**
City, State, Zip:	**Shelby, NC 28150**
Application Number:	**2300153.24B**
Complete Application Date:	**August 27, 2024**
Division of Air Quality:	**Mooresville Regional Office**
Regional Office Address:	**610 East Center Avenue, Suite 301**
	Mooresville, NC 28115

Permit issued this the TBD.

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

Table of Contents

List of Acronyms

AOS	Alternative Operating Scenario
BACT	Best Available Control Technology
BAE	Baseline Actual Emissions
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CEDRI	Compliance and Emissions Data Reporting Interface
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMS	Continuous Opacity Monitoring System
CSAPR	Cross-State Air Pollution Rule
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
GHGs	Greenhouse Gases
HAP	Hazardous Air Pollutant
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industry Classification System
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_X	Nitrogen Oxides
NSPS	New Source Performance Standard
NSR	New Source Review
OAH	Office of Administrative Hearings
PAE	Projected Actual Emissions
PAL	Plantwide Applicability Limitation
PM	Particulate Matter
$PM_{2.5}$	Particulate Matter with Nominal Aerodynamic Diameter of 2.5 Micrometers or Less
PM_{10}	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TAP	Toxic Air Pollutant
tpy	Tons Per Year
VOC	Volatile Organic Compound

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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 and appurtenances:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Double level fiberglass furnace No. 520, using only EFB technology, consisting of the following:			
520M **NSPS CC**	natural gas / propane / direct oxygen-fired melter (7,280 pounds glass per hour maximum allowable pull rate)	NA	NA
520R	natural gas / propane-fired refiner	NA	NA
520F-A 520F-B	two natural gas / propane-fired forehearths	NA	NA
Double level fiberglass furnace No. 524, using only EFB technology, consisting of the following:			
524M **NSPS CC**	natural gas / propane / direct oxygen-fired melter equipped with electric boost (1,950 kW capacity) (18,600 pounds glass per hour maximum allowable pull rate)	NA	NA
524R	natural gas / propane / direct oxygen-fired refiner	NA	NA
524F	natural gas / propane / direct oxygen-fired forehearth	NA	NA
Double level fiberglass furnace No. 525, using only EFB technology, consisting of the following:			
525M	natural gas / propane / direct oxygen-fired melter with electric boost (2 megawatts maximum capacity) (15,822 pounds glass per hour maximum allowable pull rate)	NA	NA
525R	natural gas / propane-fired refiner	NA	NA
525F	natural gas / propane-fired forehearth	NA	NA
Double level fiberglass furnace No. 526, using only EFB technology, consisting of the following:			
526M **NSPS CC**	natural gas / propane / direct oxygen fired melter with 2400 kW electric boost (20,000 pounds per hour maximum allowable glass pull rate)	NA	NA
526R	natural gas / propane-fired refiner	NA	NA
526F	natural gas / propane-fired forehearth	NA	NA
525FBSB#1 525FBSB#2	Two furnace batch storage bins serving furnace 525 (10.3 tons/hr nominal process rate each)	DC100, DC101	Two cartridge filters (1,080 square feet of filter area, each) (one filter per bin)
524FBSB#1 524FBSB#2	Two furnace batch storage bins serving furnace 524 (30 tons/hr nominal process rate each)	DC102, DC103	Two baghouses (10:1 gas-to-cloth ratio each) (one filter per bin)

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
520FBSB#1, 520FBSB#2	Two furnace batch storage bins serving furnace 520 (10 tons/hr nominal process rate each)	DC104, DC105	Two baghouses (10:1 gas-to-cloth ratio each) (one filter per bin)
526MBSB#1, 526MBSB#2	Two mixed batch storage bins serving furnace 526 (12.2 tons/hr nominal process rate each)	DC382, DC383	Two baghouses (5.3:1 gas-to-cloth ratio each) (one filter per bin)
EPDC129	One batch storage bin (13 tons/hr nominal process rate) serving furnace 526	DC129	Baghouse (172 square feet of filter area)
ESDC112(silo#1)	One raw material storage silo (34 tons/hr nominal process rate)	DC112(silo#1)	Bagfilter (61 square feet of filter area)
ESDC113(silo#2)	One raw material storage silo (34 tons/hr nominal process rate)	DC113(silo#2)	Bagfilter (61 square feet of filter area)
ESDC114(silo#3)	One raw material storage silo (34 tons/hr nominal process rate)	DC114(silo#3)	Bagfilter (61 square feet of filter area)
ESDC115(silo#4)	One raw material storage silo (34 tons/hr nominal process rate)	DC115(silo#4)	Bagfilter (61 square feet of filter area)
ESDC116(silo#5)	One raw material storage silo (34 tons/hr nominal process rate)	DC116(silo#5), DC117(silo#5)	Two bagfilters (10:1 gas-to-cloth ratio, each)
ESDC118(silo#6)	One raw material storage silo (34 tons/hr nominal process rate)	DC118(silo#6), DC131(silo#6)	Two bagfilters (10:1 gas-to-cloth ratio, each)
ESDC119(silo#7), **PSD BACT**	One batch storage silo (34 tons/hr nominal process rate)	DC119(silo#7)	Baghouse (56 square feet of filter area)
ESDC120(silo#8) **PSD BACT**	One batch storage silo (34 tons/hr nominal process rate)	DC120(silo#8)	Baghouse (56 square feet of filter area)
ESDC121(silo#9), **PSD BACT**	One batch storage silo (34 tons/hr nominal process rate)	DC121(silo#9), DC122(silo#9)	Two cartridge filters (150 square feet of filter area, each)
ESDC123(silo#10) **PSD BACT**	One batch storage silo (34 tons/hr nominal process rate)	DC152(silo#10), DC123(silo#10)	Two baghouses (56 square feet of filter area, each)
ESDC124(silo#11)	One raw material storage silo (34 tons/hr nominal process rate)	DC124(silo#11)	Bagfilter (126 square feet of filter area)
ESDC125(silo#12)	One raw material storage silo (34 tons/hr nominal process rate)	DC125(silo#12)	Bagfilter (126 square feet of filter area)
ESDC126(silo#13)	One raw material storage silo (34 tons/hr nominal process rate)	DC126(silo#13)	Bagfilter (126 square feet of filter area)
ESDC127(silo#14)	One raw material storage silo (34 tons/hr nominal process rate)	DC127(silo#14)	Cartridge filter (150 square feet of filter area)
ESDC153(silo#15)	One raw material storage silo (34 tons/hr nominal process rate)	DC153(silo#15)	Bagfilter (126 square feet of filter area)
ESDC154(silo#16)	One raw material storage silo (34 tons/hr nominal process rate)	DC154(silo#16)	Bagfilter (126 square feet of filter area)
ESDC132(silo#18)	One raw material storage silo (34 tons/hr nominal process rate)	DC132(silo#18), DC133(silo#18)	Two bagfilters (61 square feet of filter area, each)
ESDC134(silo#19)	One raw material storage silo (34 tons/hr nominal process rate)	DC134(silo#19), DC135(silo#19)	Two cartridge filters (150 square feet of filter area, each)

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ESWC367a	Remote Wet Cut Line No. 1 (5,000 pounds per hour dry nominal production rate) including a natural gas-fired dryer (3.5 million Btu per hour maximum heat input rate)	CDWC367	Venturi scrubber (80 gallons per minute minimum liquid injection rate)
ESWC368a	Remote Wet Cut Line No. 2 (5,000 pounds per hour dry nominal production rate) including a natural gas-fired dryer (3.5 million Btu per hour maximum heat input rate)	CDWC368	Venturi scrubber (80 gallons per minute minimum liquid injection rate)
ESWC369a	Remote Wet Cut Line No. 3 (5,000 pounds per hour dry nominal production rate) including a natural gas-fired dryer (3.5 million Btu per hour maximum heat input rate)	CDWC369	Venturi scrubber (80 gallons per minute minimum liquid injection rate)
ESWCL370	Remote Wet Cut Line No. 4 (4,500 pounds per hour dry nominal production rate) including a natural gas-fired dryer (3.5 million Btu per hour maximum heat input rate)	CDWC370	Venturi scrubber (80 gallons per minute minimum liquid injection rate)
ESWCL371	Remote Wet Cut Line No. 5 (4,500 pounds per hour dry nominal production rate) including a natural gas-fired dryer (3.5 million Btu per hour maximum heat input rate)	CDWC371	Venturi scrubber (80 gallons per minute minimum liquid injection rate)
ES378	One natural gas-fired in-line dryer supporting furnace 526 (2,400 dry pounds per hour nominal production rate, 2 million Btu per hour maximum heat input rate)	EC378	One venturi scrubber (45 gallons per minute liquid injection rate)
ES379	One natural gas-fired in-line dryer supporting furnace 526 (2,400 dry pounds per hour nominal production rate, 3 million Btu per hour maximum heat input rate)	EC379	One venturi scrubber (45 gallons per minute liquid injection rate)
ES380	One natural gas-fired in-line dryer supporting furnace 526 (2,400 dry pounds per hour nominal production rate, 3 million Btu per hour maximum heat input rate)	EC380	One venturi scrubber (45 gallons per minute liquid injection rate)
ES381	One natural gas-fired in-line dryer supporting furnace 526 (1,500 dry pounds per hour nominal production rate, 1.5 million Btu per hour maximum heat input rate)	EC381	One venturi scrubber (45 gallons per minute liquid injection rate)
ES382	Furnace 524 Direct Chop Line No. 1 (5,000 dry pounds per hour nominal production rate) including a natural gas-fired in-line dryer (3.5 million Btu per hour maximum heat input rate)	EC382	Venturi scrubber (80 gallons per minute minimum liquid injection rate)
ES97	One binder mix room ventilation (12,000 lb/hr nominal process rate)	97EC	One cartridge filter (3,048 square feet of filter area)

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ESCC96	One caustic bushing cleaning system (2,600 lb/hr nominal process rate)	CDWS96	One packed cross-flow scrubber (34 gallons per minute liquid injection rate)
ESB83A **MACT DDDDD**	One natural gas/No. 2 fuel oil fired boiler (25.1 million Btu per hour nominal heat input rate)	NA	NA
ESB83B **MACT DDDDD**	One natural gas/No. 2 fuel oil fired boiler (16.33 million Btu per hour nominal heat input rate)	NA	NA
ESB83C **MACT DDDDD**	Natural gas-fired boiler (0.84 million Btu per hour heat input rate)	NA	NA
ESVAP1 **MACT DDDDD**	Propane-fired propane vaporizer (4.2 million Btu per hour heat input rate)	NA	NA
ES-7, ES-17, ES-18 **MACT DDDDD**	Three natural gas-fired fiberglass drying ovens (3.4 million Btu per hour maximum heat input, each)	NA	NA
ES-6, ES-12, ES-19, ES-20, ES-21 **MACT DDDDD**	Five natural gas-fired fiberglass drying ovens (1.5 million Btu per hour maximum heat input, each)	NA	NA
ES-14a, ES-14b, ES-14c, ES-15a, ES-15b, ES-15c, **MACT DDDDD**	Six natural gas-fired fiberglass drying ovens (0.92 million Btu per hour maximum heat input, each)	NA	NA
ES-D1, ES-D2, ES-D3, and ES-D4	Four single lane dielectric fiberglass drying oven (1,800 pounds per hour throughput capacity, each)	NA	NA
Raw material batch house bins identified as follows:			
EPDC160	Blender A	DC160	Cartridge-type filter (137.5 square feet of filter area)
EPDC161	Blender B	DC161	Cartridge-type filter (137.5 square feet of filter area)
EPDC162	Silo 17	DC162	Cartridge-type filter (137.5 square feet of filter area)
EPDC163	Scale Bin 1	DC163	Cartridge-type filter (137.5 square feet of filter area)
EPDC164	Scale Bin 2	DC164	Cartridge-type filter (137.5 square feet of filter area)
EPDC165	Scale Bin 3	DC165	Cartridge-type filter (137.5 square feet of filter area)
EPDC166	Scale Bin 4A	DC166	Cartridge-type filter (137.5 square feet of filter area)
EPDC167	Scale Bin 4B	DC167	Cartridge-type filter (137.5 square feet of filter area)

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
EPDC168	Scale Bin 5	DC168	Cartridge-type filter (137.5 square feet of filter area)
EPDC169	Scale Bin 6	DC169	Cartridge-type filter (137.5 square feet of filter area)
EPDC170	Scale Bin 7	DC170	Cartridge-type filter (137.5 square feet of filter area)
EPDC171	Scale Bin 8	DC171	Cartridge-type filter (137.5 square feet of filter area)
EPDC172	Bag Breaker 1	DC172	Cartridge-type filter (88 square feet of filter area)
EPDC173	Bag Breaker 2	DC173	Cartridge-type filter (88 square feet of filter area)
EPDC174	Bag Breaker 3	DC174	Cartridge-type filter (88 square feet of filter area)
EPDC175	Silo 20	DC175	Cartridge-type filter (198 square feet of filter area)
EPDC176	Scale Bin 11	DC176	Cartridge-type filter (198 square feet of filter area)
EPDC177	Mixed Batch Storage Bin 1	DC177	Cartridge-type filter (269 square feet of filter area)
EPDC178	Mixed Batch Storage Bin 2	DC178	Cartridge-type filter (269 square feet of filter area)
EPDC179	Mixed Batch Storage Bin 3	DC179	Cartridge-type filter (269 square feet of filter area)
EPDC180	Mixed Batch Storage Bin 6	DC180	Cartridge-type filter (269 square feet of filter area)
EPDC181	Mixed Batch Storage Bin 7	DC181	Cartridge-type filter (269 square feet of filter area)
EPDC184	Raw Material Batch Bin MBSB5 (755 cubic feet storage capacity)	DC184	Cartridge filter (1,470 square feet of filter area)
EPDC185	Raw Material Batch Bin MBSB8 (755 cubic feet storage capacity)	DC185	Cartridge filter (1,470 square feet of filter area)
EPDC186	Raw Material Batch Bin MBSB9 (776 cubic feet storage capacity)	DC186	Cartridge filter (1,470 square feet of filter area)

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
EPDC187	Raw Material Batch Bin MBSB10 (776 cubic feet storage capacity)	DC187	Cartridge filter (1,470 square feet of filter area)
Vacuum Systems			
EPDC182	Batch House Central Vacuum System	DC182	Cartridge-type filter (1,860 square feet of filter area)
EPDC183	Batch House Scale Area Vacuum System	DC183	Cartridge-type filter (18,288 square feet of filter area)
Internal Combustion Engines			
ESDG85, ESDG86, ESDG88A, ESDG88B **MACT ZZZZ**	Four diesel-fired emergency generators (two 1200 hp each and two 1800 hp each)	NA	NA
ESDP366 **MACT ZZZZ**	Process Water (Return), Emergency Diesel fuel-fired Pump 524 (115 BHP)	NA	NA
ESDP89 **MACT ZZZZ**	Process Water (Supply) Emergency Diesel fuel-fired Pump 524 (325 BHP)	NA	NA
ESDP90 **MACT ZZZZ**	Process Water (Supply) Emergency Diesel fuel-fired Pump 525 (290 BHP)	NA	NA
ESDP91 **MACT ZZZZ**	Process Water (Return) Emergency Diesel fuel-fired Pump 525 (115 BHP)	NA	NA
ESDP92 **MACT ZZZZ**	Process Water GM Emergency Diesel fuel-fired Pump Loop 1&2 (Supply) (250 BHP)	NA	NA
ESDP93 **MACT ZZZZ** **NSPS IIII**	Process Water (Supply) Emergency Diesel fuel-fired Pump 526 (173 BHP)	NA	NA
ESDP94 **MACT ZZZZ**	Process Water (Return) Emergency Diesel fuel-fired Pump 526 (125 BHP)	NA	NA
ES-FP1 **MACT ZZZZ**	Emergency Diesel fuel-fired Fire Pump (250 BHP)	NA	NA
ES-CAEB524 **MACT ZZZZ**	Emergency Natural Gas-fired Blower 524 (150 BHP)	NA	NA
ES-CAEB525 **MACT ZZZZ**	Emergency Natural Gas-fired Blower 525 (150 BHP)	NA	NA
ES-CAEB526 **MACT ZZZZ**	Emergency Natural Gas-fired Blower 526 (150 BHP)	NA	NA

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

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

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

A. Double level fiberglass furnace No. 520, using only EFB technology, consisting of the following:
natural gas / propane / direct oxygen fired-melter (ID No. 520M)
natural gas / propane-fired refiner (ID No. 520R)
natural gas / propane-fired forehearth (ID No. 520F-A)
natural gas / propane-fired forehearth (ID No. 520F-B)

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter (from melter, refiner, and forehearth)	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons per hour, or $E = 55 \times P^{0.11} - 40$ for $P > 30$ tons per hour Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Sulfur Dioxide	2.3 pounds per million Btu heat input each	15A NCAC 02D .0516
Visible Emissions	20 percent opacity from melter, refiner and forehearths, each	15A NCAC 02D .0521
Fluorides	**Melter only (ID No. 520M)**, **State-enforceable only** 0.45 pounds per ton of glass pulled (annual basis) **See Section 2.2 C.1**	NCGS 143-215.108(c)
Particulate Matter (filterable only)	**Melter only (ID No. 520M)** 1.0 pounds per ton of glass produced	15A NCAC 02D .0524 (NSPS Subpart CC)
PM_{10} (from melter, refiner, and forehearth)	108.7 tons per consecutive 12-month period	15A NCAC 02Q .0317 (PSD avoidance)
Total Particulate Matter (from melter)	97.15 tons per consecutive 12-month period	
Toxic Air Pollutants	State-enforceable only See Section 2.2 B.1	15A NCAC 02D .1100
Toxic Air Pollutants	State-enforceable only See Section 2.2 B.2	15A NCAC 02Q .0711

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

a. Emissions of particulate matter from the melter, refiner, and forehearths **(ID Nos. 520M, 520R, 520F-A, and 520F-B)** combined shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ (for process rates less than or equal to 30 tons per hour), or
$E = 55 \times P^{0.11} - 40$ (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, combustion air and stoichiometric combustion oxygen are not considered as part of the process weight.

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

b. i. 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 02D .0515.
ii. The Permittee shall demonstrate compliance with the emission limit in Section 2.1 A.1.a above, on an annual basis (i.e., no more than 13 months from the previous test) by testing the furnace melter (**ID No. 520M**), unless an alternate date is approved by DAQ.
iii. As an alternative to the annual test requirement in Section 2.1 A.1.b.ii, if the results of the most recent test are less than 80 percent of the emission limit in Section 2.1 A.1.a above, the Permittee may conduct the subsequent test within 61 months of the previous test, unless an alternate date is approved by DAQ.
iv. For the purposes of determination of compliance with Section 2.1 A.1.a, the contribution of particulate matter emissions from the refiner and forehearth are assumed to be:

PM (filterable)	10% of the total furnace PM (filterable) emissions
PM (condensable)	10% of the total furnace PM (condensable) emissions

These emission factors may be revised administratively pending final review and approval of new source test data submitted to the DAQ.

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

c. The Permittee shall maintain production records such that the process rates "P" can be derived as specified above and shall make these records available to the DAQ upon request. The records shall include:
i. the date and approval status of the most recent source test conducted pursuant to Section 2.1 A.1.b above;
ii. the production rate at which the source test was conducted; and
iii. the maximum production rate achieved since the most recent source test conducted pursuant to Section 2.1 A.1.b above.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

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

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

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

a. Emissions of sulfur dioxide from these sources **(ID Nos. 520M, 520R, 520F-A, and 520F-B)** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

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

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas or propane in these sources **(ID Nos. 520M, 520R, 520F-A, and 520F-B)**.

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

a. i. Visible emissions from the refiner and forehearths **(ID Nos. 520R, 520F-A, and 520F-B)** 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 02D .0521(d)]
ii. Visible emissions from the furnace melter **(ID No. 520M)** shall not be more than 20 percent opacity when averaged over a six-minute period. [15A NCAC 02D .0521(c)]

b. For sources required to install, operate, and maintain continuous opacity monitoring systems (COMS) **(ID No. 520M),** compliance with the 20 percent opacity limit shall be determined as follows: [15A NCAC 02D .0521(g)]
   i. No more than four six-minute periods shall exceed the opacity standard in any one day; and
   ii. The percent of excess emissions (defined as the percentage of monitored operating time in a calendar quarter above the opacity limit) shall not exceed 0.8 percent of the total operating hours. If a source operates less than 500 hours during a calendar quarter, the percent of excess emissions shall be calculated by including hours operated immediately previous to this quarter until 500 operational hours are obtained.
   iii. Excess emissions during startup and shutdown shall be excluded from the above determinations if the excess emissions are exempted according to the procedures set out in 15A NCAC 02D .0535(g). Excess emissions during malfunctions shall be excluded from the above determinations if the excess emissions are exempted according to the procedures set out in 15A NCAC 02D .0535(c).
   iv. All periods of excess emissions shall be included in the above determinations until such time that the excess emissions are exempted according to the procedures in 15A NCAC 02D .0535.

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

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

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

d. To ensure compliance, once per calendar week the Permittee shall observe the emission points from the refiner and forehearths **(ID Nos. 520R, 520F-A, and 520F-B)** for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources 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 02D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.3.a above.

   The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if the required weekly observations are not conducted as required or if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made.

e. The Permittee shall use a continuous opacity monitor system (COMS) to monitor and record opacity from the melter **(ID No. 520M)**. The COMS shall be calibrated, maintained, tested, and operated in accordance with 40 CFR Part 60 Appendix B "Performance Specifications" and 15A NCAC 02D .0613. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if the monitoring is not performed, if the monitored opacity values exceed the limit in Section 2.1 A.3.b above, or if the records are not maintained.

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

f. The results of the observed opacity monitoring required by Section 2.1 A.3.d above, shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

g. The Permittee shall submit a summary report of the observations required by Section 2.1 A.3.d and 2.1 A.3.e above, 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. The Permittee shall submit the COMS data in accordance with the reporting requirements given in Section 2.1 A.4.k (40 CFR Part 60 Subpart CC reporting requirements). All instances of excess emissions with respect to 15A NCAC 02D .0521 must be clearly identified.

4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

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 02D .0524 "New Source Performance Standards" (NSPS) as promulgated in 40 CFR Part 60 Subpart CC, including Subpart A "General Provisions."

Emission Limitations [15A NCAC 02Q .0508(b), 40 CFR 60.293]

b. The filterable particulate matter emissions from the furnace melter (**ID No. 520M**) shall not exceed 0.5 grams per kilogram (1.0 pound per ton of glass produced). [40 CFR 60.293(b)(3)]

Testing [15A NCAC 02Q .0508(f), 40 CFR 60.293(f)]

c. The following testing requirements apply:
   i. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of the test are above the limit given in Section 2.1 A.4.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.
   ii. The Permittee shall demonstrate compliance with the emission limit in Section 2.1 A.4.b above by conducting emission testing on the melter (**ID No. 520M)**:
      (A) Each test shall be conducted annually (within 13 months of the previous stack test) unless an alternate date is approved by DAQ.
      (B) As an alternative to the annual test requirement in Section 2.1 A.4.c.ii(A), if the results of the most recent test are less than 80 percent of the emission limit in Section 2.1 A.4.b above, the Permittee may conduct the subsequent test within 61 months of the previous test, unless an alternate date is approved by DAQ.

   If these testing requirements are not met, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

Monitoring [15A NCAC 02Q .0508(f), 40 CFR 60.13 and 60.293]

d. The following monitoring requirements apply:
   i. The Permittee shall install, calibrate, maintain, and operate a continuous monitoring system for the measurement of the opacity of emissions (COMS) discharged into the atmosphere from the melter (**ID No. 520M)**. [40 CFR 60.293(c)]
   ii. The COMS shall be calibrated, maintained, tested, and operated in accordance with 40 CFR Part 60 Appendix B "Performance Specifications", 40 CFR 60.13 and 15A NCAC 02D .0613.
   iii. Valid six-minute averages shall be calculated pursuant to 40 CFR 60.13.
   iv. Three-hour block average opacity values shall be calculated as the arithmetic average of any and all valid six-minute averages within a three-hour period. A three-hour period means a 180-minute period commencing at 12am, 3am, 6am, 9am, 12pm, 3pm, 6pm, and 9pm each day.
   v. Excluding periods of startup, shut down and malfunction of the melter (**ID No. 520M**), no three-hour block average opacity value shall exceed the value in Table 2.1 A.4.

Table 2.1 A.4

Six-minute average 99% UCL opacity value (percent)	Three-hour block average opacity value (percent)
19.4	24.3

   vi. The three-hour block average opacity value above was established by using the three 1-hour average opacity values from the compliance stack test and determining the 99% Upper Confidence Limit (UCL) of the three 1-hour averages from the initial compliance stack test. The resultant three-hour opacity UCL value was then pro-rated to the NSPS particulate limit (1.0 pounds of PM per ton of glass pulled), by using the average PM emission rate determined during the compliance stack test.
   vii. The Permittee may, consistent with the provisions of 40 CFR 60.293(e), reestablish the UCL value in Table 2.1 A.4 during subsequent performance tests.
      (A) The Permittee shall reestablish the three-hour block average opacity limit value contained in Table 2.1 A.4 above concurrently with the testing conducted pursuant to Section 2.1 A.4.d.vii above.

(B) The Permittee shall submit a permit application with the test reports for any testing conducted pursuant to Section 2.1 A.4.d.vii above to revise the associated parameters in Table 2.1 A.4. The parameters in Table 2.1 A.4 do not apply during these performance tests.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these monitoring requirements are not met.

e. For the purposes of 40 CFR 60.293(c)(5) and 60.7, Excess Emissions are defined as all of the 6-minute periods during which the average opacity of the emissions from the furnace melter (**ID No. 520M**) exceed the 99% UCL value in Table 2.1 A.4.

f. The Permittee shall calculate the Percent Excess Emissions During Normal Operation using the following equation:

Percent Excess Emissions During Normal Operation (%EE):

$$\%EE = \frac{\text{Duration of Excess Emissions} - \text{Duration of Excess Emissions During Startup, Shutdown, and Malfunction}}{\text{Durnace Operating Time} - \text{Duration of Startup, Shutdown, and Malfunction}} \times 100\%$$

Where:

Excess Emissions	=	Defined in Section 2.1 A.4.e.
Duration of Excess Emissions	=	Summation of the excess emissions in hours during the given calendar three-month period
Duration of Excess Emissions During Startup, Shutdown, and Malfunction	=	Summation of the excess emissions in hours occurring during all periods of startup/shutdown/malfunction during the given calendar three-month period
Furnace Operating Time*	=	Summation of the operation time of the source in hours during the given calendar three-month period
Duration of Startup, Shutdown, and Malfunction	=	Summation of the operation time of the source in hours occurring during all periods of startup/shutdown/malfunction during the given calendar three-month period

* If the furnace operates less than 500 hours during any calendar three-month period, the Permittee may perform the above calculations using all of the operating data for the current calendar three-month period and the most recent data for the proceeding calendar three-month period until 500 hours of data are obtained. [N.C.G.S. 143-215.110]

Acceptable Operation and Maintenance [15A NCAC 02Q .0508(f)]

g. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the Percent Excess Emissions from the furnace melter (**ID No. 520M)** exceeds 3 percent in any calendar three-month period (January through March, April through June, July through September October through December).

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

h. The following recordkeeping requirements shall apply:
   i. The Permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b)]
   ii. The Permittee shall maintain records of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; recorded in a permanent form suitable for inspection. The records shall be retained for at least two years following the date of such measurements, maintenance, reports, and records. [40 CFR 60.7(f)]
   iii. The Permittee shall record and maintain records of:
      (A) Furnace operating time;
      (B) Three-hour block average opacity values.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these recordkeeping requirements are not met.

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

i. The Permittee shall submit a quarterly summary report of the monitoring and recordkeeping activities given in Sections 2.1 A.4.d through h above. The quarterly reports, acceptable to the Regional Air Quality Supervisor, 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 report shall include:
   i. an excess emissions and monitoring systems performance report. The report shall contain the information required pursuant 40 CFR 60.7(c) and (d). The emissions and monitoring system performance results shall be calculated on a quarterly basis. [40 CFR 60.293(c)(5) and 60.7(c)] The format for the report will be provided by the DAQ. If this reporting requirement is not met, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.
   ii. a report containing Percent Excess Emissions During Normal Operation and Furnace Operating Time, as defined in Section 2.1 A.4.f above; and
   iii. a report of the three-hour block average opacity values that exceed the value in Table 2.1 A.4.
   vi. All instances of deviations from the requirements of this permit must be clearly identified

5. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. To comply with this permit and avoid the applicability of 15A NCAC 02D .0530 "Prevention of Significant Deterioration," as requested by the Permittee, emissions from these sources **(ID Nos. 520M, 520R, 520FA, and 520FB)** shall not exceed the following limitations:

Pollutant	Emissions Limitation
PM_{10} (filterable and condensable)	108.7 tons per consecutive 12-month period (from melter, refiner, and forehearth)
Particulate Matter	97.15 tons per consecutive 12-month period (from melter)

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

b. i. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 A.5.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.
   ii. The Permittee shall develop an emission factor for PM_{10} from the melter, refiner, and forehearths (**ID Nos. 520M, 520R, 520FA, and 520FB**) and for PM from the melter (**ID No. 520M**) by testing these sources on an annual basis (i.e., no more than 13 months from the previous test), unless an alternate date is approved by DAQ.
   iii. As an alternative to the annual test requirement in Section 2.1 A.5.b.ii above, the Permittee may instead develop these emission factors using the testing required by Section 2.1 A.1.b above.

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

c. i. The Permittee shall calculate monthly emissions of PM_{10} from the melter, refiner, and forehearth **(ID Nos. 520M, 520R, 520FA, and 520FB)** and monthly emissions of PM from the melter **(ID No. 520M)**
   ii. Calculations of PM and PM_{10} shall be based on the actual production rate of the furnace multiplied by an emission factor determined using the emission testing required by Section 2.1 A.4.b above.
   iii. The Permittee shall maintain each monthly record on file for a minimum of five (5) years.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the above records are not kept or if any of the pollutant emissions exceed their respective limit in Section 2.1 A.5.a above.

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

d. The Permittee shall submit a semiannual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
   i. The monthly emissions for each pollutant listed in Section 2.1 A.5.a for the previous 17 months.
   ii. The rolling 12-month total emissions for each pollutant for the previous 17 months.
   iii. All instances of deviations from the requirements of this permit must be clearly identified.

B. Double level fiberglass furnace No. 524, using only EFB technology, consisting of the following: natural gas/propane/direct oxygen-fired melter equipped with electric boost (ID No. 524M) natural gas/propane/direct oxygen-fired refiner (ID No. 524R) natural gas/propane/direct oxygen-fired forehearth (ID No. 524F)

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter (from melter, refiner, and forehearth)	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons per hour, or $E = 55 \times P^{0.11} - 40$ for $P > 30$ tons per hour Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Sulfur Dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible Emissions (from melter, refiner, and forehearth)	20 percent opacity	15A NCAC 02D .0521
Fluorides	**Melter only (ID No. 524M)**, **State-enforceable only** 0.45 pounds per ton of glass pulled (annual basis) **See Section 2.2 C.1**	NCGS 143-215.108(c)
Particulate Matter (filterable only)	**Melter only (ID No. 524M)** 1.0 pounds per ton of glass produced	15A NCAC 02D .0524 (NSPS Subpart CC)
Particulate Matter (from melter, refiner, and forehearth)	72.33 tons per consecutive 12-month period	15A NCAC 02Q .0317 (PSD avoidance)
PM_{10} (from melter, refiner, and forehearth)	58.19 tons per consecutive 12-month period	
Nitrogen Oxides	91.20 tons per consecutive 12-month period	
Sulfur Dioxide	114.4 tons per consecutive 12-month period	
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 B.1**	15A NCAC 02D .1100
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 B.2**	15A NCAC 02Q .0711

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

a. Emissions of particulate matter from the melter, refiner, and forehearths **(ID Nos. 524M, 524R, and 524F)** combined shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ (for process rates less than or equal to 30 tons per hour), or
$E = 55 \times P^{0.11} - 40$ (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, combustion air and stoichiometric combustion oxygen are not considered as part of the process weight.

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

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

ii. The Permittee shall demonstrate compliance with the emission limit in Section 2.1 B.1.a above, on an annual basis (i.e., no more than 13 months from the previous test) by testing the furnace melter (**ID No. 524M**), unless an alternate date is approved by DAQ.
iii. As an alternative to the annual test requirement in Section 2.1 B.1.b.ii, if the results of the most recent test are less than 80 percent of the emission limit in Section 2.1 B.1.a above, the Permittee may conduct the subsequent test within 61 months of the previous test, unless an alternate date is approved by DAQ.
iv. For the purposes of determination of compliance with Section 2.1 B.1.a, the contribution of particulate matter emissions from the refiner and forehearth are assumed to be:

PM (filterable)	10% of the total furnace PM (filterable) emissions
PM (condensable)	10% of the total furnace PM (condensable) emissions

These emission factors may be revised administratively pending final review and approval of new source test data submitted to the DAQ.

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

c. The Permittee shall maintain production records such that the process rates "P" can be derived as specified above and shall make these records available to the DAQ upon request. The records shall include:
i. the date and approval status of the most recent source test conducted pursuant to Section 2.1 B.1.b above;
ii. the production rate at which the source test was conducted; and
iii. the maximum production rate achieved since the most recent source test conducted pursuant to Section 2.1 B.1.b above.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

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

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

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

a. Emissions of sulfur dioxide from these sources **(ID Nos. 524M, 524R, and 524F)** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

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

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas/propane in these sources **(ID Nos. 524M, 524R, and 524F)**.

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

a. i. Visible emissions from the refiner and forehearths **(ID Nos. 524R and 524F)** 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 02D .0521(d)]
ii. Visible emissions from the furnace melter **(ID No. 524M)** shall not be more than 20 percent opacity when averaged over a six-minute period. [15A NCAC 02D .0521(c)]

b. For sources required to install, operate, and maintain continuous opacity monitoring systems (COMS) **(ID No. 524M)**, compliance with the 20 percent opacity limit shall be determined as follows: [15A NCAC 02D .0521(g)]
i. No more than four six-minute periods shall exceed the opacity standard in any one day; and

ii. The percent of excess emissions (defined as the percentage of monitored operating time in a calendar quarter above the opacity limit) shall not exceed 0.8 percent of the total operating hours. If a source operates less than 500 hours during a calendar quarter, the percent of excess emissions shall be calculated by including hours operated immediately previous to this quarter until 500 operational hours are obtained.
iii. Excess emissions during startup and shutdown shall be excluded from the above determinations if the excess emissions are exempted according to the procedures set out in 15A NCAC 02D .0535(g). Excess emissions during malfunctions shall be excluded from the above determinations if the excess emissions are exempted according to the procedures set out in 15A NCAC 02D .0535(c).
iv. All periods of excess emissions shall be included in the above determinations until such time that the excess emissions are exempted according to the procedures in 15A NCAC 02D .0535.

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

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

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

d. To ensure compliance, once per calendar week the Permittee shall observe the emission points from the refiner and forehearths **(ID Nos. 524R and 524F)** for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources 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 02D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 B.3.a above.

   The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if the required weekly observations are not conducted as required or if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made.

e. The Permittee shall use a continuous opacity monitor system (COMS) to monitor and record opacity from the melter. The COMS shall be calibrated, maintained, tested, and operated in accordance with 40 CFR Part 60 Appendix B "Performance Specifications" and 15A NCAC 02D .0613. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if the monitoring is not performed, if the monitored opacity values exceed the limit in Section 2.1 B.3.b above, or if the records are not maintained.

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

f. The results of the observed opacity monitoring required by Section 2.1 B.3.d and 2.1 B.3.e above, shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

g. The Permittee shall submit a summary report of the observations required by Section 2.1 B.3.f above, 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. The Permittee shall submit the COMS data in accordance with the reporting requirements given in Section 2.1 B.4.1 (40 CFR Part 60 Subpart CC reporting requirements). All instances of excess emissions with respect to 15A NCAC 02D .0521 must be clearly identified.

4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

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 02D .0524 "New Source Performance Standards" (NSPS) as promulgated in 40 CFR Part 60 Subpart CC, including Subpart A "General Provisions."

Emission Limitations [15A NCAC 02Q .0508(b), 40 CFR 60.293]

b. The filterable particulate matter emissions from the furnace melter (**ID No. 524M**) shall not exceed 0.5 grams per kilogram (1.0 pound per ton of glass produced). [40 CFR 60.293(b)(3)]

Testing [15A NCAC 02Q .0508(f), 40 CFR 60.293(f)]

c. The following testing requirements apply:
   i. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of the test are above the limit given in Section 2.1 B.4.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.
   ii. The Permittee shall demonstrate compliance with the emission limit in Section 2.1 B.4.b above by conducting emission testing on the melter (**ID No. 524M)**:
      (A) Each test shall be conducted annually (within 13 months of the previous stack test) unless an alternate date is approved by DAQ.
      (B) As an alternative to the annual test requirement in Section 2.1 B.4.c.ii(A), if the results of the most recent test are less than 80 percent of the emission limit in Section 2.1 B.4.b above, the Permittee may conduct the subsequent test within 61 months of the previous test, unless an alternate date is approved by DAQ.

   If these testing requirements are not met, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

Monitoring [15A NCAC 02Q .0508(f), 40 CFR 60.13 and 60.293]

d. The following monitoring requirements apply:
   i. The Permittee shall install, calibrate, maintain, and operate a continuous monitoring system for the measurement of the opacity of emissions (COMS) discharged into the atmosphere from the melter (**ID No. 524M)**. [40 CFR 60.293(c)]
   ii. The COMS shall be calibrated, maintained, tested, and operated in accordance with 40 CFR Part 60 Appendix B "Performance Specifications," 40 CFR 60.13 and 15A NCAC 02D .0613.
   iii. Valid six-minute averages shall be calculated pursuant to 40 CFR 60.13.
   iv. Three-hour block average opacity values shall be calculated as the arithmetic average of any and all valid six-minute averages within a three-hour period. A three-hour period means a 180-minute period commencing at 12am, 3am, 6am, 9am, 12pm, 3pm, 6pm, and 9pm each day.
   v. Excluding periods of startup, shut down and malfunction of the melter (**ID No. 524M**), no three-hour block average opacity value shall exceed the value in Table 2.1 B.4 below.

Table 2.1 B.4

Six-minute average 99% UCL opacity value (percent)	Three-hour block average opacity value (percent)
6.9	11.8

   vi. The three-hour block average opacity value above was established by using the three 1-hour average opacity values from the compliance stack test and determining the 99% Upper Confidence Limit (UCL) of the three 1-hour averages from the initial compliance stack test. The resultant three-hour opacity UCL value was then pro-rated to the NSPS particulate limit (1.0 pounds of PM per ton of glass pulled), by using the average PM emission rate determined during the compliance stack test.
   vii. The Permittee may, consistent with the provisions of 40 CFR 60.293(e), reestablish the UCL value in Table 2.1 B.4 above during subsequent performance tests.
      (A) The Permittee shall reestablish the three-hour block average opacity limit value contained in Table 2.1 B.4 above concurrently with the testing conducted pursuant to Section 2.1 B.4.d.vii above.

(B) The Permittee shall submit a permit application with the test reports for any testing conducted pursuant to Section 2.1 B.4.d.vii above to revise the associated parameters in Table 2.1 B.4. The parameters in Table 2.1 B.5 do not apply during these performance tests.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these monitoring requirements are not met.

e. For the purposes of 40 CFR 60.293(c)(5) and 60.7, Excess Emissions are defined as all of the 6-minute periods during which the average opacity of the emissions from the furnace melter (**ID No. 524M**) exceed the 99% UCL value in Table 2.1 B.5.

f. The Permittee shall calculate the Percent Excess Emissions During Normal Operation using the following equation:

Percent Excess Emissions During Normal Operation (%EE):

$$\%EE = \frac{\text{Duration of Excess Emissions} - \text{Duration of Excess Emissions During Startup, Shutdown, and Malfunction}}{\text{Durnace Operating Time} - \text{Duration of Startup, Shutdown, and Malfunction}} \times 100\%$$

Where:

Excess Emissions	=	Defined in Section 2.1 B.4.e
Duration of Excess Emissions	=	Summation of the excess emissions in hours during the given calendar three-month period
Duration of Excess Emissions During Startup, Shutdown, and Malfunction	=	Summation of the excess emissions in hours occurring during all periods of startup/shutdown/malfunction during the given calendar three-month period
Furnace Operating Time*	=	Summation of the operation time of the source in hours during the given calendar three-month period
Duration of Startup, Shutdown, and Malfunction	=	Summation of the operation time of the source in hours occurring during all periods of startup/shutdown/malfunction during the given calendar three-month period

* If the furnace operates less than 500 hours during any calendar three-month period, the Permittee may perform the above calculations using all of the operating data for the current calendar three-month period and the most recent data for the proceeding calendar three-month period until 500 hours of data are obtained. [N.C.G.S. 143-215.110]

Acceptable Operation and Maintenance [15A NCAC 02Q .0508(f)]

g. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the Percent Excess Emissions from the furnace melter (**ID No. 524M**) exceeds 3 percent in any calendar three-month period (January through March, April through June, July through September October through December).

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

h. The following recordkeeping requirements shall apply:
   i. The Permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b)]
   ii. The Permittee shall maintain records of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; recorded in a permanent form suitable for inspection. The records shall be retained for at least two years following the date of such measurements, maintenance, reports, and records. [40 CFR 60.7(f)]
   iii. The Permittee shall record and maintain records of:
      (A) Furnace operating time;
      (B) Three-hour block average opacity values.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these recordkeeping requirements are not met.

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

i. The Permittee shall submit a quarterly summary report of the monitoring and recordkeeping activities given in Sections 2.1 B.4.d through h above. The quarterly reports, acceptable to the Regional Air Quality Supervisor, 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 report shall include:
   i. an excess emissions and monitoring systems performance report. The report shall contain the information required pursuant 40 CFR 60.7(c) and (d). The emissions and monitoring system performance results shall be calculated on a quarterly basis. [40 CFR 60.293(c)(5) and 60.7(c)] The format for the report will be provided by the DAQ. If this reporting requirement is not met, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.
   ii. a report containing Percent Excess Emissions During Normal Operation and Furnace Operating Time, as defined in Section 2.1 B.4.f above; and
   iii. a report of the three-hour block average opacity values that exceed the value in Table 2.1 B.4 above.
   vi. All instances of deviations from the requirements of this permit must be clearly identified

5. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. To comply with this permit and avoid the applicability of 15A NCAC 02D .0530 "Prevention of Significant Deterioration," as requested by the Permittee, emissions from the melter, refiner, and forehearth **(ID Nos. 524M, 524R, and 524F)**, shall not exceed the following limitations:

Pollutant	Emissions Limitation
Sulfur Dioxide	114.4 tons per consecutive 12-month period
Particulate Matter	72.33 tons per consecutive 12-month period
PM_{10}	58.19 tons per consecutive 12-month period
Nitrogen Oxides	91.2 tons per consecutive 12-month period

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

b. i. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.5.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.
   ii. The Permittee shall develop an emission factor for PM and PM_{10} from the melter, refiner, and forehearths (**ID Nos. 524M, 524R, and 524F**) by testing these sources on an annual basis (i.e., no more than 13 months from the previous test), unless an alternate date is approved by DAQ.
   iii. As an alternative to the annual test requirement in Section 2.1 B.5.b.ii above, the Permittee may instead develop these emission factors using the testing required by Section 2.1 B.1.b above.

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

c. i. The Permittee shall calculate monthly emissions of the pollutants listed in Section 2.1 B.4.a from the melter, refiner, and forehearth **(ID Nos. 524M, 524R, and 524F)**.
   ii. Calculations of PM and PM_{10} shall be based on the actual production rate of the furnace multiplied by an emission factor determined using the emission testing required by Section 2.1 B.1.b above.
   iii. Calculations of SO_2 and NOx shall be based on emission factors and calculation methods approved by DAQ.
   iv. The Permittee shall maintain each monthly record on file for a minimum of five (5) years.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the above records are not kept or if any of the pollutant emissions exceed their respective limit in Section 2.1 B.5.a above.

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

d. The Permittee shall submit a semiannual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding

six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:

i. The monthly emissions for each pollutant listed in Section 2.1 B.5.a for the previous 17 months.
ii. The rolling 12-month total emissions for each pollutant for the previous 17 months.
iii. All instances of deviations from the requirements of this permit must be clearly identified.

C. Double level fiberglass furnace No. 525, using only EFB technology, consisting of the following: natural gas / propane / direct oxygen fired melter with electric boost (ID No. 525M) natural gas / propane-fired refiner (ID No. 525R) natural gas / propane-fired forehearth (ID No. 525F)

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons per hour, or $E = 55 \times P^{0.11} - 40$ for $P > 30$ tons per hour Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Sulfur Dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Particulate Matter (filterable only)	**Melter only (ID No. 525M), State-enforceable only** 1.0 pounds per ton of glass produced	NCGS 143-215.108(c)
Fluorides	**Melter only (ID No. 525M), State-enforceable only** 0.45 pounds per ton of glass pulled (annual basis) **See Section 2.2 C.1**	NCGS 143-215.108(c)
Particulate Matter	81.63 tons per consecutive 12-month period	15A NCAC 02Q.0317 (PSD avoidance)
PM_{10}	71.63 tons per consecutive 12-month period	
Nitrogen Oxides	100 tons per consecutive 12-month period	
Sulfur Dioxide	164.69 tons per consecutive 12-month period	
Carbon Monoxide	114.55 tons per consecutive 12-month period	
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 B.1**	15A NCAC 02D .1100
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 B.2**	15A NCAC 02Q .0711
Particulate Matter (PM, PM_{10}, $PM_{2.5}$), Nitrogen Oxides, Volatile Organic Compounds, Carbon Monoxide, Sulfur Dioxide, Fluoride	Recordkeeping and reporting **See Section 2.1 C.6**	15A NCAC 02D .0530 (u)

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

a. Emissions of particulate matter from the melter, refiner, and forehearths **(ID Nos. 525M, 525R, and 525F)** combined shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ (for process rates less than or equal to 30 tons per hour), or
$E = 55 \times P^{0.11} - 40$ (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, combustion air and stoichiometric combustion oxygen are not considered as part of the process weight.

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

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

ii. The Permittee shall demonstrate compliance with the emission limit in Section 2.1 C.1.a above, on an annual basis (i.e., no more than 13 months from the previous test) by testing the furnace melter (**ID No. 525M**), unless an alternate date is approved by DAQ.
iii. As an alternative to the annual test requirement in Section 2.1 C.1.b.ii, if the results of the most recent test are less than 80 percent of the emission limit in Section 2.1 C.1.a above, the Permittee may conduct the subsequent test within 61 months of the previous test, unless an alternate date is approved by DAQ.
iv. For the purposes of determination of compliance with Section 2.1 C.1.a, the contribution of particulate matter emissions from the refiner and forehearth are assumed to be:

PM (filterable)	10% of the total furnace PM (filterable) emissions
PM (condensable)	10% of the total furnace PM (condensable) emissions

These emission factors may be revised administratively pending final review and approval of new source test data submitted to the DAQ.

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

c. The Permittee shall maintain production records such that the process rates "P" can be derived as specified above and shall make these records available to the DAQ upon request. The records shall include:
i. the date and approval status of the most recent source test conducted pursuant to Section 2.1 C.1.b above;
ii. the production rate at which the source test was conducted; and
iii. the maximum production rate achieved since the most recent source test conducted pursuant to Section 2.1 C.1.b above.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

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

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

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

a. Emissions of sulfur dioxide from these sources **(ID Nos. 525M, 525R, and 525F)** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

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

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas or propane in these sources **(ID Nos. 525M, 525R, and 525F)**.

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

a. Visible emissions from the furnace melter, refiner and forehearth **(ID Nos. 525M, 525R, and 525F)** 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.

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

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

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

c. To ensure compliance, once per calendar week the Permittee shall observe the emission points from the furnace melter, refiner and forehearth **(ID Nos. 525M, 525R, and 525F)** for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. The Permittee shall establish "normal" for these sources in the first 30 days following startup after the modifications described in Application No. 2300153.23A. If visible emissions from these sources 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 02D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 C.3.a above.

   The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if the required weekly observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made; or if "normal" is not established for these sources in the first 30 days following startup after the modifications described in Application No. 2300153.23A

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

d. The results of the observed opacity monitoring given in Section 2.1 C.3.c above shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1 C.3.c and 2.1 C.3.d above 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.

State-enforceable only

4. Pursuant to NCGS 143-215.108(c) and as required by the Special Order of Consent (SOC) (2002-002):

a. Filterable particulate matter emissions from the furnace melter (**ID No. 525M**) shall be less than 1.0 pounds per ton of glass produced.

Testing

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

Monitoring/Recordkeeping/Reporting

c. The Permittee shall determine compliance with the filterable PM emissions limitation via the testing requirements in Section 2.1 C.1 (15A NCAC 02D .0515 testing requirements).

5. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. To comply with this permit and avoid the applicability of 15A NCAC 02D .0530 "Prevention of Significant Deterioration," as requested by the Permittee, emissions from the melter, refiner, and forehearth **(ID Nos. 525M, 525R, and 525F)**, shall not exceed the following limitations:

Pollutant	Emissions Limitation
SO_2	164.69 tons per consecutive 12-month period
PM	81.63 tons per consecutive 12-month period
PM_{10}	71.63 tons per consecutive 12-month period

Pollutant	Emissions Limitation
NOx	100 tons per consecutive 12-month period
CO	114.55 tons per consecutive 12-month period

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

b. i. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.5.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.
ii. The Permittee shall develop an emission factor for PM and PM_{10} from the melter, refiner, and forehearths (**ID Nos. 525M, 525R, and 525F**) by testing these sources on an annual basis (i.e., no more than 13 months from the previous test), unless an alternate date is approved by DAQ.
iii. As an alternative to the annual test requirement in Section 2.1 C.5.b.ii above, the Permittee may instead develop these emission factors using the testing required by Section 2.1 C.1.b above.

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

c. i. The Permittee shall calculate monthly emissions of PM and PM_{10} from the melter, refiner, and forehearth **(ID Nos. 525M, 525R, and 525F)**.
ii. Calculations of PM and PM_{10} shall be based on the actual production rate of the furnace multiplied by an emission factor determined using the emission testing required by Section 2.1 C.1.b above.
iii. Calculations of SO_2, CO, and NOx shall be based on emission factors and calculation methods approved by DAQ.
iv. The Permittee shall maintain each monthly record on file for a minimum of five (5) years.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the above records are not kept or if any of the pollutant emissions exceed their respective limit in Section 2.1 C.5.a above.

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

d. The Permittee shall submit a semiannual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
i. The monthly emissions for each pollutant listed in Section 2.1 C.5.a for the previous 17 months.
ii. The rolling 12-month total emissions for each pollutant for the previous 17 months.
iii. All instances of deviations from the requirements of this permit must be clearly identified.

6. 15A NCAC 02D .0530(u): USE OF PROJECTED ACTUAL EMISSIONS TO AVOID APPLICABILITY OF PREVENTION OF SIGNIFICANT DETERIORATION REQUIREMENTS

a. i. The Permittee has used projected actual emissions to avoid applicability of Prevention of Significant Deterioration requirements for a project including demolition, cleaning, refurbishment and rebricking of Furnace No. 525, refurbishment of the HVAC system, and addition of electric boost that will allow the increased utilization of Furnace No. 525. This project is fully described in permit application no. 2300153.23A.
ii. The Permittee has used projected actual emissions to avoid applicability of Prevention of Significant Deterioration requirements for a project consisting of modifications to Furnace 525 and appurtenant equipment and is fully described in application no. 2300153.18A.
iii. In order to verify the assumptions used in the projected actual emissions calculations, the Permittee shall comply with the testing, record keeping and reporting requirements in Sections 2.1 C.6.b through e below.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the Permittee does not perform any required testing, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

c. The Permittee shall maintain records of the actual emissions of the pollutants listed in Table 2.1 C.6 from the furnace melter, refiner and forehearth **(ID Nos. 525M, 525R and 525F).** Records shall start and continue for five

years following the startup of Furnace 525 after the modifications described in Application No. 2300153.23A. The first year shall start on the first day of the first full calendar month after the startup of Furnace 525 after the modifications described in Application Nos. 2300153.18A and 23A. Each subsequent year shall include the same 12-month period. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if these records are not maintained.

i. Furnace 525 startup date was March 19, 2024.
ii. The recordkeeping period begins April 1, 2024.
iii. The recordkeeping period ends March 31, 2029.

d. The following recordkeeping requirements apply:
   i. The reported actual emissions (post-construction emissions) of the melter, refiner and forehearth **(ID No. 525M, 525R**, and **525F)** for each of the years will be compared to the projected actual emissions (pre-construction projection) included below:

Table 2.1 C.6

Pollutant	Projected Actual Emissions (tons per year)
PM	41.5
PM_{10}	24.7
$PM_{2.5}$	22.3
NOx	77.6
VOC	1.5
CO	17.3
SO_2	20.6
Fluoride	2.77

   ii. The projections in Table 2.1 C.6 are not enforceable limitations. If projected emissions are exceeded, consistent with 15A NCAC 02D .0530, the Permittee shall include in its annual report an explanation as to why the actual rates exceeded the projection.
   iii. The Permittee shall make the information, documented and maintained in this condition, available to the Director or the general public pursuant to the requirements in 40 CFR 70.4(b)(3)(viii).

[15A NCAC 02D .0530(u)]

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

e. The Permittee shall submit a report of the actual emissions from the Furnace 525 melter, refiner and forehearth (**ID Nos. 525M**, **525R**, and **525F)**) of the pollutants identified in Table 2.1 C.6 to the DAQ within 60 days after the end of each year (as defined in Section 2.1 C.6.c) during which the records in Section 2.1 C.6.c must be generated. The report shall contain the items listed in 40 CFR 51.166(r)(6)(v)(a) through (c). All instances of deviations from the requirements of this permit must be clearly identified. [15A NCAC 02D .0530(u)]

D. Double level fiberglass furnace No. 526, using only EFB technology, consisting of the following: natural gas / propane direct oxygen fired melter with electric boost (ID No. 526M) natural gas / propane-fired refiner (ID No. 526R) natural gas / propane-fired forehearth (ID No. 526F)

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter (from melter, refiner, and forehearth)	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons per hour, or $E = 55 \times P^{0.11} - 40$ for $P > 30$ tons per hour Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Sulfur Dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Fluorides	**Melter only (ID No. 526M)**, **State-enforceable only** 0.45 pounds per ton of glass pulled (annual basis) **See Section 2.2 C.1**	NCGS 143-215.108(c)
Particulate Matter (filterable only)	**Melter only (ID No. 526M)** 1.0 pounds per ton of glass produced	15A NCAC 02D .0524 (NSPS Subpart CC)
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 B.1**	15A NCAC 02D .1100
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 B.2**	15A NCAC 02Q .0711
Multiple pollutants	Testing, recordkeeping and reporting	15A NCAC 02D .0530(u)

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

a. Emissions of particulate matter from the melter, refiner, and forehearth **(ID Nos. 526M, 526R, and 526F)** combined shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ (for process rates less than or equal to 30 tons per hour), or
$E = 55 \times P^{0.11} - 40$ (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, combustion air and stoichiometric combustion oxygen are not considered as part of the process weight.

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

b. i. 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 D.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

ii. The Permittee shall demonstrate compliance with the emission limit in Section 2.1 D.1.a above, on an annual basis (i.e., no more than 13 months from the previous test) by testing the furnace melter (**ID No. 526M**), unless an alternate date is approved by DAQ.

iii. As an alternative to the annual test requirement in Section 2.1 D.1.b.ii, if the results of the most recent test are less than 80 percent of the emission limit in Section 2.1 D.1.a above, the Permittee may conduct the subsequent test within 61 months of the previous test, unless an alternate date is approved by DAQ.

iv. For the purposes of determination of compliance with Section 2.1 D.1a, the contribution of particulate matter emissions from the refiner and forehearth are assumed to be:

PM (filterable)	10% of the total furnace PM (filterable) emissions
PM (condensable)	10% of the total furnace PM (condensable) emissions

These emission factors may be revised administratively pending final review and approval of new source test data submitted to the DAQ.

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

c. The Permittee shall maintain production records such that the process rates "P" can be derived as specified above and shall make these records available to the DAQ upon request. The records shall include:
   i. the date and approval status of the most recent source test conducted pursuant to Section 2.1 D.1.b above;
   ii. the production rate at which the source test was conducted; and
   iii. the maximum production rate achieved since the most recent source test conducted pursuant to Section 2.1 D.1.b above.

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

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

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

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

a. Emissions of sulfur dioxide from these sources **(ID Nos. 526M, 526R and 526F)** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

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

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

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

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas and propane in these sources **(ID Nos. 526M, 526R and 526F)**.

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

a. i. Visible emissions from the refiner and forehearths **(ID Nos. 526R and 526F)** 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 02D .0521(d)]
   ii. Visible emissions from the fiberglass furnace melter **(ID No. 526M)** shall not be more than 20 percent opacity when averaged over a six-minute period. [15A NCAC 02D .0521(c)]

b. For sources required to install, operate, and maintain continuous opacity monitoring systems (COMS) **(ID No. 526M)**, compliance with the 20 percent opacity limit shall be determined as follows: [15A NCAC 02D .0521(g)]
   i. No more than four six-minute periods shall exceed the opacity standard in any one day; and
   ii. The percent of excess emissions (defined as the percentage of monitored operating time in a calendar quarter above the opacity limit) shall not exceed 0.8 percent of the total operating hours. If a source operates less than 500 hours during a calendar quarter, the percent of excess emissions shall be calculated by including hours operated immediately previous to this quarter until 500 operational hours are obtained.
   iii. Excess emissions during startup and shutdown shall be excluded from the above determinations if the excess emissions are exempted according to the procedures set out in 15A NCAC 02D .0535(g). Excess emissions during malfunctions shall be excluded from the above determinations if the excess emissions are exempted according to the procedures set out in 15A NCAC 02D .0535(c).
   iv. All periods of excess emissions shall be included in the above determinations until such time that the excess emissions are exempted according to the procedures in 15A NCAC 02D .0535.

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

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

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

d. To ensure compliance, once per calendar week the Permittee shall observe the emission points from the refiner and forehearths **(ID Nos. 526R and 526F)** for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources 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 02D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 D.3.a above.

   The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if the required weekly observations are not conducted as required or if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made.

e. The Permittee shall use a continuous opacity monitor system (COMS) to monitor and record opacity from the melter **(ID No 526M)**. The COMS shall be calibrated, maintained, tested, and operated in accordance with 40 CFR Part 60 Appendix B "Performance Specifications" and 15A NCAC 02D .0613. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if the monitoring is not performed, if the monitored opacity values exceed the limit in Section 2.1 D.3.b above, or if the records are not maintained.

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

f. The results of the observed opacity monitoring required by Section 2.1 D.3.d and 2.1 D.3.e above, shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

g. The Permittee shall submit a summary report of the observations required by Section 2.1 D.3.f above, 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. The Permittee shall submit the COMS data in accordance with the reporting requirements given in Section 2.1 D.4.i (40 CFR Part 60 Subpart CC reporting requirements). All instances of excess emissions with respect to 15A NCAC 02D .0521 must be clearly identified.

4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

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 02D .0524 "New Source Performance Standards" (NSPS) as promulgated in 40 CFR Part 60 Subpart CC, including Subpart A "General Provisions."

Emission Limitations [15A NCAC 02Q .0508(b), 40 CFR 60.293]

b. The filterable particulate matter emissions from the furnace melter (**ID No. 526M**) shall not exceed 0.5 grams per kilogram (1.0 pound per ton of glass produced). [40 CFR 60.293(b)(3)]

Testing [15A NCAC 02Q .0508(f), 40 CFR 60.293(f)]

c. The following testing requirements apply:

i. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of the test are above the limit given in Section 2.1 D.4.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.
ii. The Permittee shall demonstrate compliance with the emission limit in Section 2.1 D.4.b above by conducting emission testing on the melter (**ID No. 526M)**:
(A) Each test shall be conducted annually (within 13 months of the previous stack test) unless an alternate date is approved by DAQ.
(B) As an alternative to the annual test requirement in Section 2.1 D.4.c.ii(A), if the results of the most recent test are less than 80 percent of the emission limit in Section 2.1 D.4.b above, the Permittee may conduct the subsequent test within 61 months of the previous test, unless an alternate date is approved by DAQ.
If these testing requirements are not met, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

Monitoring [15A NCAC 02Q .0508(f), 40 CFR 60.13 and 60.293]

d. The following monitoring requirements apply:
i. The Permittee shall install, calibrate, maintain, and operate a continuous monitoring system for the measurement of the opacity of emissions (COMS) discharged into the atmosphere from the melter (**ID No. 526M)**. [40 CFR 60.293(c)]
ii. The COMS shall be calibrated, maintained, tested, and operated in accordance with 40 CFR Part 60 Appendix B "Performance Specifications," 40 CFR 60.13 and 15A NCAC 02D .0613.
iii. Valid six-minute averages shall be calculated pursuant to 40 CFR 60.13.
iv. Three-hour block average opacity values shall be calculated as the arithmetic average of any and all valid six-minute averages within a three-hour period. A three-hour period means a 180-minute period commencing at 12am, 3am, 6am, 9am, 12pm, 3pm, 6pm, and 9pm each day.
v. Excluding periods of startup, shut down and malfunction of the melter (**ID No. 526M**), no three-hour block average opacity value shall exceed the value in Table 2.1 D.4.

Table 2.1 D.4

Six-minute average 99% UCL opacity value (percent)	Three-hour block average opacity value (percent)
5.2	6.4

vi. The three-hour block average opacity value above was established by using the three 1-hour average opacity values from the compliance stack test and determining the 99% Upper Confidence Limit (UCL) of the three 1-hour averages from the initial compliance stack test. The resultant three-hour opacity UCL value was then pro-rated to the NSPS particulate limit (1.0 pounds of PM per ton of glass pulled), by using the average PM emission rate determined during the compliance stack test.
vii. The Permittee may, consistent with the provisions of 40 CFR 60.293(e), reestablish the UCL value in Table 2.1 D.4 during subsequent performance tests.
(A) The Permittee shall reestablish the three-hour block average opacity limit value contained in Table 2.1 D.4 concurrently with the testing conducted pursuant to Section 2.1 D.4.d.vii above.
(B) The Permittee shall submit a permit application with the test reports for any testing conducted pursuant to Section 2.1 D.4.d.vii above to revise the associated parameters in Table 2.1 D.4. The parameters in Table 2.1 D.4 do not apply during these performance tests.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these monitoring requirements are not met.

e. For the purposes of 40 CFR 60.293(c)(5) and 60.7, Excess Emissions are defined as all of the 6-minute periods during which the average opacity of the emissions from the furnace melter (**ID No. 526M**) exceed the 99% UCL value in Table 2.1 D.4.

f. The Permittee shall calculate the Percent Excess Emissions During Normal Operation using the following equation:

Percent Excess Emissions During Normal Operation (%EE):

$$\%EE = \frac{\text{Duration of Excess Emissions} - \text{Duration of Excess Emissions During Startup, Shutdown, and Malfunction}}{\text{Furnace Operating Time} - \text{Duration of Startup, Shutdown, and Malfunction}} \times 100\%$$

Where:

Excess Emissions	=	Defined in Section 2.1 D.4.e.
Duration of Excess Emissions	=	Summation of the excess emissions in hours during the given calendar three-month period
Duration of Excess Emissions During Startup, Shutdown, and Malfunction	=	Summation of the excess emissions in hours occurring during all periods of startup/shutdown/malfunction during the given calendar three-month period
Furnace Operating Time*	=	Summation of the operation time of the source in hours during the given calendar three-month period
Duration of Startup, Shutdown, and Malfunction	=	Summation of the operation time of the source in hours occurring during all periods of startup/shutdown/malfunction during the given calendar three-month period

* If the furnace operates less than 500 hours during any calendar three-month period, the Permittee may perform the above calculations using all of the operating data for the current calendar three-month period and the most recent data for the proceeding calendar three-month period until 500 hours of data are obtained. [N.C.G.S. 143-215.110]

Acceptable Operation and Maintenance [15A NCAC 02Q .0508(f)]

g. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the Percent Excess Emissions from the furnace melter (**ID No. 526M)** exceeds 3 percent in any calendar three-month period (January through March, April through June, July through September October through December).

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

h. The following recordkeeping requirements shall apply:
   i. The Permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b)]
   ii. The Permittee shall maintain records of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; recorded in a permanent form suitable for inspection. The records shall be retained for at least two years following the date of such measurements, maintenance, reports, and records. [40 CFR 60.7(f)]
   iii. The Permittee shall record and maintain records of:
      (A) Furnace operating time;
      (B) Three-hour block average opacity values.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these recordkeeping requirements are not met.

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

i. The Permittee shall submit a quarterly summary report of the monitoring and recordkeeping activities given in Sections 2.1 D.4.d through h above. The quarterly reports, acceptable to the Regional Air Quality Supervisor, 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 report shall include:
   i. an excess emissions and monitoring systems performance report. The report shall contain the information required pursuant 40 CFR 60.7(c) and (d). The emissions and monitoring system performance results shall be calculated on a quarterly basis. [40 CFR 60.293(c)(5) and 60.7(c)] The format for the report will be provided by the DAQ. If this reporting requirement is not met, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

ii. a report containing Percent Excess Emissions During Normal Operation and Furnace Operating Time, as defined in Section 2.1 D.4.f above; and
iii. a report of the three-hour block average opacity values that exceed the value in Table 2.1 D.4.
vi. All instances of deviations from the requirements of this permit must be clearly identified

E. The following sources:

Table 2.1 E.1

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ESDC116(silo #5)	One raw material storage silo (34 tons/hr nominal process rate)	DC116(silo#5), DC117(silo#5)	bagfilter (10:1 gas-to-cloth ratio) in parallel with bagfilter (10:1 gas-to-cloth ratio)
ESDC118(silo #6)	One raw material storage silo (34 tons/hr nominal process rate)	DC118(silo #6), DC131(silo #6)	bagfilter (10:1 gas-to-cloth ratio) in parallel with bagfilter (10:1 gas-to-cloth ratio
ESDC127(silo #14)	One raw material storage silo (34 tons/hr nominal process rate)	DC127(silo #14)	Cartridge filter (150 square feet of filter area)
ESDC153(silo #15)	One raw material storage silo (34 tons/hr nominal process rate)	DC153(silo #15)	One baghouse (10:1 gas-to-cloth ratio)
ESDC132(silo #18)	One raw material storage silo (34 tons/hr nominal process rate each)	DC132(silo #18), DC133(silo #18)	bagfilter (10:1 gas-to-cloth ratio) in parallel with bagfilter (10:1 gas-to-cloth ratio)
ESDC134(silo #19)	One raw material storage silo (34 tons/hr nominal process rate)	DC134(silo #19), DC135(silo #19)	Cartridge filter (150 square feet of filter area) in parallel with Cartridge filter (150 square feet of filter area)
ESDC112(silo #1), ESDC113(silo #2), ESDC114(silo #3), ESDC115(silo #4), ESDC124(silo #11), ESDC125(silo #12), ESDC126(silo #13), ESDC154(silo #16)	Eight raw material storage silos (34 tons/hr nominal process rate each)	DC112(silo #1), DC113(silo #2), DC114(silo #3), DC115(silo #4), DC124(silo #11), DC125(silo #12), DC126(silo #13), DC154(silo #16)	Eight baghouses (10:1 gas-to-cloth ratio each)

Table 2.1 E.2

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
525FBSB#1 525FBSB#2	Two furnace batch storage bins serving furnace 525 (10.3 tons/hr nominal process rate each)	DC100, DC101	Two cartridge filters (1,080 square feet of filter area each)
524FBSB#1 524FBSB#2	Two furnace batch storage bins serving furnace 524 (30 tons/hr nominal process rate each)	DC102, DC103	Two baghouses (10:1 gas-to-cloth ratio each)
520FBSB#1 520FBSB#2	Two furnace batch storage bins serving furnace 520 (10 tons/hr nominal process rate each)	DC104, DC105	Two baghouses (10:1 gas-to-cloth ratio each)

Table 2.1 E.3

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
526MBSB#1, 526MBSB#2	Two mixed batch storage bins serving furnace 526 (12.2 tons/hr nominal process rate each)	DC382, DC383	Two baghouses (5.3:1 gas-to-cloth ratio each)
EPDC129	One batch storage bin (13 tons/hr nominal process rate) serving furnace 526	DC129	One baghouse (8:1 gas-to-cloth ratio)
	**Raw material batch house bins identified as follows:		
EPDC160	Blender A	DC160	Cartridge-type filter
EPDC161	Blender B	DC161	Cartridge-type filter
EPDC162	Silo 17	DC162	Cartridge-type filter
EPDC163	Scale Bin 1	DC163	Cartridge-type filter
EPDC164	Scale Bin 2	DC164	Cartridge-type filter
EPDC165	Scale Bin 3	DC165	Cartridge-type filter
EPDC166	Scale Bin 4A	DC166	Cartridge-type filter
EPDC167	Scale Bin 4B	DC167	Cartridge-type filter
EPDC168	Scale Bin 5	DC168	Cartridge-type filter
EPDC169	Scale Bin 6	DC169	Cartridge-type filter
EPDC170	Scale Bin 7	DC170	Cartridge-type filter
EPDC171	Scale Bin 8	DC171	Cartridge-type filter
EPDC172	Bag Breaker 1	DC172	Cartridge-type filter
EPDC173	Bag Breaker 2	DC173	Cartridge-type filter
EPDC174	Bag Breaker 3	DC174	Cartridge-type filter
EPDC175	Silo 20	DC175	Cartridge-type filter
EPDC176	Scale Bin 11	DC176	Cartridge-type filter
EPDC177	MBSB 1	DC177	Cartridge-type filter
EPDC178	MBSB 2	DC178	Cartridge-type filter
EPDC179	MBSB 3	DC179	Cartridge-type filter
EPDC180	MSBS 6	DC180	Cartridge-type filter
EPDC181	MBSB7	DC181	Cartridge-type filter
EPDC182	Batch House Central Vacuum System	DC182	Cartridge-type filter (1,860 square feet of filter area)
EPDC183	Batch House Scale Area Vacuum System	DC183	Cartridge-type filter (18,288 square feet of filter area)
EPDC184	Raw Material Batch Bin MBSB5(755 cubic feet storage capacity)	DC184	Cartridge filter (1470 square feet of filter area)
EPDC185	Raw Material Batch Bin MBSB8 (755 cubic feet storage capacity)	DC185	Cartridge filter (1,470 square feet of filter area)
EPDC186	Raw Material Batch Bin MBSB9 (776 cubic feet storage capacity)	DC186	Cartridge filter (1,470 square feet of filter area)
EPDC187	Raw Material Batch Bin MBSB10 (776cubic feet storage capacity)	DC187	Cartridge filter (1,470 square feet of filter area)

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons per hour, or $E = 55 \times P^{0.11} - 40$ for $P > 30$ tons per hour Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible Emissions	20 percent opacity each	15A NCAC 02D .0521
Particulate Matter	23.04 tons per consecutive 12-month period combined total **Table 2.1 E.1** 1.05 tons per consecutive 12-month period each **Table 2.1 E.2**	15A NCAC 02Q .0317 (PSD avoidance)

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

a. Emissions of particulate matter from each of these sources (listed in Tables 2.1 E.1, 2.1 E.2, and 2.1 E.3 above) shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ (for process rates less than or equal to 30 tons per hour), or
$E = 55 \times P^{0.11} - 40$ (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, combustion air and stoichiometric combustion oxygen are not considered as part of the process weight.

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

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

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

c. Particulate matter emissions from these emission sources (listed in Tables 2.1 E.1, 2.1 E.2, and 2.1 E.3) shall be controlled by their respective filter systems. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. an annual visual inspection of the system ductwork and material collection unit for leaks; and
   ii. an annual (for each 12-month period following the initial inspection) internal inspection of the filter systems' structural integrity.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and filter systems 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 filter systems; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

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

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

e. The Permittee shall submit the results of any maintenance performed on the filter systems within 30 days of a written request by the DAQ.

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

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

a. Visible emissions from these emission sources (listed in Tables 2.1 E.1, 2.1 E.2, and 2.1 E.3) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

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

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

c. To ensure compliance, once per calendar month the Permittee shall observe the emission points from these emission sources (listed in Tables 2.1 E.1, 2.1 E.2, and 2.1 E.3) for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources 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 02D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 E.2.a above.

   The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if the required daily observations are not conducted as required or if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made.

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

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

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

3. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. In order to avoid the applicability of 15A NCAC 02D .0530 "Prevention of Significant Deterioration," as requested by the Permittee, the combined total of particulate matter emissions from the sources listed in Table 2.1 E.1. shall not exceed 23.04 tons per consecutive 12-month period.

b. In order to avoid the applicability of 15A NCAC 02D .0530 "Prevention of Significant Deterioration," as requested by the Permittee, the particulate matter emissions from the sources listed in Table 2.1 E.2 shall not exceed 1.05 tons per consecutive 12-month period each.

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

c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

d. Monitoring/recordkeeping requirements in Section 2.1 E.1.c and d above, shall be sufficient to ensure compliance with 15A NCAC 02D .0530. If the requirements of Section 2.1 E.1.c and d, above, are not performed, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

e. Reporting requirements in Section 2.1 E.1.e and f above shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

F. Silos subject to PSD limits:

Batch storage silo (ID No. ESDC119 (silo #7)) with baghouse (ID No. DC119 (silo#7))
Batch storage silo (ID No. ESDC120 (silo #8)) with baghouse (ID No. DC120 (silo#8))
Batch storage silo (ID No. ESDC121 (silo #9)) with two cartridge filters (ID Nos. DC121(silo#9) and DC122(silo#9)) in parallel
Batch storage silo (ID No. ESDC119 (silo #10)) with two baghouses (ID Nos. DC123 (silo#10) and DC152 (silo #10)) in parallel

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

Pollutant	Limits/Standards	Applicable Regulation
Visible Emissions	20 percent opacity each	15A NCAC 02D .0521
Particulate Matter	7.45 tons per consecutive 12-month period combined total	15A NCAC 02D .0530

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

a. Visible emissions from these sources **(ID Nos. ESDC119 (silo #7), ESDC120 (silo #8), ESDC121 (silo #9), and ESDC119 (silo #10))** 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.

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

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

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

c. To ensure compliance, once per calendar month the Permittee shall observe the emission points from these sources **(ID Nos. ESDC119 (silo #7), ESDC120 (silo #8), ESDC121 (silo #9), and ESDC119 (silo #10))** for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources 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 02D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 F.1.a above.

   The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if the required daily observations are not conducted as required or if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made.

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

d. The results of the monitoring required by Section 2.1 F.1.c shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

e. The Permittee shall submit a summary report of the monitoring required by Section 2.1 F.1.d above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July

30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. To comply with 15A NCAC 02D .0530 "Prevention of Significant Deterioration," Best Available Control Technology (BACT) limit for particulate matter emissions from these sources **(ID Nos. ESDC119 (silo #7), ESDC120 (silo #8), ESDC121 (silo #9), and ESDC119 (silo #10))** shall not exceed 7.45 tons per consecutive 12-month period combined total.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

c. Particulate matter emissions from these sources **(ID Nos. ESDC119 (silo #7), ESDC120 (silo #8), ESDC121 (silo #9), and ESDC119 (silo #10))** shall be controlled by their respective filter systems. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. an annual visual inspection of the system ductwork and material collection unit for leaks; and
   ii. an annual (for each 12-month period following the initial inspection) internal inspection of the filter system's structural integrity.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the ductwork and filter systems 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 filter systems; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if these records are not maintained.

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

e. The Permittee shall submit the results of any maintenance performed on the filter systems within 30 days of a written request by the DAQ.

f. The Permittee shall submit a summary report of monitoring, recordkeeping, or testing activities in Sections 2.1 F.2.c and 2.1 F.2.d above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

G. Five natural gas-fired in-line dryers (ID Nos. ES378, ES379, ES380, ES381, and ES382) each with one venturi scrubber (ID Nos. EC378, EC379, EC380, EC381, and EC382)

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons per hour, or $E = 55 \times P^{0.11} - 40$ for $P > 30$ tons per hour Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Sulfur Dioxide	2.3 pounds per million Btu each	15A NCAC 02D .0516
Visible Emissions	20 percent opacity each	15A NCAC 02D .0521
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 B.1**	15A NCAC 02D .1100
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 B.2**	15A NCAC 02Q .0711

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

a. Emissions of particulate matter from these sources **(ID Nos. ES378, ES379, ES380, ES381, and ES382)** shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ (for process rates less than or equal to 30 tons per hour), or
$E = 55 \times P^{0.11} - 40$ (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, combustion air and stoichiometric combustion oxygen are not considered as part of the process weight.

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

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

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

c. Particulate matter emissions from these sources **(ID Nos. ES378, ES379, ES380, ES381, and ES382)** shall be controlled by their respective wet scrubbers. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. a monthly external visual inspection of the system ductwork and material collection unit for leaks;
   ii. an annual inspection of the wet scrubbers structural integrity;
   iii. an annual inspection of spray nozzles and packing materials, and perform maintenance and repair when necessary to ensure proper operation of the wet scrubbers; and
   iv. an annual inspection, cleaning, and calibration of all associated instrumentation.

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

d. The Permittee shall install, operate, and maintain a scrubbing liquid flowmeter on each wet scrubber **(ID Nos. EC378, EC379, EC380, ES381, and ES382)**. The Permittee shall be deemed in noncompliance with 15A NCAC

02D .0515 if the scrubbing liquid flow rate for each wet scrubber is not maintained above the above prescribed limits or the scrubbing liquid flow meter is not installed and operated.

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

e. The results of any inspection and maintenance, and 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 scrubbing liquid flow rate for each scrubber once per calendar week at a minimum;
   iii. the results of each inspection;
   iv. the results of any maintenance performed on each wet scrubber; and
   v. any variance from manufacturer's recommendations, if any, and corrections made.

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

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

f. Within 30 days of a request from the DAQ, the Permittee shall submit a report of any maintenance performed on the wet scrubbers.

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

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

a. Emissions of sulfur dioxide from these sources **(ID Nos. ES378, ES379, ES380, ES381, and ES382)** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit in Section 2.1 G.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

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

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions when burning natural gas in these sources **(ID Nos. ES378, ES379, ES380, ES381, and ES382)**.

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

a. Visible emissions from these sources **(ID Nos. ES378, ES379, ES380, ES381, and ES382)** 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.

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

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

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

c. No monitoring/recordkeeping/reporting is required for visible emissions from these sources **(ID Nos. ES378, ES379, ES380, ES381, and ES382)**.

H. Binder mix room ventilation (ID No. ES97) with cartridge filter (ID No. 97EC)

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons per hour, or $E = 55 \times P^{0.11} - 40$ for $P > 30$ tons per hour Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 B.1**	15A NCAC 02D .1100
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 B.2**	15A NCAC 02Q .0711

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

a. Emissions of particulate matter from this source **(ID No. ES97)** shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ (for process rates less than or equal to 30 tons per hour), or
$E = 55 \times P^{0.11} - 40$ (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, combustion air and stoichiometric combustion oxygen are not considered as part of the process weight.

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

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

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

c. Particulate matter emissions from this source **(ID No. ES97)** shall be controlled by the cartridge filter. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
   ii. an annual (for each 12-month period following the initial inspection) internal inspection of the cartridge filter's structural integrity.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and cartridge filter 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 cartridge filter; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

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

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

e. The Permittee shall submit the results of any maintenance performed on the cartridge filter within 30 days of a written request by the DAQ.

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

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

a. Visible emissions from this source **(ID No. ES97)** 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.

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

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

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

c. To ensure compliance, once per calendar month the Permittee shall observe the emission points from this source **(ID No. ES97)** for any visible emissions above normal. 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 02D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 H.2.a, above.

   The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if the required daily observations are not conducted as required or if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made.

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

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

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

I. One caustic bushing cleaning system (ID No. ESCC96) with packed cross-flow scrubber (ID No. CDWS96)

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons per hour, or $E = 55 \times P^{0.11} - 40$ for $P > 30$ tons per hour Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible Emissions	20 percent opacity	15A NCAC 02D .0521

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

a. Emissions of particulate matter from this source **(ID No. ESCC96)** shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ (for process rates less than or equal to 30 tons per hour), or
$E = 55 \times P^{0.11} - 40$ (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, combustion air and stoichiometric combustion oxygen are not considered as part of the process weight.

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

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

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

c. Particulate matter emissions from this source **(ID No. ESCC96)** shall be controlled by the wet scrubber. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. a monthly external visual inspection of the system ductwork and material collection unit for leaks;
   ii. an annual inspection of spray nozzles and packing materials, and perform maintenance and repair when necessary to ensure proper operation of the wet scrubber; and
   iii. an annual inspection, cleaning, and calibration of all associated instrumentation.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the wet scrubber is not inspected and maintained.

d. The Permittee shall install, operate, and maintain a scrubbing liquid flowmeter on the wet scrubber. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the scrubbing liquid flow rate is not maintained above the above prescribed limit or the scrubbing liquid flow meter is not installed and operated.

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

e. The results of any inspection and maintenance, and 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 scrubbing liquid flow rate for wet scrubber once per calendar week at a minimum;
   iii. the results of each inspection;

iv. the results of any maintenance performed on wet scrubber; and
v. any variance from manufacturer's recommendations, if any, and corrections made.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

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

f. Within 30 days of a request from the DAQ, the Permittee shall submit a report of any maintenance performed on the wet scrubber.

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

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

a. Visible emissions from this source **(ID No. ESCC96)** 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.

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

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

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

c. No monitoring/recordkeeping/reporting is required for visible emissions from this source **(ID No. ESCC96)**.

 DRAFT

J. The following emergency generators:

Diesel-fired emergency generator (ID No. ESDG85)
Diesel-fired emergency generator (ID No. ESDG86)
Diesel-fired emergency generator (ID No. ESDG88A)
Diesel-fired emergency generator (ID No. ESDG88B)

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

Pollutant	Limits/Standards	Applicable Regulation
Sulfur Dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible Emissions	20 percent opacity each (**ID Nos. ESDG88A and ESDG88B**) 40 percent opacity each (**ID Nos. ESDG85 and ESDG86**)	15A NCAC 02D .0521
Nitrogen Oxides	40 tons per consecutive 12-month period	15A NCAC 02Q .0317 (PSD Avoidance)
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 B.1**	15A NCAC 02D .1100
Hazardous Air Pollutants	Operate as emergency-use engines	15A NCAC 02D .1111 40 CFR Part 63 Subpart ZZZZ

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

a. Emissions of sulfur dioxide from these sources **(ID Nos. ESDG85, ESDG86, ESDG88A, and ESDG88B)** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

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

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

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

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of diesel fuel in these sources **(ID Nos. ESDG85, ESDG86, ESDG88A, and ESDG88B)**.

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

a. Visible emissions from the emissions sources (**ID Nos. ESDG88A and ESDG88B**) 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 02D .0521(d)]

b. Visible emissions from the emissions sources (**ID Nos. ESDG85 and ESDG86**) 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 02D .0521(c)]

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

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

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

d. No monitoring/recordkeeping is required for visible emissions from the firing of diesel fuel for these sources **(ID Nos. ESDG85, ESDG86, ESDG88A, and ESDG88B)**.

3. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

c. To comply with this permit and avoid the applicability of 15A NCAC 02D .0530 "Prevention of Significant Deterioration," as requested by the Permittee, nitrogen oxide emissions from these sources **(ID Nos. ESDG85, ESDG86, ESDG88A, and ESDG88B)** shall not exceed 40 tons per consecutive 12-month period.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 J.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

c. In order to ensure compliance with the above limit, each emergency generator shall be limited to no more than 1,000 hours of operation per consecutive 12-month period. The Permittee shall record monthly hours of operation for each emergency generator. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the above records are not kept or if the hours of operation for each emergency generator exceed 1,000 hours per consecutive 12-month period.

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

d. The Permittee shall submit a semiannual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
   i. the monthly hours of operation of each generator for the previous 17 months. The total hours of operation for each generator must be calculated for each of the 12-month periods over the previous 17 months;
   ii. the monthly nitrogen oxide emissions for the previous 17 months. The total nitrogen oxide emissions must be calculated for each of the 12-month periods over the previous 17 months.
   iii. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability [40 CFR63.6585, 40 CFR 63.6590(a)(1)(i)]

a. For these emission source(s) (existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart ZZZZ "National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines" and Subpart A "General Provisions."

Definitions and Nomenclature

b. For the purposes of Section 2.1 J.4, the definitions and nomenclature contained in 40 CFR 63.6675 shall apply. [40 CFR 63.6675]

Emergency Engine Compliance Requirements [15A NCAC 02Q .0508(f)]

c. For the purposes of Section 2.1 J.4, the Permittee shall only operate these sources as emergency stationary reciprocating internal combustion engines (RICE), which is defined as any stationary reciprocating internal combustion engine that meets all of the criteria in Sections Section 2.1 J.4.c.i and ii, below. All emergency stationary RICE must comply with the requirements specified in Section 2.1 J.4.d below, in order to be considered emergency stationary RICE. If an engine does not comply with the requirements specified in Section 2.1 J.4.d below, then it is not considered to be an emergency stationary RICE.
   i. The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc.

ii. The stationary RICE is operated under limited circumstances for situations not included in Section 2.1 J.4.c.i above, as specified in Section 2.1 J.4.d, below.

[40 CFR 63.6675]

d. In order for the engine to be considered an emergency stationary RICE as defined in Section 2.1 J.4.c above, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described Section 2.1 J.4.d.i through iii below, is prohibited.
   i. There is no time limit on the use of emergency stationary RICE in emergency situations.
   ii. The Permittee may operate the emergency stationary RICE for any combination of the purposes specified in Section 2.1 J.4.d.ii.(A) below, for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Section 2.1 J.4.d.iii, below, counts as part of the 100 hours per calendar year allowed by this paragraph.
      (A) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
   iii. Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in Section 2.1 J.4.d.ii above. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 CFR 63.6640(f)]

Stationary RICE subject to limited requirements [40 CFR 63.6590(b)(3)]

e. Pursuant to 40 CFR 63.6590(b)(3)(iii), these sources do not have to meet the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A, including initial notification requirements. [40 CFR 63.6590(b)(3)]

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

f. To ensure compliance with Section 2.1 J.4.c and d above, the Permittee shall maintain the following records. The Permittee shall record:
   i. the hours for each engine spent in emergency operation, including what classified the operation as emergency;
   ii. the hours for each engine spent for non-emergency operation; and
   iii. the dates of operation of each engine.

   The records shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these records are not maintained.

K. The following boilers:

One natural gas/No. 2 fuel oil fired boiler (ID No. ESB83A)
One natural gas/No. 2 fuel oil fired boiler (ID No. ESB83B)
One natural gas fired boiler (ID No. ESB83C)
Propane-fired propane vaporizer (ID No. ESVAP1)

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	0.40 pound per million Btu heat input for ESB83A 0.33 pound per million Btu heat input for ESB83B 0.39 pound per million Btu heat input for ESB83C 0.324 pound per million Btu heat input for ESVAP1	15A NCAC 02D .0503
Sulfur Dioxide	2.3 pounds per million Btu heat input each	15A NCAC 02D .0516
Visible Emissions	20 percent opacity each	15A NCAC 02D .0521
Hazardous Air Pollutants	**See Section 2.2 A.1**	15A NCAC 02D .1111 40 CFR Part 63 Subpart DDDDD
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 B.1**	15A NCAC 02D .1100

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

a. Emissions of particulate matter from the combustion of natural gas, No. 2 fuel oil, and propane, that are discharged from these sources **(ID Nos. ESB83A, ESB83B, ESB83C, and ESVAP1)** into the atmosphere shall not exceed:
   i. 0.40 pound per million Btu heat input each for ESB83A
   ii. 0.33 pound per million Btu heat input each for ESB83B;
   iii. 0.39 pound per million Btu heat input for ESB83C;
   iv. 0.324 pound per million Btu heat input for ESVAP1.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 K.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

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

c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas and No. 2 fuel oil in these sources **(ID Nos. ESB83A, ESB83B, ESB83C, and ESVAP1)**.

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

a. Emissions of sulfur dioxide from these sources **(ID Nos. ESB83A, ESB83B, ESB83C, and ESVAP1)** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 K.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

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

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions when burning natural gas, propane, or No. 2 fuel oil in these sources **(ID Nos. ESB83A, ESB83B, ESB83C, and ESVAP1)**.

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

a. Visible emissions from these sources **(ID Nos. ESB83A, ESB83B, ESB83C, and ESVAP1)** 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.

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

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

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

c. No monitoring/recordkeeping/reporting is required for visible emissions when burning natural gas, propane, or No. 2 fuel oil from these sources **(ID Nos. ESB83A, ESB83B, ESB83C, and ESVAP1)**.

L. The following fiberglass drying ovens:

Table 2.1 O

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-7, ES-17, ES-18	Three natural gas-fired fiberglass drying ovens (3.4 million Btu per hour maximum heat input, each)	NA	NA
ES-6, ES-12 ES-19, ES-20 ES-21	Five natural gas-fired fiberglass drying ovens (1.5 million Btu per hour maximum heat input, each)	NA	NA
ES-14a, ES-14b, ES-14c, ES-15a, ES-15b, ES-15c	Six natural gas-fired fiberglass drying ovens (0.92 million Btu per hour maximum heat input, each)	NA	NA
ES-D1 through ES-D4	Four single lane dielectric fiberglass drying oven (1,800 pounds per hour throughput capacity, each)	NA	NA

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons per hour, or $E = 55 \times P^{0.11} - 40$ for $P > 30$ tons per hour Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour **Process stacks only**	15A NCAC 02D .0515
Particulate Matter	0.324 pounds per million Btu heat input each **Combustion stacks only**	15A NCAC 02D .0503
Sulfur Dioxide	2.3 pounds per million Btu each **Combustion stacks only**	15A NCAC 02D .0516
Visible Emissions	40 percent opacity each for nine drying ovens	15A NCAC 02D .0521
	20 percent opacity each for 17 drying ovens	
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 B.1**	15A NCAC 02D .1100
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 B.2**	15A NCAC 02Q .0711
Hazardous Air Pollutants	**(ID Nos. ES-6, ES-7, ES-12, ES-17, ES-18, ES-19, ES-20, ES-21, ES-14a, ES-14b, ES-14c, ES-15a, ES-15b, and ES-15c)** **See Section 2.2 A.1**	15A NCAC 02D .1111 40 CFR Part 63 Subpart DDDDD

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

a. Emissions of particulate matter from the process stacks of these sources listed in Table 2.1 O shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ (for process rates less than or equal to 30 tons per hour), or
$E = 55 \times P^{0.11} - 40$ (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, combustion air and stoichiometric combustion oxygen are not considered as part of the process weight.

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

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

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

c. The Permittee shall maintain production records sufficient to determine process weight rate and shall make these records available to a DAQ authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the production records are not maintained.

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

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

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

a. Emissions of sulfur dioxide from the combustion of natural gas-fired fiberglass drying ovens listed in Table 2.1 O (combustion stacks) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 L.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

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

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas in these sources listed in Table 2.1 O (combustion stacks).

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

a. Visible emissions from natural gas-fired fiberglass drying ovens (combustion and process stacks) (**ID Nos. ES-6, ES-7, ES-12 and ES-17 through ES-21**) 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.

b. Visible emissions from natural gas-fired fiberglass drying ovens (combustion and process stacks) (**ID Nos. ES-14a, ES-14b, ES-14c, ES-15a, ES-15b, and ES-15c**) and dielectric fiberglass drying ovens (process stacks) (**ID Nos. ES-D1 through ES-D4**) 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.

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

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

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

d. To ensure compliance, once per calendar month the Permittee shall observe the emission points from the drying ovens (process stacks) for any visible emissions above normal. The monthly observation must be made for each

month of the calendar year period to ensure compliance with this requirement. If visible emissions from the drying ovens 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 sources in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Sections 2.1 L.3.a or b above.

The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if the required monthly observations are not conducted as required or if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made.

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

e. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

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

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

g. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas in these sources (combustion stacks).

4. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

a. Emissions of particulate matter from the combustion of natural gas, that are discharged from the combustion stacks of these sources into the atmosphere shall not exceed 0.32 pound per million Btu heat input each from all other ovens listed in Table 2.1 L.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 L.4.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

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

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

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M. The following emergency engines:

Table 2.1 M

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ESDP366	Process Water (Return), Emergency Diesel fuel-fired Pump 524 (115 BHP)	NA	NA
ESDP89	Process Water (Supply) Emergency Diesel fuel-fired Pump 524 (325 BHP)	NA	NA
ESDP90	Process Water (Supply) Emergency Diesel fuel-fired Pump 525 (290 BHP)	NA	NA
ESDP91	Process Water (Return) Emergency Diesel fuel-fired Pump 525 (115 BHP)	NA	NA
ESDP92	Process Water GM Emergency Diesel fuel-fired Pump Loop 1&2 (Supply) (250 BHP)	NA	NA
ESDP94	Process Water (Return) Emergency Diesel fuel-fired Pump 526 (125 BHP)	NA	NA
ES-FP1	Emergency Diesel fuel-fired Fire Pump (250 BHP)	NA	NA
ES-CAEB524	Emergency Natural Gas-fired Blower 524 (150 BHP)	NA	NA
ES-CAEB525	Emergency Natural Gas-fired Blower 525 (150 BHP)	NA	NA
ES-CAEB526	Emergency Natural Gas-fired Blower 526 (150 BHP)	NA	NA

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

Pollutant	Limits/Standards	Applicable Regulation
Sulfur Dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Toxic Air Pollutants	**See Section 2.2 B.1** **State-enforceable only** **(ESDP-89 through -94 and ESDP 366 only)**	15A NCAC 02D .1100
Toxic Air Pollutants	**See Section 2.2 B.2** **State-enforceable only** **(ESDP-89 through -94 and ESDP 366 only)**	15A NCAC 02Q .0711
Hazardous Air Pollutants	Work practice and recordkeeping requirements.	15A NCAC 02D .1111 40 CFR Part 63 Subpart ZZZZ

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

a. Emissions of sulfur dioxide from these sources listed in Table 2.1 M shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

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

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

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

c. No monitoring/recordkeeping is required for sulfur dioxide emissions from the firing of diesel fuel oil for these sources listed in Table 2.1 M.

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

a. Visible emissions from sources listed in Table 2.1 M 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.

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

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

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

c. No monitoring/recordkeeping is required for visible emissions from the firing of diesel fuel oil for these sources listed in Table 2.1 M.

3. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability [40 CFR 63.6585, 40 CFR 63.6590(a)(1)(ii)]

a. For these emission sources listed in Table 2.1 M (existing emergency spark ignition (SI) and compression ignition (CI) stationary reciprocating internal combustion engines (RICE) with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart ZZZZ "National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines" and Subpart A "General Provisions."

Definitions and Nomenclature

b. For the purposes of this permit condition, the definitions and nomenclature contained in 40 CFR 63.6675 shall apply.

Applicability Date [40 CFR 63.6595(a)(1)]

c. The Permittee shall comply with the applicable emission limitations, operating limitations, and other requirements for the CI engines no later than May 3, 2013 and for the SI engines no later than October 19, 2013.

Notifications [40 CFR 63.6645(a)(5)]

d. The Permittee has no notification requirements.

General Provisions [40 CFR 63.6665]

e. The Permittee shall comply with the General Provisions as applicable pursuant to Table 8 of 40 CFR 63 Subpart ZZZZ

Operating and Maintenance Requirements [15A NCAC 02Q .0508(b)]

f. During periods of startup of the IC engine, the Permittee shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63.6602 and 40 CFR 63.6625(h)]

g. Except during periods of startup of the IC engine, the Permittee shall:
   i. Change oil and filter every 500 hours of operation or annually, whichever comes first;
   ii. A. for the CI engines, inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
   B. for the SI engines, inspect spark plugs every 1,000 hours of operation or annually, whichever comes first; and
   iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

   [40 CFR 63.6602, Table 2C]

h. The Permittee shall have the option to utilize the oil analysis program as described in 40 CFR 63.6625(i) in order to extend the specified oil change requirement in Section 2.1 M.3.g. [40 CFR 63.6602, Table 2C, 40 CFR 63.6625(i)]

i. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Section 2.1 M.3.g, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable. [40 CFR 63.6602, Table 2C]

j. The Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b)]

k. The Permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e) and 40 CFR 63.6640(a), Table 6]

l. In order for the engine to be considered an emergency stationary RICE as defined in Section 2.1 M.3.b, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs i through iii below, is prohibited.
   i. There is no time limit on the use of emergency stationary RICE in emergency situations.
   ii. The Permittee may operate the emergency stationary RICE for any combination of the purposes specified in paragraph (A) below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph iii below counts as part of the 100 hours per calendar year allowed by this paragraph ii.
      (A) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
   iii. Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph ii above. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
   [40 CFR 63.6640(f)]

m. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in Sections 2.1 M.3.e through 2.1 M.3.l are not met.

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

n. The Permittee shall install a non-resettable hour meter on the IC engine if one is not already installed. [40 CFR 63.6625(f)]

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

o. The Permittee shall keep the following:
   i. a copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv).[40 CFR 63.6655(a)(1)]
   ii. records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(2)]
   iii. records of all required maintenance performed on the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(4)]

iv. records of actions taken during periods of malfunction to minimize emissions in accordance with Section 2.1 M.3.j, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a)(5)]
v. records of the maintenance conducted on the RICE pursuant to Section 2.1 M.3.k. [40 CFR 63.6655(d) and (e)]
vi. records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40 CFR 63.6655(f)]
vii. each record in a form suitable and readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). [40 CFR 63.6660(a), (b), (c)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements are not met.

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

p. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of noncompliance must be clearly identified. [40 CFR 63.6640(b), (e), and 40 CFR 63.6650(f)] The summary report shall also include any reporting required under Section 2.1 M.3.i, as necessary. [40 CFR 63.6602, Table 2C] The Permittee shall be deemed in noncompliance with the 15A NCAC 02D .1111 if these requirements are not met.

DRAFT

N. Remote Wet Cut Lines (RWC):

Table 2.1 N.

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ESWC367a	Remote Wet Cut Line No. 1 (5,000 pounds per hour dry nominal production rate) including a natural gas-fired dryer (3.5 million Btu per hour maximum heat input rate)	CDWC367	Venturi scrubber (80 gallons per minute minimum liquid injection rate)
ESWC368a	Remote Wet Cut Line No. 2 (5,000 pounds per hour dry nominal production rate) including a natural gas-fired dryer (3.5 million Btu per hour maximum heat input rate)	CDWC368	Venturi scrubber (80 gallons per minute minimum liquid injection rate)
ESWC369a	Remote Wet Cut Line No. 3 (5,000 pounds per hour dry nominal production rate) including a natural gas-fired dryer (3.5 million Btu per hour maximum heat input rate)	CDWC369	Venturi scrubber (80 gallons per minute minimum liquid injection rate)
ESWCL370	Remote Wet Cut Line No. 4 (4,500 pounds per hour dry nominal production rate) including a natural gas-fired dryer (3.5 million Btu per hour maximum heat input rate)	CDWC370	Venturi scrubber (80 gallons per minute minimum liquid injection rate each)
ESWCL371	Remote Wet Cut Line No. 5 (4,500 pounds per hour dry nominal production rate) including a natural gas-fired dryer (3.5 million Btu per hour maximum heat input rate)	CDWC371	Venturi scrubber (80 gallons per minute minimum liquid injection rate each)

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons per hour, or $E = 55 \times P^{0.11} - 40$ for $P > 30$ tons per hour Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Sulfur Dioxide	2.3 pounds per million Btu heat input each	15A NCAC 02D .0516
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Toxic Air Pollutants	**See Section 2.2 B.1** **State-enforceable only**	15A NCAC 02D .1100
Toxic Air Pollutants	**See Section 2.2 B.2** **State-enforceable only**	15A NCAC 02Q .0711

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

a. Emissions of particulate matter from the sources in Table 2.1 N shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ (for process rates less than or equal to 30 tons per hour), or
$E = 55 \times P^{0.11} - 40$ (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, combustion air and stoichiometric combustion oxygen are not considered as part of the process weight.

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

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

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

c. Particulate matter emissions from the sources in Table 2.1 N shall be controlled as described in Table 2.1 N. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. a monthly visual inspection of the scrubbers and associated systems' ductwork for leaks;
   ii. an annual (for each 12-month period following the initial inspection) internal inspection of each scrubber's structural integrity.
   iii. an annual inspection of spray nozzles, and perform maintenance and repair when necessary to ensure proper operation of the scrubbers; and
   iv. an annual inspection, cleaning, and calibration of all associated instrumentation.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and scrubbers are not inspected and maintained.
d. The Permittee shall install, operate, and maintain a scrubbing liquid flowmeter on each scrubber. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the scrubbing liquid flow rate for each scrubber is not maintained above the prescribed limits in Table 2.1 N or the scrubbing liquid flow meter is not installed and operated.
e. 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 scrubbing liquid flow rate for each scrubber once a week at a minimum
   iii. the results of each inspection;
   iv. the results of any maintenance performed on the wet scrubbers; and
   v. any variance from manufacturer's recommendations, if any, and corrections made.

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

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

f. The Permittee shall submit the results of any maintenance performed on the scrubbers in Table 2.1 N within 30 days of a written request by the DAQ.
g. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

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

a. Emissions of sulfur dioxide from the sources in Table 2.1 N shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 N.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

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

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions when burning natural gas in the sources in Table 2.1 N.

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

a. Visible emissions from the sources in Table 2.1 N 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.

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

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

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

c. No monitoring/recordkeeping/reporting is required for visible emissions from the sources in Table 2.1 N.

O. Process water (supply) emergency diesel fuel-fired pump 526 (ID No. ESDP93)

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

Pollutant	Limits/Standards	Applicable Regulation
Sulfur Dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible Emissions	20% opacity	15A NCAC 02D .0521
Toxic Air Pollutants	**See Section 2.2 B.1** **State-enforceable only**	15A NCAC 02D .1100
Toxic Air Pollutants	**See Section 2.2 B.2** **State-enforceable only**	15A NCAC 02Q .0711
Hazardous Air Pollutants	Work practice and recordkeeping requirements.	15A NCAC 02D .1111 40 CFR Part 63 Subpart ZZZZ
Various	**See Section 2.1 O.1**	15A NCAC 02D .0524 40 CFR Part 60 Subpart IIII

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

a. Emissions of sulfur dioxide from this source **(ID No. ESDP93)** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

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

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

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

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of diesel fuel in this source **(ID No. ESDP93)**.

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

a. Visible emissions from this source **(ID No. ESDP93)** 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.

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

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

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

d. No monitoring/recordkeeping is required for visible emissions from the firing of diesel fuel oil for this source **(ID No. ESDP93)**.

3. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

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

a. For this engine (**ID No. ESDP93;** *i.e., new emergency engine*) the Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, record keeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 02D .0524 “New Source Performance Standards” (NSPS) as promulgated in 40 CFR Part 60 Subpart IIII, including Subpart A "General Provisions" for this source:

General Provisions [15A NCAC 02Q .0508(f)]

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

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

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

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

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

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

e. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 O.3.c and d above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

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

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

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

g. The Permittee shall:
   i. operate and maintain the engine and control devices according to the manufacturer's emission related-written instructions over the entire life of the engine;
   ii. change only those emission-related settings that are permitted by the manufacturer; and
   iii. meet the requirements of 40 CFR 89, 94 and/or 1068 as applicable.
   [40 CFR 60.4206 and 60.4211(a)]

h. The Permittee shall comply with the emission standards in Section 2.1 O.3.c by purchasing an engine certified to the emission standards in Section 2.1 O.3.c. The engine shall be installed and configured according to the manufacturer's emission-related specifications. [40 CFR 60.4211(c)]

i. In order for the engine to be considered an emergency stationary ICE under this condition, any operation other than emergency operation, maintenance and testing, and operation in non- emergency situations for 50 hours per year, as described below, is prohibited.
   i. There is no time limit on the use of emergency stationary ICE in emergency situations.
   ii. The Permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraph (A) below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (iii) of this condition counts as part of the 100 hours per calendar year allowed by this paragraph (ii).
      (A) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
   iii. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (ii) above. Except as provided in paragraph (A) below, the 50 hours per calendar year for non- emergency situations cannot be used for peak shaving or non-emergency

demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(A) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
  (1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
  (2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
  (3) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
  (4) The power is provided only to the facility itself or to support the local transmission and distribution system.
  (5) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[40 CFR 60.4211(f)]

j. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the requirements in Sections 2.1 O.3.f through i are not met.

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

k. The results of inspections and maintenance made pursuant to Section 2.1 O.3.g shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  i. the date and time of each recorded action;
  ii. the results of each inspection;
  iii. the results of any maintenance performed on the engine;
  iv. any variance from manufacturer's recommendations, if any, and corrections made;
  v. the hours of operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time; [40 CFR 60.4214(b)];
  vi. if a PM filter is used, records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached [40 CFR60.4214(c)]
  vii. documentation from the manufacturer that the engine is certified to meet the emission standards in Section 2.1 O.1.c.

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

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

l. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of noncompliance with the requirements of this permit shall be clearly identified.

m. If the Permittee owns or operates an emergency stationary CI RICE with a maximum engine power more than 100 HP that operates for the purposes specified in Section 2.1 O.3.i.iii(A) above, the Permittee shall submit an annual report according to the requirements at 40 CFR 60.4214(d). This report must be submitted to the Regional Supervisor and the EPA. [40 CFR 60.4214(d)]

4. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

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

a. For this source (stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions) the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR Part 63, Subpart ZZZZ, "National Emission

Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines" and Subpart A "General Provisions."

Stationary RICE subject to Regulations under 40 CFR Part 60 [15A NCAC 02Q. 0508(f)]

b. Pursuant to 40 CFR 63.6590(c)(6), these sources must meet the requirements of 40 CFR Part 63 Subpart ZZZZ and Subpart A by meeting the requirements of 40 CFR part 60 subpart IIII. No further requirements apply for this engine under 40 CFR 63 Subpart ZZZZ and Subpart A. If these requirements are not met, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111.

 DRAFT

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

A. Facility-wide emission sources subject to 40 CFR Part 63 Subpart DDDDD:

Table 2.2 A

Emission Source ID No.	Emission Source Description
ESB83A **MACT DDDDD**	One natural gas/No. 2 fuel oil fired boiler (25.1 million Btu per hour nominal heat input rate)
ESB83B **MACT DDDDD**	One natural gas/No. 2 fuel oil fired boiler (16.33 million Btu per hour nominal heat input rate)
ESB83C **MACT DDDDD**	Natural gas-fired boiler (0.84 million Btu per hour heat input rate)
ESVAP1 **MACT DDDDD**	Propane-fired propane vaporizer (4.2 million Btu per hour heat input rate)
ES-7, ES-17, ES-18 **MACT DDDDD**	Three natural gas-fired fiberglass drying ovens (3.4 million Btu per hour maximum heat input, each)
ES-6, ES-12, ES-19, ES-20, ES-21 **MACT DDDDD**	Five natural gas-fired fiberglass drying ovens (1.5 million Btu per hour maximum heat input, each)
ES-14a, ES-14b, ES-14c, ES-15a, ES-15b, ES-15c, **MACT DDDDD**	Six natural gas-fired fiberglass drying ovens (0.92 million Btu per hour maximum heat input, each)

1. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

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

a. For the boilers and ovens listed in Table 2.2 A (*i.e., sources designed to burn gas 1 fuels (with oil during curtailment), with no oxygen trim*), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR Part 63, Subpart DDDDD "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" and Subpart A "General Provisions."

Definitions and Nomenclature

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

Operating Restriction [15A NCAC 02Q .0508(b)]

c. For the natural gas/No. 2 fuel oil-fired boilers **(ID Nos. ES83A and ES83B)**, the Permittee shall only burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, and during periods of gas curtailment or gas supply interruptions of any duration.

40 CFR Part 63 Subpart A General Provisions

d. The Permittee shall comply with the requirements of 40 CFR Part 63, Subpart A General Provisions according to the applicability of Subpart A to such sources as identified in Table 10 to 40 CFR Part 63, Subpart DDDDD. [40 CFR 63.7565]

Compliance Date [40 CFR 63.7495]

e. The Permittee shall comply with the applicable requirements:
   i. For new or reconstructed boilers, upon startup of the boilers.
   ii. For existing boilers, the Permittee shall complete the initial tune up and the one-time energy assessment no later than May 20, 2019. [40 CFR 63.7510(e), 63.56(b)] *These requirements have been met.*

Notifications [40 CFR 63.7545]

f. The following notification requirements apply:

i. For existing boilers, the Permittee shall submit a Notification of Compliance Status. The notification shall be signed by a responsible official and submitted by July 19, 2019. [40 CFR 64.7545(e). 63.7530(e) and (f)] *This requirement has been met.*

ii. The Permittee shall submit a notification of intent to fire an alternative fuel (i.e., fuel oil) within 48 hours of the declaration of each period of natural gas curtailment or supply interruption. The notification shall include the information in 40 CFR 63.7545(f). [40 CFR 63.7545(f)] The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if this notification requirement is not met.

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

g. The following work practice standards apply:

i. For each subject source, the Permittee shall conduct a tune-up of the boiler according to the schedule below:
(A) For subject sources with capacities less than 5 million Btu per hour, the tune-up shall be conducted every five years.
(B) For subject sources with capacities between 5 and 10 million Btu per hour, the tune-up shall be conducted every two years.
(C) For subject sources with capacities greater than 10 million Btu per hour, the tune-up shall be conducted every year.
[40 CFR 63.7500(a), 63.7540(a)(10), (11), and (12)]

ii. The tune-up shall be conducted while burning the type of fuel (or fuels in case of units that routinely burn a mixture) that provided the majority of the heat input to the boiler or process heater over the 12 months prior to the tune-up as specified below.
(A) As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The Permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown. For boilers with capacities less than 5 million Btu per hour, the Permittee may also perform the burner inspection during the next unscheduled unit shutdown, but the burner must be inspected at least once every 72 months.
(B) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
(C) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the Permittee may delay the inspection until the next scheduled unit shutdown).
(D) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject.
(E) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
[40 CFR 63.7500(a), 63.7540(a)(10), (11), and (12)]

iii. For new or reconstructed subject sources, the initial tune-up must be conducted within the following time periods following the initial startup of the source:
(A) 61 months for subject sources with heat input capacities less than 5 million Btu per hour;
(B) 25 months for subject sources with heat input capacities between 5 and 10 million Btu per hour; and
(C) 13 months for subject sources with heat input capacities greater than 10 million Btu per hour.
[40 CFR 63.7515(d)]

iv. Each subsequent tune-up shall be conducted no more than the below time periods following the previous tune-up:
(A) 61 months for subject sources with heat input capacities less than 5 million Btu per hour;
(B) 25 months for subject sources with heat input capacities between 5 and 10 million Btu per hour; and
(C) 13 months for subject sources with heat input capacities greater than 10 million Btu per hour.
[40 CFR 63.7515(d)]

v. If the subject source is not operating on the required date for a tune-up, the tune-up shall be conducted within 30 calendar days of startup. [40 CFR 63.7540(a)(13), 63.7515(g)]

vi. At all times, the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.7500(a)(3)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these work practice requirements are not met.

Energy Assessment Requirements [15A NCAC 02Q .0508(f)]

h. The Permittee shall have a one-time energy assessment performed by a qualified energy assessor. [40 CFR 63.7500(a)(1), Table 3 to 40 CFR Part 63, Subpart DDDDD] *This requirement has been met.*

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

i. The following recordkeeping requirements apply. The Permittee shall:
   i. keep a copy of each notification and report submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status, or semiannual compliance report that has been submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.7555(a)(1)]
   ii. maintain on-site and submit, if requested by the DAQ, an annual report containing the information in paragraphs (A) through (C) below:
      (A) the concentrations of carbon monoxide in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the source;
      (B) a description of any corrective actions taken as a part of the tune-up; and
      (C) the type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
      [40 CFR 63.7540(a)(10)(vi)]
   iii. keep the associated records for Section 2.2 B.1.g through h.
   iv. keep the following records, pursuant to 15A NCAC 02Q .0508(f) and 40 CFR 63.7555(h):
      (A) types of fuels combusted during periods of gas curtailment, gas supply interruption, periodic testing maintenance and operator training;
      (B) date and duration of periods of gas curtailment and gas supply interruption; and
      (C) date and duration of periods of testing, maintenance and operator training while combusting liquid fuel.
   v. keep:
      (A) records in a form suitable and readily available for expeditious review;
      (B) each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record; and
      (C) each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee can keep the records offsite for the remaining 3 years.
      [40 CFR 63.7560, 63.10(b)(1)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these recordkeeping requirements are not met or if the records show an exceedance of the operating restriction given in Section 2.2 B.1.c above.

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

j. The following reporting requirements apply:
   i. The Permittee shall submit compliance reports to the DAQ based on the following schedule:
      (A) a five-year basis for subject sources with heat input capacities less than 5 million Btu per hour;
      (B) a two-year basis for subject sources with heat input capacities between 5 and 10 million Btu per hour; and
      (C) an annual basis for subject sources with heat input capacities greater than 10 million Btu per hour.
      The report shall cover the period from January 1 to December 31 for each covered year. The Permittee shall submit the report postmarked on or before January 30 for the preceding reporting period. [40 CFR 63.7550(a) and (b)]
   ii. The compliance report shall also be submitted electronically via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX; https://cdx.epa.gov). The Permittee shall use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, the Permittee shall submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (http://www.epa.gov/ttn/chief/cedri/index.html), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the Permittee shall submit the report to the EPA Administrator at the appropriate address listed in 40 CFR 63.13. The Permittee shall begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. [40 CFR 63.7550(h)(3)]

   iii. The compliance report shall contain the following information:

(A) company name and address;
(B) process unit information, emissions limitations, and operating parameter limitations;
(C) date of report and beginning and ending dates of the reporting period;
(D) date of the most recent tune-up for each unit required according to Section 2.2 B.1.g. Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown; and
(E) 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.

[40 CFR 63.7550(a) and (c), Table 9 to 40 CFR Part 63, Subpart DDDDD]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these reporting requirements are not met.

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B. Facility-wide

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

Pollutant	Limits/Standards	Applicable Regulation
Toxic Air Pollutants	Acceptable Ambient Levels **State-enforceable only**	15A NCAC 02D .1100
Toxic Air Pollutants	Toxic Pollutant Exemption Rates **State-enforceable only**	15A NCAC 02Q .0711
Odors	Odorous emissions must be controlled. **State-enforceable only**	15A NCAC 02D .1806

State-enforceable only

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

a. The Permittee has previously submitted a toxic air pollutant dispersion modeling analysis (July 9, 2020) for the facility's toxic air pollutant emissions as listed in the below tables (in units of pounds per hour). The modeling analysis was reviewed and approved by the AQAB on July 17, 2020. Placement of the emission sources, configuration of the emission points, and operation of the sources shall be in accordance with the submitted dispersion modeling analysis and should reflect any changes from the original analysis submittal as outlined in the AQAB review memo.

Monitoring/Recordkeeping [15A NCAC 02D .0611]

b. The Permittee shall record, retain on site (in written or electronic format) and make available to an authorized representative upon request, records sufficient to show that the permitted emission rates above are not exceeded.

Reporting [15A NCAC 02D .0611]

c. The Permittee shall submit a summary report, acceptable to the Regional Air Quality Supervisor, 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.

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Table 2.2 B.1

Emission Source ID No.	Model ID	Source Description	Acetic Acid	Arsenic	Benzene	Beryllium	Cadmium	Ethylene Oxide	Fluoride	Formaldehyde
ES-6	ES06A	Drying oven #6a	7.720E-01	1.150E-05	4.660E-04	2.420E-05	3.260E-05	2.730E-04	--	1.730E-02
	ES06B	Drying oven #6b	7.720E-01	1.150E-05	4.660E-04	2.420E-05	3.260E-05	2.730E-04	--	1.730E-02
	ES06C	Drying oven #6c	7.720E-01	1.150E-05	4.660E-04	2.420E-05	3.260E-05	2.730E-04	--	1.730E-02
ES-7	ES07	Drying oven #7	7.720E-01	7.840E-05	3.170E-03	1.650E-04	2.220E-04	2.730E-04	--	1.170E-01
ES-8	ES08	Drying oven #8	7.720E-01	7.840E-05	3.170E-03	1.650E-04	2.220E-04	2.730E-04	--	1.170E-01
ES-12	ES12A	Drying oven #12	7.720E-01	6.920E-06	2.790E-04	1.450E-05	1.960E-05	2.730E-04	--	1.050E-02
	ES12B	Drying oven #12	7.720E-01	6.920E-06	2.790E-04	1.450E-05	1.960E-05	2.730E-04	--	1.050E-02
	ES12C	Drying oven #12	7.720E-01	6.920E-06	2.790E-04	1.450E-05	1.960E-05	2.730E-04	--	1.050E-02
	ES12D	Drying oven #12	7.720E-01	6.920E-06	2.790E-04	1.450E-05	1.960E-05	2.730E-04	--	1.050E-02
	ES12E	Drying oven #12	7.720E-01	6.920E-06	2.790E-04	1.450E-05	1.960E-05	2.730E-04	--	1.050E-02
ES-14a	ES14A	Drying oven #14a	7.720E-01	2.120E-05	8.570E-04	4.460E-05	6.000E-05	2.730E-04	--	3.180E-02
ES-14b	ES14B	Drying oven #14b	7.720E-01	2.120E-05	8.570E-04	4.460E-05	6.000E-05	2.730E-04	--	3.180E-02
ES-14c	ES14C	Drying oven #14c	7.720E-01	2.120E-05	8.570E-04	4.460E-05	6.000E-05	2.730E-04	--	3.180E-02
ES-15a	ES15A	Drying oven #15a	7.720E-01	2.120E-05	8.570E-04	4.460E-05	6.000E-05	2.730E-04	--	3.180E-02
ES-15b	ES15B	Drying oven #15b	7.720E-01	2.120E-05	8.570E-04	4.460E-05	6.000E-05	2.730E-04	--	3.180E-02
ES-15c	ES15C	Drying oven #15c	7.720E-01	2.120E-05	8.570E-04	4.460E-05	6.000E-05	2.730E-04	--	3.180E-02
ES-17	ES17	Drying oven #17	7.720E-01	7.840E-05	3.170E-03	1.650E-04	2.220E-04	2.730E-04	--	1.170E-01
ES-18	ES18	Drying oven #18	7.720E-01	7.840E-05	3.170E-03	1.650E-04	2.220E-04	2.730E-04	--	1.170E-01
ES-19	ES19A	Drying oven #19	7.720E-01	1.150E-05	4.660E-04	2.420E-05	3.260E-05	2.730E-04	--	1.730E-02
	ES19B	Drying oven #19	7.720E-01	1.150E-05	4.660E-04	2.420E-05	3.260E-05	2.730E-04	--	1.730E-02
	ES19C	Drying oven #19	7.720E-01	1.150E-05	4.660E-04	2.420E-05	3.260E-05	2.730E-04	--	1.730E-02
ES-20	ES20A	Drying oven #20	7.720E-01	6.920E-06	2.790E-04	1.450E-05	1.960E-05	2.730E-04	--	1.050E-02
	ES20B	Drying oven #20	7.720E-01	6.920E-06	2.790E-04	1.450E-05	1.960E-05	2.730E-04	--	1.050E-02
	ES20C	Drying oven #20	7.720E-01	6.920E-06	2.790E-04	1.450E-05	1.960E-05	2.730E-04	--	1.050E-02
	ES20D	Drying oven #20	7.720E-01	6.920E-06	2.790E-04	1.450E-05	1.960E-05	2.730E-04	--	1.050E-02
	ES20E	Drying oven #20	7.720E-01	6.920E-06	2.790E-04	1.450E-05	1.960E-05	2.730E-04	--	1.050E-02
ES-21	ES21A	Drying oven #21	7.720E-01	8.640E-06	3.490E-04	1.820E-05	2.450E-05	2.730E-04	--	1.300E-02
	ES21B	Drying oven #21	7.720E-01	8.640E-06	3.490E-04	1.820E-05	2.450E-05	2.730E-04	--	1.300E-02
	ES21C	Drying oven #21	7.720E-01	8.640E-06	3.490E-04	1.820E-05	2.450E-05	2.730E-04	--	1.300E-02
	ES21D	Drying oven #21	7.720E-01	8.640E-06	3.490E-04	1.820E-05	2.450E-05	2.730E-04	--	1.300E-02

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Table 2.2 B.1 continued

Emission Source ID No.	Model ID	Source Description	Acetic Acid	Arsenic	Benzene	Beryllium	Cadmium	Ethylene Oxide	Fluoride	Formaldehyde
ES-22	ES22	Drying oven #22	7.720E-01	1.840E-05	7.450E-04	3.880E-05	5.220E-05	2.730E-04	--	2.770E-02
ES-23	ES23	Drying oven #23	7.720E-01	1.840E-05	7.450E-04	3.880E-05	5.220E-05	2.730E-04	--	2.770E-02
ES-24	ES24	Drying oven #24	7.720E-01	1.840E-05	7.450E-04	3.880E-05	5.220E-05	2.730E-04	--	2.770E-02
ES-25	ES25	Drying oven #25	7.720E-01	1.840E-05	7.450E-04	3.880E-05	5.220E-05	2.730E-04	--	2.770E-02
ES-26	ES26	Drying oven #26	7.720E-01	1.840E-05	7.450E-04	3.880E-05	5.220E-05	2.730E-04	--	2.770E-02
ES-27	ES27	Drying oven #27	7.720E-01	1.840E-05	7.450E-04	3.880E-05	5.220E-05	2.730E-04	--	2.770E-02
ES-D1	ESD1	Dielectric oven #1	7.720E-01	--	--	--	--	2.730E-04	--	1.210E-04
ES-D2	ESD2	Dielectric oven #2	7.720E-01	--	--	--	--	2.730E-04	--	1.210E-04
ES-D3	ESD3	Dielectric oven #3	7.720E-01	--	--	--	--	2.730E-04	--	1.210E-04
ES-D4	ESD4	Dielectric oven #4	7.720E-01	--	--	--	--	2.730E-04	--	1.210E-04
ES-D5	ESD5	Dielectric oven #5	7.720E-01	--	--	--	--	2.730E-04	--	1.210E-04
ESWC367a	EPWC367	Remote Wet Cut #1	6.420E+00	8.220E-05	3.320E-03	1.730E-04	2.330E-04	2.260E-03	--	1.240E-01
ESWC368a	EPWC368	Remote Wet Cut #2	6.420E+00	8.220E-05	3.320E-03	1.730E-04	2.330E-04	2.260E-03	--	1.240E-01
ESWC369a	EPWC369	Remote Wet Cut #3	6.420E+00	8.220E-05	3.320E-03	1.730E-04	2.330E-04	2.260E-03	--	1.240E-01
ESWCL370	EPWC370	Remote Wet Cut #4	6.420E+00	8.220E-05	3.320E-03	1.730E-04	2.330E-04	2.260E-03	--	1.240E-01
ESWCL371	EPWC371	Remote Wet Cut #5	6.420E+00	8.220E-05	3.320E-03	1.730E-04	2.330E-04	2.260E-03	--	1.240E-01
ES97	EPBR97	Binder Area Vent System	3.800E+00	--	--	--	--	1.340E-03	--	5.960E-04
ES378	EP378	526 In-line Dryer	3.350E+00	7.050E-05	2.850E-03	1.480E-04	2.000E-04	1.180E-03	--	1.060E-01
ES379	EP379	526 In-line Dryer	3.350E+00	7.050E-05	2.850E-03	1.480E-04	2.000E-04	1.180E-03	--	1.060E-01
ES380	EP380	526 In-line Dryer	3.350E+00	7.050E-05	2.850E-03	1.480E-04	2.000E-04	1.180E-03	--	1.060E-01
ES381	EP381	526 In-line Dryer	3.350E+00	3.520E-05	1.420E-03	7.410E-05	9.980E-05	1.180E-03	--	5.290E-02
520M	EPM9	Furnace 520 melter	--	4.170E-04	1.680E-02	8.760E-04	1.180E-03	--	2.200E+00	6.230E-01
520R/F	EPVENT	Robison Vent. (vents Furnace 520 R/Fs)	--	1.400E-04	5.660E-03	2.940E-04	3.960E-04	--	2.450E-01	2.090E-01
524M	EPEC9	Furnace 524 melter	--	6.140E-04	2.480E-02	1.290E-03	1.740E-03	--	5.620E+00	9.180E-01
524R	EPR10	Furnace 524 Refiner #1 stack	--	1.880E-05	7.580E-04	3.950E-05	5.310E-05	--	3.120E-01	2.800E-02
524F	EPF12	Furnace 524 Forehearth #1 stack	--	1.880E-05	7.580E-04	3.950E-05	5.310E-05	--	7.810E-02	2.800E-02
	EPF13	Furnace 524 Forehearth #2 stack	--	1.880E-05	7.580E-04	3.950E-05	5.310E-05	--	7.810E-02	2.800E-02
	EPF14	Furnace 524 Forehearth #3 stack	--	1.880E-05	7.580E-04	3.950E-05	5.310E-05	--	7.810E-02	2.800E-02
	EPF15	Furnace 524 Forehearth #4 stack	--	1.880E-05	7.580E-04	3.950E-05	5.310E-05	--	7.810E-02	2.800E-02
525M	EPM16	Furnace 525 melter	--	9.390E-04	3.790E-02	1.970E-03	2.660E-03	--	4.780E+00	1.400E+00
525R	EPR16	Furnace 525 Refiner stack #1	--	3.620E-05	1.460E-03	7.620E-05	1.030E-04	--	8.860E-02	5.420E-02
	EPR18	Furnace 525 Refiner stack #2	--	3.620E-05	1.460E-03	7.620E-05	1.030E-04	--	8.860E-02	5.420E-02
	EPR19	Furnace 525 Refiner stack #3	--	3.620E-05	1.460E-03	7.620E-05	1.030E-04	--	8.860E-02	5.420E-02

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Table 2.2 B.1 continued

Emission Source ID No.	Model ID	Source Description	Acetic Acid	Arsenic	Benzene	Beryllium	Cadmium	Ethylene Oxide	Fluoride	Formaldehyde
525F	EPF20	Furnace 525 Forehearth stack #1	--	3.620E-05	1.460E-03	7.620E-05	1.030E-04	--	6.640E-02	5.420E-02
	EPF21	Furnace 525 Forehearth stack #2	--	3.620E-05	1.460E-03	7.620E-05	1.030E-04	--	6.640E-02	5.420E-02
	EPF22	Furnace 525 Forehearth stack #3	--	3.620E-05	1.460E-03	7.620E-05	1.030E-04	--	6.640E-02	5.420E-02
	EPF23	Furnace 525 Forehearth stack #4	--	3.620E-05	1.460E-03	7.620E-05	1.030E-04	--	6.640E-02	5.420E-02
526M	EPM24	Furnace 526 melter	--	7.350E-04	2.970E-02	1.540E-03	2.080E-03	--	6.050E+00	1.100E+00
526R	EPR25	Furnace 526 Refiner stack #2	--	2.680E-05	1.080E-03	5.630E-05	7.580E-05	--	1.120E-01	4.000E-02
	EPR26	Furnace 526 Refiner stack #3	--	2.680E-05	1.080E-03	5.630E-05	7.580E-05	--	1.120E-01	4.000E-02
	EPR27	Furnace 526 Refiner stack #6	--	2.680E-05	1.080E-03	5.630E-05	7.580E-05	--	1.120E-01	4.000E-02
526F	EPF28	Furnace 526 Forehearth stack #7	--	2.680E-05	1.080E-03	5.630E-05	7.580E-05	--	5.600E-02	4.000E-02
	EPF29	Furnace 526 Forehearth stack #8	--	2.680E-05	1.080E-03	5.630E-05	7.580E-05	--	5.600E-02	4.000E-02
	EPF30	Furnace 526 Forehearth stack #9	--	2.680E-05	1.080E-03	5.630E-05	7.580E-05	--	5.600E-02	4.000E-02
	EPF31	Furnace 526 Forehearth stack #10	--	2.680E-05	1.080E-03	5.630E-05	7.580E-05	--	5.600E-02	4.000E-02
	EPF32	Furnace 526 Forehearth stack #11	--	2.680E-05	1.080E-03	5.630E-05	7.580E-05	--	5.600E-02	4.000E-02
	EPF33	Furnace 526 Forehearth stack #12	--	2.680E-05	1.080E-03	5.630E-05	7.580E-05	--	5.600E-02	4.000E-02
ESB83A	EPB83A	Boiler #3	--	4.850E-06	5.100E-05	2.910E-07	2.670E-05	--	--	8.880E-03
ESB83B	EPB83B	Boiler #4	--	4.850E-06	5.100E-05	2.910E-07	2.670E-05	--	--	8.880E-03
ESDG85	EPDG85	Diesel generator #2, B/R	--	3.360E-05	6.520E-03	2.520E-05	2.520E-05	--	--	6.630E-04
ESDG86	EPDG86	Diesel generator #3, B/R	--	3.360E-05	6.520E-03	2.520E-05	2.520E-05	--	--	6.630E-04
ESDG88A	EPDG88A	Diesel generator #4, Furnace 525	--	5.040E-05	9.780E-03	3.780E-05	3.780E-05	--	--	9.940E-04
ESDG88B	EPDG88B	Diesel generator #5, Furnace 526	--	5.040E-05	9.780E-03	3.780E-05	3.780E-05	--	--	9.940E-04
ESDP366	ESDP366	Diesel pump 524 PW return	--	3.220E-06	7.510E-04	2.420E-06	2.420E-06	--	--	9.500E-04
ESDP89	EPDP89	Diesel pump 524 PW supply	--	9.100E-06	2.120E-03	6.830E-06	6.830E-06	--	--	2.680E-03
ESDP90	EPDP90	Diesel pump, 525 PW supply	--	6.720E-06	1.570E-03	5.040E-06	5.040E-06	--	--	1.980E-03
ESDP91	EPDP91	Diesel pump, 525 PW Return	--	3.220E-06	7.510E-04	2.420E-06	2.420E-06	--	--	9.500E-04
ESDP92	EPDP92	Diesel pump Loop 1&2 S	--	7.000E-06	1.630E-03	5.250E-06	5.250E-06	--	--	2.070E-03
ESDP93	EPDP93	Diesel pump, 526 PW supply	--	3.500E-06	8.160E-04	2.630E-06	2.630E-06	--	--	1.030E-03
ESDP94	EPDP94	Diesel pump, 526 PW Return	--	3.500E-06	8.160E-04	2.630E-06	2.630E-06	--	--	1.030E-03
ES-CAEB524	ESEB524	Furnace 524 Emergency Blower	--	4.200E-06	9.800E-04	3.150E-06	3.150E-06	--	--	1.240E-03
ES-CAEB525	ESEB525	Furnace 525 Emergency Blower	--	4.200E-06	9.800E-04	3.150E-06	3.150E-06	--	--	1.240E-03
ES-CAEB526	ESEB526	Furnace 526 Emergency Blower	--	4.200E-06	9.800E-04	3.150E-06	3.150E-06	--	--	1.240E-03
ES-FP1	FP1	Fire Water Pump	--	7.000E-06	1.630E-03	5.250E-06	5.250E-06	--	--	2.070E-03
ESB83C	EPB83C	20 HP Boiler (0.84 Mmbut/hr - NG)	--	--	1.710E-06	--	--	--	--	6.120E-05
I-WWTP	WWTP	Wastewater Treatment Process	1.850E-02	--	--	--	--	--	--	--

State-enforceable only

2. 15A NCAC 02Q .0711: EMISSION RATES REQUIRING A PERMIT

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

TAP	TPER	Units
1,4 dioxane	12	lb/day
Acetaldehyde	6.8	lb/hr
Acrylonitrile	0.4	lb/day
	0.22	lb/hr
Ammonia	0.68	lb/hr
Benzyl Chloride	0.13	lb/hr
Beryllium	0.28	lb/yr
soluble chromate compounds, as chromium (VI) equivalent	0.013	lb/day
Epichlorohydrin	5600	lb/yr
Ethylene diamine	6.3	lb/day
	0.64	lb/hr
HCL	0.18	lb/hr
Hexane	23	lb/day
Manganese	0.63	lb/day
MEK	78	lb/day
Nickel	22.4	lb/hr
Phenol	0.24	lb/hr
Phosphine	0.32	lb/hr
Styrene	2.7	lb/hr
Toluene	98	lb/day
	14.4	lb/hr
Xylene	57	lb/day
	16.4	lb/hr

State-enforceable only

3. 15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

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

C. The following fiberglass furnaces:

Natural gas/propane/direct oxygen-fired melter (ID No. 520M)
Natural gas/propane/direct oxygen-fired melter equipped with electric boost (ID No. 524M)
Natural gas/propane/direct oxygen-fired melter equipped with electric boost (ID No. 525M)
Natural gas/propane/direct oxygen-fired melter equipped with electric boost (ID No. 526M)

State-enforceable only

1. Pursuant to NCGS 143-215.108(c):

a. As required by the Special Order of Consent (SOC) (2002-002), fluoride emissions from these furnace melters (**ID Nos. 520M, 524M, 525M, and 526M**) shall be less than 0.45 pounds per ton (annual average) of glass pulled.

Testing

b. The Permittee has completed the source testing as specified in permit no. T62 on June 30, 2016. A total batch fluoride content was correlated to the emission limit in Section 2.2 C.1.a above, assuming a linear relationship between the emissions test result and the total fluoride content of the batch used during the testing. The source test results and the correlated batch fluoride content value shall be used to assess compliance with the emission limit in Section 2.2 C.1.a.

Operating Limitations

c. Fluoride emissions from the melter section of the furnaces (**ID Nos. 520M, 524M, 525M, and 526M**) shall be controlled by the use of environmentally friendly batch (EFB).

Monitoring/Recordkeeping

d. Upon completion and approval of the testing required in Section 2.2 C.1.b above, the Permittee shall determine the fluoride content of batch materials on an annual basis. The determination shall be conducted pursuant to the sampling and analysis plan used in the initial batch fluoride content determination on June 30, 2016. The second analysis shall be conducted within one year of the initial source test and analysis. Subsequent analyses shall be conducted no longer than 13 months from the prior analysis.

e. Based on the annual analysis described in Section 2.2 C.1.d above, the total batch fluoride content shall be determined for every batch recipe change (or at least monthly if no changes) on a pound per ton of glass pulled basis for each furnace. For purposes of compliance, the batch fluoride content shall not exceed on an annual average basis the batch fluoride value correlated to the fluoride emission limit as determined in Section 2.2 C.1.b above.

f. Records of the of the correlated batch fluoride content value, the annual analysis, and each batch fluoride calculation shall be recorded in logbook (written or electronic format). The Permittee shall make these records available during any on-site visit or upon request by the DAQ.

Reporting

g. 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.

DRAFT

SECTION 3 - INSIGNIFICANT ACTIVITIES PER 15A NCAC 02Q .0503(8)

Emission Source ID No.	Emission Source Description[1,2]
IES130/DC130	One baghouse (10:1 gas-to-cloth ratio) installed on one hydrated lime storage silo
I-ESPF	Propane Flare (at propane farm)
IESPC141	Alloy Plasma Coating Operation
I-WWTP-P108	Wastewater Treatment Plant Aeration Tanks #1 & #2
I-WWTP-P109	Wastewater Treatment Plant Primary Clarifiers #1 & #2
I-WWTP-P111	Wastewater Treatment Plant Secondary Clarifiers #1, #2 & #3
I-WWTP-P112	Wastewater Treatment Plant Secondary Clarifier Pump Suction Tank
I-ESWTPIST	Wastewater Treatment Plant Influent Surge Tank
I-ESWTPEHT	Wastewater Treatment Plant Effluent Holding Tank
I-WWTP-P107	Wastewater Treatment Plant Flash Mix Tank
I-WWTP-P106	Wastewater Treatment Plant Equalization Tank
I-WWTP-P110	Wastewater Treatment Plant Sludge Thickener Tank
I-ESWTPFCT	Wastewater Treatment Plant Ferric Chloride Tanks 1-3
I-ESWTPACT	Wastewater Treatment Plant Aluminum Chloride Tanks 1-2
I-ESWTPLH	Wastewater Treatment Plant Laboratory Hood
I-ESFOT	30,000 gallon fuel oil tank
I-ESWDT	5,000 gallon warehouse diesel tank
I-ESGFOT	5,000 gallon #4&5 generator fuel oil tank
I-ESGT	1,000 gallon gasoline tank
I-ES526FP	1,000 gallon 526 furnace pump diesel tank
I-ESVFT	Various other fuel oil tanks <500 gallons
I-ESGLH12	Glass Laboratory Hoods #1 & #2
I-ESGLOHH12	Glass Lab Oven Heat Hoods #1 & #2
I-ESASH	Alloy Shop Hoods #1 & #2
I-ESASWH	Alloy Shop Weld Hoods
I-ESRE181	Science & Technology (Research Bldg.) Extrusion, LFT, Injection Molding, and Oven Hood
I-ESRE182	Science & Technology (Research Bldg.) Mixing Area Hood
I-ESRE183	Science & Technology (Research Bldg.) Filament Winding Area
I-ESRE184	Science & Technology (Research Bldg.) Ovens 1-6,Peg Wetout, and Beringer Autoclave Oven
I-ESRE185	Science & Technology (Research Bldg.) Dispatch Electric Post Curing Oven (240V)
I-ESRE189 I-ESRE190	Science & Technology (Research Bldg.) Spray Booth
I-ESRE191	Science & Technology (Research Bldg.) Burn Off Ovens 1-4
I-ESRE192	Science & Technology (Research Bldg.) Weather-O-Meter Wet Lab Mezzanine
I-ESRE193	Science & Technology (Research Bldg.) Sample Prep Room
I-ESRE196	Science & Technology (Research Bldg.) Pipe Cure and Wabash Press
I-ESREC197	Science & Technology (Research Bldg.) Binder Lab hoods (4 hoods w/ common stack) Resin Storage and Dispensing
I-ESRE197	Science & Technology Area Electric Melter (40 lb/hr glass production capacity) with dust collector
I-ESRE198	Science & Technology (Research Bldg.) Chopped Extruder, Mixing and Pultrusion
I-ESREBL	Science & Technology (Research Bldg.) Binder Lab hoods (3 hoods w/ common stack)
I-ESBSH	Buff shop hood with rotoclone
I-ESRQCLH	Roving QC Lab Hood
I-ESMWH	Maintenance Welding Hood
I-ESSFFSWH	Special Fab Fixer Shop Weld Hood
I-ESDMCF	DMCF Fixer Shop Weld Hood
I-ESAEO	Ajax Electric Oven for bushings
I-ESARDO	Ajax Room Drying Oven
I-ESDSME	Drop Shot Melt equipment (training)

Emission Source ID No.	Emission Source Description[1,2]
I-ESREC1	Reinforcement Evaluation Center (Development) Binder Mixing and Weighing
I-ESREC2	Reinforcement Evaluation Center (Development) Rexnord Unit
I-ESUD155	Fugitive loss from transfer of material from vacuum separator bad batch bin to waste hopper
I-ESRE200	Science & Technology (Research Bldg.) operations controlled by bagfilter
I-CTB-PC	Collet cleaning process consisting of a parts cleaner and dip tank
I-ESBSHPW	Rotoclone Area Parts Washer
I-ESRWCPW	Remote Wet Cut Area Parts Washer

[1] Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement (Federal or State) or that the Permittee is exempted from demonstrating compliance with any applicable requirement.

[2] When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100 “Control of Toxic Air Pollutants” or 02Q .0711 “Emission Rates Requiring a Permit.”

SECTION 4 - GENERAL CONDITIONS (version 8.0, 07/10/2024)

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

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]
1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. **Permit Availability** [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]
The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application(s) and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of the Department of Environmental Quality upon request.

C. **Severability Clause** [15A NCAC 02Q .0508(i)(2)]
In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]
Except as otherwise specified herein, one copy of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

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

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

E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]
The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

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

G. **Title V Permit Modifications**
1. Administrative Permit Amendments [15A NCAC 02Q .0514]
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.
3. Minor Permit Modifications [15A NCAC 02Q .0515]
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.
4. Significant Permit Modifications [15A NCAC 02Q .0516]
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.
5. Reopening for Cause [15A NCAC 02Q .0517]
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

H. **Changes Not Requiring Permit Modifications**
1. Reporting Requirements [15A NCAC 02Q .0508(f)]
Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
   a. changes in the information submitted in the application;
   b. changes that modify equipment or processes; or
   c. changes in the quantity or quality of materials processed.

   If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.
2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]
   a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
   b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
      i. the changes are not a modification under Title I of the Federal Clean Air Act;
      ii. the changes do not cause the allowable emissions under the permit to be exceeded;
      iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
      iv. the Permittee shall attach the notice to the relevant permit.
   c. The written notification shall include:
      i. a description of the change;
      ii. the date on which the change will occur;
      iii. any change in emissions; and
      iv. any permit term or condition that is no longer applicable as a result of the change.
   d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
3. Off Permit Changes [15A NCAC 02Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
   a. the change affects only insignificant activities and the activities remain insignificant after the change; or
   b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 02Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

I.A **Reporting Requirements for Excess Emissions** [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]

1. "Excess Emissions" - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. *(Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.)*
2. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
3. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
   a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
      i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
         - name and location of the facility;
         - nature and cause of the malfunction or breakdown;
         - time when the malfunction or breakdown is first observed;
         - expected duration; and
         - estimated rate of emissions;
      ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
      iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

I.B **Reporting Requirements for Permit Deviations** [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]

1. "Permit 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.
2. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) quarterly by notifying the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535. 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.C **Other Requirements under 15A NCAC 02D .0535**

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 02D .0535(c)(1) through (7).
2. 15A NCAC 02D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. **RESERVED**

K. **Permit Renewal** [15A NCAC 02Q .0508(e) and 02Q .0513(b)]

This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least six months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .0508(i)(4)]
It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 02Q .0508(i)(9)]
1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 02Q .0507(f)]
The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 02Q .0508(f) and 02Q .0508(l)]
The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]
The Permittee shall submit to the DAQ and the EPA (Air Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303 or through the EPA CEDRI) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all terms and conditions in the permit (including emissions limitations, standards, or work practices), except for conditions identified as being State-enforceable Only. 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;
4. the method(s) used for determining the compliance status of the source during the certification period;
5. each deviation and take it into account in the compliance certification; and
6. as possible exceptions to compliance, any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 (CAM) occurred.

Q. **Certification by Responsible Official** [15A NCAC 02Q .0520]
A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 02Q .0512]
1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
   a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
   b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
   c. the applicable requirements under Title IV; or

   d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .0519]
The Director may terminate, modify, or revoke and reissue this permit if:
1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 02Q .0503]
Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 02Q .0508(i)(8)]
This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]
1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
   a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
   b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
   c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
   d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

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

W. **Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]
1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 02Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]
The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 02Q .0107 and 02Q .0508(i)(9)]
Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .0100 and .0300]
A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 02Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]
The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 02Q .0507(d)(3)]
The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(d)]
1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 02Q .0508(h)]
If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. **National Emission Standards Asbestos – 40 CFR Part 61, Subpart M** [15A NCAC 02D .1110]
The Permittee shall comply with all applicable standards for demolition and renovation activities pursuant to the requirements of 40 CFR Part 61, Subpart M. The permittee shall not be required to obtain a modification of this permit in order to perform the referenced activities.

FF. **Title IV Allowances** [15A NCAC 02Q .0508(i)(1)]
This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. **Air Pollution Emergency Episode** [15A NCAC 02D .0300]
Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 02D .0300.

HH. **Registration of Air Pollution Sources** [15A NCAC 02D .0202]
The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 02D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 02D .0501(c)]
In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of

the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. **General Emissions Testing and Reporting Requirements** [15A NCAC 02Q .0508(i)(16)]
Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .1110, or .1111 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance for emission sources subject to Rules .0524, .1110, or .1111, the Permittee shall provide and submit all notifications, conduct all testing, and submit all test reports in accordance with the requirements of 15A NCAC 02D .0524, .1110, or .1111, as applicable. Otherwise, if emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.
4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
    a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
        i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
        ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
        iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in 15A NCAC 02D .2600 if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
    b. The Director may authorize the DAQ to conduct independent tests of any source subject to a rule in 15A NCAC 02D 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 15A NCAC 02D .2600 has precedence over all other tests.

KK. **Reopening for Cause** [15A NCAC 02Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
    a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
    b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
    c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
    d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.

4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. **Reporting Requirements for Non-Operating Equipment** [15A NCAC 02Q .0508(i)(16)]
The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. When permitted equipment is not in operation, the requirements for testing, monitoring, and recordkeeping are suspended until operation resumes.

MM. **Fugitive Dust Control Requirement** [15A NCAC 02D .0540]
As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

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

NN. **Specific Permit Modifications** [15A NCAC 02Q .0501 and .0523]
1. For modifications made pursuant to 15A NCAC 02Q .0501(b)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (Air Permitting Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303 or through the EPA CEDRI) in writing at least seven days before the change is made.
    a. The written notification shall include:
        i. a description of the change at the facility;
        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.
    b. In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. **Third Party Participation and EPA Review** [15A NCAC 02Q .0521, .0522 and .0525(7)]
For permits modifications subject to 45-day review by the federal EPA, EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.