ROY COOPER
Governor
ELIZABETH S. BISER
Secretary
MICHAEL ABRACZINSKAS
Director

NORTH CAROLINA
Environmental Quality

XXXXX XX, 2023

Mr. Thomas Agron
VP Facilities
Wolfspeed, Inc. – Siler City Factory
4600 Silicon Drive
Durham, NC 27703

SUBJECT: Air Quality Permit No. 10771R00
Facility ID: 1900138
Wolfspeed, Inc. – Siler City Factory
Siler City
Chatham County
Fee Class: Title V
PSD Class: Minor

Dear Mr. Agron:

In accordance with your completed Air Quality Permit Application for a Greenfield Facility, we are forwarding herewith Air Quality Permit No. 10771R00 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.

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

Chatham county has triggered minor source baseline dates for PM_{10}, SO_2, and NOx. This new facility construction will result in an increase in 1.28 pounds per hour of PM_{10}, 0.03 pounds per hour of SO_2, and 25.94 pounds per hour of NOx.

This Air Quality Permit shall be effective from XXXXX XX, 2023 until XXXX XX, 2031, 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 Emily Supple, at (919) 707-8481 or Emily.supple@ncdenr.gov.

Sincerely yours,

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

Enclosure

c: Laserfiche (1900138)
Connie Horne (cover letter only)

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:

William F. Lane, 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

Page No.	Section	Description of Changes
N/A	N/A	N/A - Initial permit for this Greenfield Facility

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

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
10771R00	N/A	XXXXX XX, 2023	XXXXX XX, 2031

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: **Wolfspeed, Inc. – Siler City Factory**
Facility ID: **1900138**
Primary SIC Code: **3674**
NAICS Code: **334413**

Facility Site Location: **1000 Carolina Core Parkway**
City, County, State, Zip: **Siler City, Chatham County, North Carolina 27344**
Mailing Address: **4600 Silicon Drive**
City, State, Zip: **Durham, North Carolina 27703**

Application Number(s): **1900138.22A**
Complete Application Date(s): **November 16, 2022**

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

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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

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
Wafer Production			
ES-WAFEROP	Wafer production operations	CD-1a, CD-1b, CD-1c, CD-1d CD-1e, CD-1f, CD-1g, CD-1h CD-1j	Four (4) wet acid gas scrubbers Four (4) wet solvent gas scrubbers Gas abatement system (3.2 million Btu per hour maximum heat input, total)*
ES-SW	Solid waste processing	CD-2	Dust collector (11,000 cubic feet per minute maximum inlet air flow rate)
ES-VAC	Wafer operations housekeeping dust vacuum system	CD-3	Building vacuum system (1,000 cubic feet per minute maximum inlet air flow rate)
ES-NGMISC	Miscellaneous natural gas-fired appliances (0.622 million Btu per hour maximum heat input rate, total)	N/A	N/A
Internal Combustion Sources			
ES-GEN1 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency generator 1 (2,923 horsepower maximum engine output)	N/A	N/A
ES-GEN2 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency generator 2 (2,923 horsepower maximum engine output)	N/A	N/A
ES-GEN3 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency generator 3 (2,923 horsepower maximum engine output)	N/A	N/A
ES-GEN4 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency generator 4 (2,923 horsepower maximum engine output)	N/A	N/A
ES-GEN5 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency generator 5 (2,923 horsepower maximum engine output)	N/A	N/A
ES-GEN6 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency generator 6 (2,923 horsepower maximum engine output)	N/A	N/A
ES-GEN7 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency generator 7 (2,923 horsepower maximum engine output)	N/A	N/A
ES-GEN8 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency generator 8 (2,923 horsepower maximum engine output)	N/A	N/A
ES-GEN9 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency generator 9 (2,923 horsepower maximum engine output)	N/A	N/A

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-GEN10 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency generator 10 (2,923 horsepower maximum engine output)	N/A	N/A
ES-GEN11 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency generator 11 (2,923 horsepower maximum engine output)	N/A	N/A
ES-PCW1 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency condenser water pump 1 (800 horsepower maximum engine output)	N/A	N/A
ES-PCW2 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency condenser water pump 2 (800 horsepower maximum engine output)	N/A	N/A
ES-PCW3 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency condenser water pump 3 (800 horsepower maximum engine output)	N/A	N/A
ES-PCW4 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency condenser water pump 4 (800 horsepower maximum engine output)	N/A	N/A
ES-PCW5 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency primary water pump 1 (1,150 horsepower maximum engine output)	N/A	N/A
ES-PCW6 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency primary water pump 2 (1,150 horsepower maximum engine output)	N/A	N/A
ES-PCW7 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency primary water pump 3 (1,150 horsepower maximum engine output)	N/A	N/A
ES-PCW8 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency primary water pump 4 (1,150 horsepower maximum engine output)	N/A	N/A
ES-PCW9 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency primary water pump 5 (1,150 horsepower maximum engine output)	N/A	N/A
ES-PCW10 **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency primary water pump 6 (1,150 horsepower maximum engine output)	N/A	N/A
ES-FPUMP **NSPS IIII** **GACT ZZZZ**	Diesel-fired emergency fire pump (500 horsepower maximum engine output)		
Miscellaneous			
ES-TANK1	12,000 gallon diesel fuel storage tank	N/A	N/A

*Operation of the Gas Abatement System (ID No. CD-1j) not required to achieve compliance with any State or Federal air quality standard

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. Wafer Production:

Wafer production operations (ID No. ES-WAFEROP) controlled by four (4) wet solvent gas scrubbers (ID Nos. CD-1e, CD-1f, CD-1g, and CD-1h) and a gas abatement system (ID No. CD-1j) in series with four (4) wet acid gas scrubbers (ID Nos. CD-1a, CD-1b, CD-1c, and CD-1d)

Solid waste processing (ID No. ES-SW) controlled by a dust collector (ID No. CD-2)

Wafer production operations housekeeping dust vacuum system (ID No. ES-VAC) controlled by a building vacuum system (ID No. CD-3)

Miscelleneous natural gas-fired appliances (ID No. ES-NGMISC)

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E=4.10 \times P^{0.67}$, for process rates $\leq$ 30 tons per hour, OR $E=55 \times P^{0.11} - 40$, for process rates > 30 tons per hour Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour **(ID Nos. ES-SW and ES-VAC)**	15A NCAC 02D .0515
Sulfur Dioxide	2.3 pounds per million Btu heat input **(ID No. ES-WAFEROP and ES-NGMISC)**	15A NCAC 02D .0516
Visible Emissions	20 percent opacity **(ID Nos. ES-WAFEROP, ES-SW, ES-VAC, and ES-NGMISC)**	15A NCAC 02D .0521
-	**See Section 2.2 A.1** **(ID Nos. All emissions sources included in 2.1 A)**	15A NCAC 02D .0535
Toxic air pollutants	**See Section 2.1 A.4** **(ID No. ES-WAFEROP)**	15A NCAC 02D .0605
Volatile organic compounds	**See Section 2.1 A.5** **(ID No. ES-WAFEROP)**	15A NCAC 02D .0611
Toxic air pollutants	**See Section 2.2 A.2** **(ID Nos. ES-WAFEROP and ES-NGMISC)**	15A NCAC 02D .1100
Odor	**See Section 2.2 A.3** **(ID Nos. All emissions sources included in 2.1 A)**	15A NCAC 02D .1806
Hazardous air pollutants	**See Section 2.2 A.4** **(ID Nos. ES-WAFEROP and ES-NGMISC)**	15A NCAC 02Q .0317 (Avoidance of MACT)
-	**See Section 2.2 A.5**	15A NCAC 02Q .0504
Toxic air pollutants	**See Section 2.2 A.6**	15A NCAC 02Q .0711
-	**See Section 2.2 A.7**	15A NCAC 02Q .0304(d) and (f)
-	**See Section 2.2 A.8**	15A NCAC 02Q .0207
-	**See Section 2.2 A.9**	NCGS §143-215.108(d)(1) and 15A NCAC 02Q .0308(a)(1)

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

a. Emissions of particulate matter from these sources **(ID Nos. ES-SW and ES-VAC)** 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
$E = 55.0 \times P^{0.11} - 40$ (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 and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0308(a)]

b. If emissions testing is required, the testing shall be performed in accordance with General Conditions in Section 3.

Monitoring [15A NCAC 02Q .0308(a)]

c. Particulate matter emissions from these sources **(ID Nos. ES-SW and ES-VAC)** shall be controlled by the particulate matter collection devices **(ID Nos. CD-2 and CD-3)**. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
   ii. an annual (for each 12-month period following the initial inspection) internal inspection of the bagfilter's structural integrity.

Recordkeeping [15A NCAC 02Q .0308(a)]

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 any control device; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

Reporting [15A NCAC 02Q .0308(a)]

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

f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1 A.1.c and 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.

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

a. Emissions of sulfur dioxide from these sources **(ID Nos. ES-WAFEROP and ES-NGMISC)** shall not exceed 2.3 pounds per million Btu heat input each. 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 .0308(a)]

b. If emissions testing is required, the testing shall be performed in accordance with General Conditions in Section 3.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0308(a)]

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas in these sources **(ID Nos. ES-WAFEROP and ES-NGMISC)**.

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

a. Visible emissions from these sources **(ID Nos. ES-WAFEROP, ES-SW, ES-VAC, and ES-NGMISC)** 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 .0308(a)]

b. If emissions testing is required, the testing shall be performed in accordance with General Conditions in Section 3.

Monitoring [15A NCAC 02Q .0308(a)]

c. To ensure compliance, once a month, the Permittee shall observe the emission points of these sources **(ID Nos. ES-WAFEROP, ES-SW, ES-VAC, and ES-NGMISC)** 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. The Permittee shall establish "normal" for these sources in the first 30 days following the beginning of operation. If visible emissions from these source(s) are observed to be above normal, the Permittee shall either:
   i. take appropriate action to correct the above-normal emissions as soon as practicable and 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 .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.3.a above.

Recordkeeping [15A NCAC 02Q .0308(a)]

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.

Reporting [15A NCAC 02Q .0308(a)]

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

4. 15A NCAC 02D .0605: TESTING REQUIREMENT

a. Under the provisions of North Carolina General Statute 143-215.108 and in accordance with 15A NCAC 02D .0605, the Permittee shall conduct stack testing on the wafer production operations **(ID No. ES-WAFEROP**), wet acid gas scrubbers **(ID Nos. CD-1a, CD-1b, CD-1c, and CD-1d)**, for determining the following:
   i. control efficiencies of the wet acid gas scrubbers (P1 in Section 2.2 A.2.j and Section 2.2 A.4.n) for removal of the air pollutants (HCl, HF, H_2SO_4, Cl_2, and HNO_3);
   ii. operating parameters of the wet acid gas scrubbers including liquid injection rate, differential pressure drop, and scrubber liquid pH;
   iii. *evaporation rate of liquid H_2SO_4 from use in wafer production (P2 in Section 2.2 A.2.j);
   iv. *evaporation rate of liquid H_2SO_4 from use in the acid gas scrubbers (P3 in Section 2.2 A.2.j);
   v. *evaporation rate of liquid HCl fro use in wafer production (P4 in Section 2.2 A.2.j and P2 in Section 2.2 A.4.n);
   vi. emission rate of gaseous HCl from use in gas abatement system (P5 in Section 2.2 A.2.j and P3 in Section 2.2 A.4.n);
   vii. *evaporation rate of liquid HF from use in wafer production (P6 in Section 2.2 A.2.j and P4 in Section 2.2 A.4.n); and
   viii. emission rate of gaseous Cl_2 from use in gas abatement system (P5 in Section 2.2 A.4.n).

   *evaporation rates will be calculated using the control efficiency, usage rates, and emission rates determined during testing.

Affected Source(s)	Pollutant	Test Method
Wafer production operations (ID No. ES-WAFEROP) controlled by wet acid gas scrubbers (ID Nos. CD-1a, CD-1b, CD-1c, and CD-1d) and gas abatement system (ID No. CD-1j)	HCl (hydrochloric acid)	DAQ Approved Method
	HF (hydrofluoric acid)	DAQ Approved Method
	H_2SO_4 (sulfuric acid)	DAQ Approved Method
	Cl_2 (chlorine)	DAQ Approved Method
	HNO_3 (nitric acid)	DAQ Approved Method

Testing [15A NCAC 02Q .0308(a)]

b. Unless otherwise specified by federal rules, the Permittee shall perform such testing in accordance with 15A NCAC 02D 2600.
c. The Permittee shall conduct the performance test and submit the results within 180 days of startup of the wafer production operations **(ID No. ES-WAFEROP)**.
d. The Permittee shall arrange for air emissions testing protocols to be provided to the DAQ prior to testing. Testing protocols are not required to be pre-approved by the DAQ prior to testing. The DAQ shall review testing protocols for pre-approval prior to testing if requested by the Permittee at least 45 days before conducting the test.
e. To afford the Regional Supervisor, DAQ, the opportunity to have an observer present, the Permittee shall provide the Regional Office, in writing, at least 15 days notice of any required performance test(s).
f. Two copies of the test results must be submitted to the Regional Supervisor, DAQ, in accordance with the approved procedures of the Environmental Management Commission.
g. This permit may be revoked, with proper notice to the Permittee, or enforcement procedures initiated, if the results of the test(s) indicate that the facility does not meet applicable limitations.
h. During this stack testing, the Permittee shall measure and document liquid injection rates, differential pressure drop across the scrubbers, and pH values of the liquid injected into the scrubbers associated with each of the emission sources, for ensuring compliance with the limits for hydrochloric acid, hydrofluoric acid, sulfuric acid, chlorine, and nitric acid given in Section 2.2 A.2.a, Section 2.2.A.4.a, and Section 2.2 A.6.d, below.
i. The source shall be responsible for ensuring, within the limits of practicality, that the equipment or process being tested is operated at or near its maximum normal production rate, or at a lesser rate if specified by the Director or his delegate.
j. All associated testing costs are the responsibility of the Permittee.
k. Upon DAQ approval of stack test results for hydrochloric acid, hydrofluoric acid, sulfuric acid, chlorine, and nitric acid, ensuring compliance with the limits given in Section 2.2 A.2.a, Section 2.2.A.4.a, and Section 2.2 A.6.d, below, the Permittee shall request an administrative amendment of its air permit permit to revise the liquid injection rates of each scrubber included in Section 1 of the permit with the observed liquid injection rate for each scrubber during this stack testing.

5. 15A NCAC 02D .0611 SCRUBBER REQUIREMENTS

Monitoring [15A NCAC 02Q .0308(a)]

a. VOC emissions from the source **(ID No. ES-WAFEROP)** shall be controlled by the wet solvent scrubbers **(ID Nos. CD-1e, CD-1f, CD-1g, and CD-1h)**. To comply with the provisions of this permit and ensure that emissions do not exceed the regulatory limits, the Permittee shall perform periodic inspections and maintenance (I&M) as recommended by the manufacturer. In addition, the Permittee shall perform, at a minimum, an annual (for each 12-month period following the initial inspection) internal inspection of each scrubber system.

Recordkeeping [15A NCAC 02Q .0308(a)]

b. The results of all inspections and any variance from manufacturer's recommendations or from those given in this permit (when applicable) shall be investigated with corrections made and dates of actions recorded in a logbook. Records of all maintenance activities shall be recorded in the logbook. The logbook (in written or electronic format) shall be kept on-site and made available to DAQ personnel upon request.

B. Internal Combustion Sources:

Emergency Generators 1 through 11 (ID Nos. ES-GEN1, ES-GEN2, ES-GEN3, ES-GEN4, ES-GEN5, ES-GEN6, ES-GEN7, ES-GEN8, ES-GEN9, ES-GEN10, and ES-GEN11)

Emergency Condenser Water Pumps 1 through 4 (ID Nos. ES-PCW1, ES-PCW2, ES-PCW3, and ES-PCW4)

Emergency Primary Water Pumps 1 through 6 (ID Nos. ES-PCW5, ES-PCW6, ES-PCW7, ES-PCW8, ES-PCW9, and ES-PCW10)

Emergency Fire Pump (ID No. ES-FPUMP)

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

Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu heat input **(ID Nos. All emissions sources included in Section 2.1 B)**	15A NCAC 02D .0516
Visible emissions	20 percent opacity **(ID Nos. All emissions sources included in Section 2.1 B)**	15A NCAC 02D .0521
Nitrogen Oxides Carbon Monoxide Particulate Matter	**See Sections 2.1 B.3 and 2.1 B.4 (ID Nos. All emissions sources included in Section 2.1 B)**	15A NCAC 02D .0524 (NSPS Subpart IIII)
-	**See Section 2.2 A.1 (ID Nos. All emissions sources included in Section 2.1 B)**	15A NCAC 02D .0535
Hazardous Air Pollutants	**See Section 2.1 B.5 (ID Nos. All emissions sources included in Section 2.1 B)**	15A NCAC 02D .1111 (MACT Subpart ZZZZ)
Odor	**See Section 2.2 A.3 (All emissions sources included in Section 2.1 B)**	15A NCAC 02D .1806
-	**See Section 2.2 A.5 (All emissions sources included in Section 2.1 B)**	15A NCAC 02Q .0504
Toxic Air Pollutants	**See Section 2.2 A.6 (All emissions sources included in Section 2.1 B)**	15A NCAC 02Q .0711
-	**See Section 2.2 A.7**	15A NCAC 02Q .0304(d) and (f)
-	**See Section 2.2 A.8**	15A NCAC 02Q .0207
-	**See Section 2.2 A.9**	NCGS §143-215.108(d)(1) and 15A NCAC 02Q .0308(a)(1)

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

a. Emissions of sulfur dioxide from these sources **(ID Nos. ES-GEN1 through ES-GEN11, ES-PCW1 through ES-PCW10, and ES-FPUMP)** shall not exceed 2.3 pounds per million Btu heat input each. 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 .0308(a)]

b. If emissions testing is required, the testing shall be performed in accordance with General Conditions in Section 3.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0308(a)]

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of diesel fuel in these sources **(ID Nos. ES-GEN1 through ES-GEN11, ES-PCW1 through ES-PCW10, and ES-FPUMP)**.

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

a. Visible emissions from these sources **(ID Nos. ES-GEN1 through ES-GEN11, ES-PCW1 through ES-PCW10, and ES-FPUMP)** 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 .0308(a)]

b. If emissions testing is required, the testing shall be performed in accordance with General Conditions in Section 3.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0308(a)]

c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of diesel fuel in these sources **(ID Nos. ES-GEN1 through ES-GEN11, ES-PCW1 through ES-PCW10, and ES-FPUMP)**.

3. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS

Applicability [40 CFR 60.4200(a)(2)(i)]

a. For the engines **(ID Nos. ES-GEN1 through ES-GEN11 and ES-PCW1 through ES-PCW10)**, 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 "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines" including Subpart A "General Provisions."

Definitions and Nomenclature

b. For the purposes of this permit condition, the definitions and nomenclature contained in 40 CFR 60.4219 shall apply.

General Provisions

c. 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. [40 CFR 60.4218]

Emission Standards [40 CFR 60.4205(b)]

d. The Permittee shall comply with the emission standards 40 CFR 60.4202 for all pollutants, for the same model year and maximum engine power for these engines.

Fuel Requirements [40 CFR 60.4207(b)]

e. The Permittee shall use diesel fuel in each engine that meets the requirements of 40 CFR 1090.305 including:
   i. a maximum sulfur content of 15 ppm; and
   ii. a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.

Testing [15A NCAC 02Q .0308(a)(1)]

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

Monitoring [40 CFR 60.4209(a) and (b)]

g. The engines have the following monitoring requirements:
   i. The engines shall be equipped with a non-resettable hour meter prior to startup.
   ii. Each 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.

Compliance Requirements [15A NCAC 02Q .0308(a)(1)]

h. The Permittee shall:
   i. operate and maintain the engines and control devices according to the manufacturer's emission-related written instructions over the entire life of each 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)]

i. The Permittee shall comply with the emissions standards in Section 2.1 B.3.d by purchasing engines certified to the emission standards in Section 2.1 B.3.d for the same model year and maximum engine power. The engines shall be installed and configured according to the manufacturer's emission-related specifications. [40 CFR 60.4211(c)]

j. In order for each engine to be considered an emergency stationary internal combustion engine (ICE) as defined in Section 2.1 B.3.b, 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) below 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 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)]

Recordkeeping [15A NCAC 02Q .0308(a)(1)]

k. The following records shall be maintained:
   i. The results of inspection and maintenance made pursuant to Section 2.1 B.3.h 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:
      (A) the date and time of each recorded action;
      (B) the results of each inspection;
      (C) the results of any maintenance performed on each engine;
      (D) any variance from manufacturer's recommendations, if any, and corrections made;
      (E) 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)]; and
      (F) if a PM filter is used, records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached [40 CFR 60.4214(c)];
   ii. documentation from the manufacturer that each engine is certified to meet the emission standards in Section 2.1 B.3.d; and
   iii. records showing the fuel combusted meets the requirements in Section 2.1 B.3.e.

Reporting [15A NCAC 02Q .0308(a)(1), 40 CFR 60.4214(d)]

l. The Permittee shall meet the following reporting requirements:
   i. 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.
   ii. If the Permittee owns or operates an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates for the purposes specified in Section 2.1 B.3.j.iii(A), 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 directly to the EPA pursuant to 40 CFR 60.4214(d)(3). [40 CFR 60.4214(d)]

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

Applicability [40 CFR 60.4200(a)(2)(i)]

a. For the fire pump engine **(ID No. ES-FPUMP)**, 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 "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines" including Subpart A "General Provisions."

Definitions and Nomenclature

b. For the purposes of this permit condition, the definitions and nomenclature contained in 40 CFR 60.4219 shall apply.

General Provisions

c. 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. [40 CFR 60.4218]

Emission Standards [40 CFR 60.4205(c)]

d. The Permittee shall comply with the emission standards 40 CFR 60.4202 for all pollutants, for the same model year and maximum engine power for this engine.

Fuel Requirements [40 CFR 60.4207(b)]

e. The Permittee shall use diesel fuel in the engine that meets the requirements of 40 CFR 1090.305 including:
   i. a maximum sulfur content of 15 ppm; and
   ii. a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.

Testing [15A NCAC 02Q .0308(a)(1)]

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

Monitoring [40 CFR 60.4209(a) and (b)]

g. The engine has the following monitoring requirements:
   i. The engine shall be equipped with a non-resettable hour meter prior to startup.
   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.

Compliance Requirements [15A NCAC 02Q .0308(a)(1)]

h. The Permittee shall:
   i. operate and maintain the engines and control devices according to the manufacturer's emission-related written instructions over the entire life of each 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)]

i. The Permittee shall comply with the emissions standards in Section 2.1 B.4.d by purchasing an engine certified to the emission standards in Section 2.1 B.4.d for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's emission-related specifications. [40 CFR 60.4211(c)]

j. In order for each engine to be considered an emergency stationary internal combustion engine (ICE) as defined in Section 2.1 B.4.b, 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) below 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 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)]

Recordkeeping [15A NCAC 02Q .0308(a)(1)]

k. The following records shall be maintained:
   i. The results of inspection and maintenance made pursuant to Section 2.1 B.4.h 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:
      (A) the date and time of each recorded action;
      (B) the results of each inspection;
      (C) the results of any maintenance performed on each engine;
      (D) any variance from manufacturer's recommendations, if any, and corrections made;
      (E) 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)]; and
      (F) if a PM filter is used, records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached [40 CFR 60.4214(c)];
   ii. documentation from the manufacturer that each engine is certified to meet the emission standards in Section 2.1 B.4.d; and
   iii. records showing the fuel combusted meets the requirements in Section 2.1 B.4.e.

Reporting [15A NCAC 02Q .0308(a)(1), 40 CFR 60.4214(d)]

l. The Permittee shall meet the following reporting requirements:
   i. 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.
   ii. If the Permittee owns or operates an emergency stationary CI ICE with a maximum engine power more than

100 HP that operates for the purposes specified in Section 2.1 B.4.j.iii(A), 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 directly to the EPA pursuant to 40 CFR 60.4214(d)(3). [40 CFR 60.4214(d)]

5. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

a. For the emergency generators **(ID Nos. ES-GEN1 through ES-GEN11)**, emergency condenser water pumps **(ID Nos. ES-PCW1 through ES-PCW4)**, emergency primary water pumps **(ID Nos. ES-PCW5 through ES-PCW10)**, and emergency fire pump **(ID No. ES-FPUMP)**, classified as new stationary reciprocating internal combustion engines located at an area source of HAP emissions, the Permittee shall comply with all applicable provisions, including notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .1111, as promulgated in 40 CFR 63, Subpart ZZZZ – "National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines", including Subpart A "General Provisions".

b. In accordance with 40 CFR 63.6590(c)(1), these sources shall meet the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A by meeting the requirements of 40 CFR 60 Subpart IIII for compression ignition engines. No further requirements apply for such engines under 40 CFR 63 Subpart ZZZZ or Subpart A.

C. Miscellaneous Sources: Diesel Fuel Tank (ID No. ES-TANK1)

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

Pollutant	Limits/Standards	Applicable Regulation
-	**See Section 2.2 A.1**	15A NCAC 02D .0535
Odor	**See Section 2.2 A.3**	15A NCAC 02D .1806
-	**See Section 2.2 A.5**	15A NCAC 02Q .0504
Toxic Air Pollutants	**See Section 2.2 A.6**	15A NCAC 02Q .0711
-	**See Section 2.2 A.7**	15A NCAC 02Q .0304(d) and (f)
-	**See Section 2.2 A.8**	15A NCAC 02Q .0207
-	**See Section 2.2 A.9**	NCGS §143-215.108(d)(1) and 15A NCAC 02Q .0308(a)(1)

2.2 Multiple Emission Source(s) Specific Limitations and Conditions

A. Facility-wide Affected Sources

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

Pollutant	Limits/Standards	Applicable Regulation
-	**See Section 2.2 A.1**	15A NCAC 02D .0535
Toxic air pollutants	**See Section 2.2 A.2**	15A NCAC 02D .1100
Odor	**See Section 2.2 A.3**	15A NCAC 02D .1806
Hazardous air pollutants	**See Section 2.2 A.4**	15A NCAC 02Q .0317 (Avoidance of MACT)
-	**See Section 2.2 A.5**	15A NCAC 02Q .0504
Toxic air pollutants	**See Section 2.2 A.6**	15A NCAC 02Q .0711
-	**See Section 2.2 A.7**	15A NCAC 02Q .0304(d) and (f)
-	**See Section 2.2 A.8**	15A NCAC 02Q .0207
-	**See Section 2.2 A.9**	NCGS §143-215.108(d)(1) and 15A NCAC 02Q .0308(a)(1)

1. 15A NCAC 02D .0535: EXCESS EMISSIONS REPORTING AND MALFUNCTIONS

Reporting Requirements for Excess Emissions [15A NCAC 02D .0535(f) and 02Q .0308(a)]

a. 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.

b. 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:

i. 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:

(A) 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:
(1) name and location of the facility;
(2) nature and cause of the malfunction or breakdown;
(3) time when the malfunction or breakdown is first observed;
(4) expected duration; and
(5) estimated rate of emissions;

(B) notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and

(C) submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

This reporting requirement does not allow the operation of the facility in excess of Environmental Management Commission Regulations.

2. 15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS

a. Pursuant to 15A NCAC 02D .1100 and in accordance with the approved application 1900138.22A for an air toxic compliance demonstration, the following permit limits shall not be exceeded:

Source ID No. and Description	Modeled ID No.	Emission Rates								
		Hydrogen Chloride (lb/hr)	Hydrogen Fluoride		Sulfuric Acid (lb/hr)		Arsenic	Benzene	Beryllium	Cadmium
			(lb/hr)	(lb/day)	(lb/hr)	(lb/day)	(lb/yr)	(lb/yr	(lb/yr)	(lb/yr)
Wafer Production	SCRUB1	1.29E-01	1.24E-01	2.98	8.89E-02	2.13	-	-	-	-

Source ID No. and Description	Modeled ID No.	Emission Rates								
		Hydrogen Chloride (lb/hr)	Hydrogen Fluoride		Sulfuric Acid (lb/hr)		Arsenic	Benzene	Beryllium	Cadmium
			(lb/hr)	(lb/day)	(lb/hr)	(lb/day)	(lb/yr)	(lb/yr	(lb/yr)	(lb/yr)
Operations (ID No. ES-WAFEROP)	SCRUB2	1.29E-01	1.24E-01	2.98	8.89E-02	2.13	-	-	-	-
	SCRUB3	1.27E-02	1.27E-02	0.30	8.73E-03	0.02	-	-	-	-
	SCRUB4	1.19E-03	1.11E-03	0.03	7.94E-04	0.02	-	-	-	-
Gas Abatement System (ID No. CD-1j) and Miscellaneous Natural Gas-Fired Appliances (ID No. ES-NGMISC)	SCRUB1	-	-	-	-	-	3.79E-07	3.98E-06	2.28E-08	2.09E-06
	SCRUB2	-	-	-	-	-	3.79E-07	3.98E-06	2.28E-08	2.09E-06
	SCRUB3	-	-	-	-	-	3.79E-07	3.98E-06	2.28E-08	2.09E-06
	SCRUB4	-	-	-	-	-	3.79E-07	3.98E-06	2.28E-08	2.09E-06

Operating Limitations [15A NCAC 02Q .0308(a)]

b. The facility shall be constructed and operated in accordance with the approved dispersion modeling, and shall reflect the hours of operation and all stack parameters (e.g. source location, stack height, stack diameter, exit temperature, and flow rate) assumed in the approved modeling.

c. The Permittee shall comply with the operating limitations given in Section 2.2 A.4.b below.

Testing [15A NCAC 02Q .0308(a)]

d. The Permittee shall conduct stack testing according to the requirements listed under Section 2.1 A.4 of this permit above.

Monitoring [15A NCAC 02Q .0308(a)]

e. The Permittee shall comply with the monitoring requirements given in Section 2.2 A.4.d through f, below.

f. The Permittee shall replace the reference for "HAP" with "TAP" in Section 2.2 A.4.g below, and conduct the monitoring as included therein for TAPs emissions to ensure compliance with the requirements in 15A NCAC 02D .1100.

g. No monitoring is required for arsenic, benzene, beryllium, or cadmium emissions from the combustion of natural gas in the gas abatement system **(ID No. CD-1j)** or in the miscellaneous natural gas-fired appliances **(ID No. ES-NGMISC)**.

Recordkeeping [15A NCAC 02Q .0308(a)]

h. The Permittee shall comply with the recordkeeping requirements given in Section 2.2 A.4.h through k.

i. The Permittee shall replace the reference for "HAP" with "TAP" in Sections 2.2 A.4.l and m below, and conduct the recordkeeping as included therein for TAPs emissions to ensure compliance with the requirements in 15A NCAC 02D .1100.

j. The Permittee shall calculate, on a monthly basis, actual daily and hourly (as applicable) TAP emissions using mass balance procedures in conjunction with the product usage and purchase records, and the application of control efficiencies, as applicable, for the wet acid gas scrubbers **(ID Nos. CD-1a, CD-1b, CD-1c, and CD-1d)**. The following general approach shall be used for calculations of emissions of TAPs from the wafer production operations **(ID No. ES-WAFEROP)**.

Parameter Number	Parameter	Value
P1	Assumed Scrubber Control Efficiency	90%

P2	Evaporation of liquid H_2SO_4 from use in wafer production	5%
P3	Evaporation of liquid H_2SO_4 from use in scrubbers	1%
P4	Evaporation of liquid HCl from use in wafer production	5%
P5	Emission of gaseous HCl from gas abatement system	50%
P6	Evaporation of liquid HF from use in wafer production	5%

Actual Hourly Hydrogen Chloride (HCl) Emissions (Equation 1)

Actual Hourly HCl Emissions (lb/hr) =

{[(Quantity of HCl-Containing Liquid Used in Wafer Production Operation (gallons/day)) x (Density of HCl-Containing Liquid (lb/gallon)) x (HCl Content (%weight)) x (P4)] + [(Quantity of HCl-Containing Gas Used in Scrubbers (lbs/day)) x (P5)]} x (1 – (P1)) / (hours per day of operation of wafer production operations **(ES-WAFEROP)**)

Actual Daily Hydrogen Fluoride (HF) Emissions (Equation 2)

Actual Daily HF Emissions (lb/day) =

[(Quantity of HF-Containing Liquid Used in Wafer Production Operation (gallons/day)) x (Density of HF-Containing Liquid (lb/gallon)) x (HF Content (%weight)) x (P6)] x (1 – (P1))

Actual Hourly Hydrogen Fluoride (HF) Emissions (Equation 3)

Actual Hourly HF Emissions (lb/hr) =

(Equation 2) / (hours per day of operation of wafer production operations **(ES-WAFEROP)**)

Actual Daily Sulfuric Acid (H_2SO_4) Emissions (Equation 4)

Actual Daily H_2SO_4 Emissions (lb/day) =

{[(Quantity of H_2SO_4-Containing Liquid Used in Wafer Production Operation (gallons/day)) x (Density of H_2SO_4-Containing Liquid (lb/gallon)) x (H_2SO_4 Content (%weight)) x (P2)] + [(Quantity of H_2SO_4-Containing Liquid Used in Scrubbers (gallons/day)) x (Density of H_2SO_4-Containing Liquid (lb/gallon) x (H_2SO_4 Content (%weight)) x (P3)]} x (1 – (P1))

Actual Hourly Sulfuric Acid (H_2SO_4) Emissions (Equation 5)

Actual Hourly H2SO4 Emissions (lb/hr) =

(Equation 4) / (hours per day of operation of wafer production operations **(ES-WAFEROP)**)

k. Until the stack testing required in Section 2.1 A.4 above is conducted and the test results are approved by DAQ, the Permittee shall assume in the emissions calculations in Section 2.2 A.2.j above the control efficiency of the wet acid gas scrubbers **(ID Nos. CD-1a, CD-1b, CD-1c, and CD-1d)** as included therein. After the stack testing required in Section 2.1 A.4 above is conducted, the Permittee shall submit a permit application to DAQ for revising the assumed control efficiency before it can be used in emissions calculations in Section 2.2 A.2.j above.

l. No recordkeeping is required for arsenic, benzene, beryllium, or cadmium emissions from the combustion of natural gas in the gas abatement system **(ID No. CD-1j)** or in the miscellaneous natural gas-fired appliances **(ID No. ES-NGMISC)**.

Reporting [15A NCAC 02Q .0308(a)]

m. The Permittee shall submit the results of any maintenance or repairs performed on any control device within 30 days of a written request by the DAQ.

n. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of each of the monitoring and recordkeeping activities specified in Sections 2.2 A.2.e through l 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. The report shall contain the highest hourly and highest daily (if applicable) HCl, HF, and H_2SO_4 emissions for each month of the reporting period.

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.

4. 15A NCAC 02Q .0317 AVOIDANCE CONDITIONS for
15A NCAC 02D .1111 MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

a. To avoid applicability of 15A NCAC 02D .1111, the Permittee shall limit the facility-wide (all sources including insignificant activities) emissions of any single HAP and aggregate HAPs to less than 10 tons per consecutive 12-months period and 25 tons per consecutive 12-months period, respectively.

Operating Limitations [15A NCAC 02Q .0308(a)]

b. Emissions shall be controlled as described in the permitted equipment list. The Permittee shall operate and maintain the wet acid gas scrubbers **(ID Nos. CD-1a, CD-1b, CD-1c, and CD-1d)** and gas abatement system **(ID No. CD-1j)** according to the manufacturer's specifications.

Testing [15A NCAC 02Q .0308(a)]

c. The Permittee shall conduct stack testing according to the requirements listed under Section 2.1 A.4 of this permit.

Monitoring [15A NCAC 02Q .0308(a)]

d. To ensure compliance with the above limits, the Permittee shall perform inspections and maintenance on the wet acid gas scrubbers **(ID Nos. CD-1a, CD-1b, CD-1c, and CD-1d)** as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. a monthly visual inspection of the system ductwork and each scrubber unit for leaks; and
   ii. an annual (for each 12-month period following the initial inspection) internal inspection of each wet scrubber.

e. The Permittee shall install, calibrate, operate, maintain, and inspect continuous parametric monitoring instruments in accordance with manufacturer's recommendations for each of the wet acid gas scrubbers **(ID Nos. CD-1a, CD-1b, CD-1c, and CD-1d)**. The Permittee shall continuously monitor the liquid injection rate, differential pressure drop, and scrubber liquid pH of each of the wet acid gas scrubbers.

f. The Permittee shall monitor the hours of operation for each day the wafer production operations **(ID No. ES-WAFEROP)** and the associated wet acid gas scrubbers **(ID Nos. CD-1a, CD-1b, CD-1c, and CD-1d)** and gas abatement system **(ID No. CD-1j)** are operating.

g. Once stack testing under Section 2.1 A.4 of this permit, has established the operating parameters including liquid injection rate, differential pressure drop, and scrubber liquid pH of the wet acid gas scrubbers **(ID Nos. CD-1a, CD-1b, CD-1c, and CD-1d)**, the Permittee shall maintain the liquid injection rate, differential pressure drop, and scrubber liquid pH of each wet scrubber at or above the minimum operating limit established during the latest performance test when averaged over a 3-hour block period. If any 3-hour block average liquid injection rate, differential pressure drop, or scrubber liquid pH of a wet acid gas scrubber falls below the minimum operating limit established for this parameter in Section 2.2 A.4.e above, the Permittee shall assume zero control efficiency for that scrubber during that time period for the purposes of HAP emissions calculations given in Section 2.2 A.4.n below.

Recordkeeping [15A NCAC 02Q .0308(a)]

h. The results of all inspections on the wet acid gas scrubbers **(ID Nos. CD-1a, CD-1b, CD-1c, and CD-1d)** and any variance from manufacturer's recommendations or from those given in this permit (when applicable) shall be investigated with corrections made and dates of actions recorded in a logbook. Records of all maintenance activities shall be recorded in a logbook. The logbook (in written or electronic format) shall be kept on-site and made available to DAQ personnel upon request.

i. The Permittee shall maintain a logbook (written or electronic format) on-site, containing daily hours of operation for the wafer production operations **(ID No. ES-WAFEROP)** and associated wet acid gas scrubbers **(ID Nos. CD-1a, CD-1b, CD-1c, and CD-1d)** and gas abatement system **(ID No. CD-1j)**, and any non-operational hours of the wet acid gas scrubbers (i.e. off-line hours due to maintenance and repairs), and the total hours on a monthly basis of all above listed equipment. The Permittee shall make the above records available to DAQ upon request.

j. Until the stack testing required in Section 2.1 A.4 above is conducted and the test results are approved by DAQ, the Permittee shall operate the wet acid gas scrubbers **(ID Nos. CD-1a, CD-1b, CD-1c, and CD-1d)** at setpoints (liquid injection rate, differential pressure drop, and scrubber liquid pH) as recommended by the equipment manufacturer(s).

k. The Permittee shall maintain daily records of the hourly values of the following operational parameters in a logbook (written or electronic format) on-site and made available to an authorized representative upon request:
   i. Liquid injection rates in each scrubber;
   ii. Differential pressures across each scrubber; and
   iii. Scrubber liquid pH values for each scrubber.

l. The Permittee shall maintain a logbook (written or electronic format) on-site containing purchase orders, invoices, or similar documentation for all HAP-containing materials used in the wafer production operations **(ID No. ES-WAFEROP)** and associated wet acid gas scrubbers **(ID Nos. CD-1a, CD-1b, CD-1c, and CD-1d)** and gas abatement system **(ID No. CD-1j)**, along with current SDS, and make them available for inspection by the DAQ.

m. The Permittee shall maintain a logbook (written or electronic format) on-site, containing the amount and type of each HAP-containing material used in the wafer production operations **(ID No. ES-WAFEROP)** and associated wet acid gas scrubbers **(ID Nos. CD-1a, CD-1b, CD-1c, and CD-1d)** and gas abatement system **(ID No. CD-1j)** on a monthly basis, and make it available to DAQ upon request.

n. The Permittee shall calculate monthly HAP emissions using mass balance procedures in conjunction with the product usage and purchase records, and the application of control efficiencies, as applicable, for the wet acid gas scrubbers **(ID Nos. CD-1a, CD-1b, CD-1c, and CD-1d)**. The following general approach shall be used for calculations of emissions of HAPs from the wafer production operations **(ID No. ES-WAFEROP)**.

Monthly Total Facility-wide HAP Emissions

Monthly Total Facility-wide HAP Emissions (ton/month) =

[Monthly Hydrogen Chloride Emissions (ton/month)] + [Monthly Hydrogen Fluoride Emissions (ton/month)] + [Monthly Chlorine Emissions (ton/month)] + [Monthly HAP Emissions from Other Permitted Sources (ton/month)]

The Permittee shall determine 12-month rolling individual HAP emissions by summing the individual HAP emissions from the current month with the individual HAP emissions from the previous 11 months. The Permittee shall determine the 12-month rolling aggregate HAP emissions by summing the total facility-wide HAP emissions from the current month with the total facility-wide HAP emissions from the previous 11 months. Each of the individual HAP emissions and each component of the Monthly Total Facility-wide HAP Emissions in the formula above shall be calculated using the following equations as well as the parameters presented in the table below.

Parameter Number	Parameter	Value
P1	Assumed Scrubber Control Efficiency	90%
P2	Evaporation of liquid HCl from use in wafer production	5%
P3	Emission of gaseous HCl from gas abatement system	50%
P4	Evaporation of liquid HF from use in wafer production	5%
P5	Emission of gaseous Cl_2 from gas abatement system	50%

Monthly Hydrogen Chloride (HCl) Emissions (Equation 6)

Monthly HCl Emissions (ton/month) =

{[(Quantity of HCl-Containing Liquid Used in Wafer Production Operation (gallons/month)) x (Density of HCl-Containing Liquid (lb/gallon)) x (HCl Content (%weight)) x (P2)] + [(Quantity of HCl-Containing Gas Used in Gas Abatement System (lbs/month)) x (P3)]} x (1 – (P1)) / (2,000 lbs/ton)

Monthly Hydrogen Fluoride (HF) Emissions (Equation 7)

Monthly HF Emissions (ton/month) =

[(Quantity of HF-Containing Liquid Used in Wafer Production Operation (gallons/month)) x (Density of HF-Containing Liquid (lb/gallon)) x (HF Content (%weight)) x (P4)] x (1 – (P1)) / (2,000 lbs/ton)

Monthly Chlorine (Cl_2) Emissions (Equation 8)

Monthly Cl_2 Emissions (ton/month) =

[(Quantity of HF-Containing Gas Used in Gas Abatement System (lbs/month)) x (P5)] x (1 – (P1)) / (2,000 lbs/ton)

Monthly HAP Emissions from Other Permitted Sources (i.e. Diesel Fuel and Natural Gas Combustion)

The Permittee shall use the default total emission rate of 0.02 tons per month for HAPs from all other permitted sources including all natural gas and diesel-fired combustion sources to calculate the monthly facility-wide HAP emissions.

o. Until the stack testing required in Section 2.1 A.4 above is conducted and the test results are approved by DAQ, the Permittee shall assume in the emissions calculations in Section 2.2 A.4.n above the control efficiency of the wet acid gas scrubbers **(ID Nos. CD-1a, CD-1b, CD-1c, and CD-1d)** as included therein. After the stack testing required in Section 2.1 A.4 above is conducted, the Permittee shall submit a permit application to DAQ for revising the assumed scrubber control efficiencies before it can be used in emissions calculations in Section 2.2 A.4.n above.

p. The Permittee shall comply with the applicable recordkeeping requirements in 40 CFR 63.10(b)(3). The Permittee shall keep records for the applicability determination for non-applicability of major source standard in 40 CFR 63 Subpart BBBBB "National Emission Standards for Hazardous Air Pollutants for Semiconductor Manufacturing". The applicability determination must be kept on site until the source changes its operations to become an affected source subject to the relevant standard such as Subpart BBBBB (or other requirement established under this Part). The record of the applicability determination shall be signed by the person making the determination and include an emissions analysis (or other information) that demonstrates the Permittee's conclusion that the source is unaffected (*e.g.*, because the source is an area source). The analysis (or other information) shall be sufficiently detailed to allow the DAQ Director to make an applicability finding for the source with regard to the relevant standard or other requirement. If applicable, the analysis shall be performed in accordance with requirements established in relevant Subpart of 40 CFR for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with EPA guidance materials published to assist sources in making applicability determinations under section 112 of the Act, if any.

Reporting [15A NCAC 02Q .0308(a)]

q. The Permittee shall submit the results of any maintenance or repairs performed on any control device within 30 days of a written request by the DAQ.

r. The Permittee shall comply with the notification requirements in 40 CFR 63.9(b)(1)(ii), (j) and (k), as applicable.

s. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of each of the monitoring and recordkeeping activities specified in Section 2.2 A.4.d though p 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. With regard to HAP emissions, the report shall contain the monthly HAP emissions (both single and aggregate) for the previous 17 months for the facility wide sources listed and their total emissions, for each of the 12-month periods over the previous 17 months.

5. 15A NCAC 02Q .0504: OPTION FOR OBTAINING CONSTRUCTION AND OPERATION PERMIT

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

a. Pursuant to 15A NCAC 02Q .0501(b)(2), the Permittee shall file an application for wafer production emission sources **(ID Nos. ES-WAFEROP, ES-SW, ES-VAC, and ES-NGMISC)** and associated control devices **(ID Nos. CD-1a, 1b, 1c, 1d, 1e, 1f, 1g, 1h, and 1j)**, emergency engines **(ID Nos. ES-GEN1 through ES-GEN11, ES-PCW1 through ES-PCW10, and ES-FPUMP)**, and all other miscellaneous and/or insignificant activities **(ID No. ES-TANK1)**, following the procedures of Section 15A NCAC 02Q .0500, within one year from the date of beginning of operation any of the above sources, based upon whichever source commences operation first.

Reporting [15A NCAC 02Q .0308(a)]

b. The Permittee shall notify the Regional Office in writing of the beginning of operation of listed sources in Section 2.2 A.5.a above, postmarked no later than 30 days after such date.
c. The Permittee shall submit to the DAQ sufficient design data for the emissions control systems included in the application (i.e., wet acid gas scrubbers, wet solvent scrubbers, and gas abatement system) for proper evaluation of environmental performance, before commencing construction of any wafer production sources. DAQ may require a permit revision, if appropriate, upon its review of the design parameters of these environmental controls.

6. 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.

Pollutant	CAS No.	Carcinogens (lb/yr)	Chronic Toxicant (lb/day)	Acute Systemic Toxicants (lb/hr)	Acute Irritants (lb/hr)
Acetaldehyde	75-07-0				28.43
Acrolein	107-02-8				0.08
Benzo(a)pyrene	50-32-8	3.044			
Chlorine	7782-50-5		1.6		0.95
Soluble chromate compounds, as chromium (VI) equivalent			2.6×10^{-2}		
p-Dichlorobenzene	106-46-7				69.50
Formaldehyde	50-00-0				0.16
n-Hexane	110-54-3		46.3		
Manganese and compounds			1.3		
Mercury, vapor	7439-97-6		2.5×10^{-2}		
Nickel metal	7440-02-0		0.3		
Nitric Acid	7697-37-2				1.05
Toluene	108-88-3		197.96		58.97
Xylene	1330-20-7		113.7		68.44

7. 15A NCAC 02Q .0304(d) and (f): PERMIT RENEWAL REQUIREMENT

a. The Permittee, at least 90 days prior to the expiration date of this permit, shall request permit renewal by letter in accordance with 15A NCAC 2Q .0304(d) and (f). Pursuant to 15A NCAC 2Q .0203(i), no permit application fee is required for renewal of an existing air permit (without a modification request). The renewal request (with application Form A) should be submitted to the Regional Supervisor, DAQ.

8. 15A NCAC 02Q .0207: ANNUAL EMISSION INVENTORY REQUIREMENT

a. As required by 15A NCAC 02Q .0207 “Annual Emissions Reporting”, 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.

State-enforceable only

9. 15A NCAC 02Q .0308(a) and .0309(b): DISCLOSURE OF INFORMATION RELATING TO EMISSIONS OF FLUORINATED CHEMICALS

a. The Permittee shall have an ongoing duty to disclose the presence of materials containing fluorinated chemicals at the facility that have the potential to result in the emission of fluorinated chemicals to the environment. Such disclosures shall be in writing and submitted to the Regional Office Supervisor within thirty days of the Permittee becoming aware of such information, unless such information has already been disclosed to DAQ by the Permittee. The disclosure shall describe the identity, quantity, and use of such material to the extent known. DAQ may require the permittee to conduct analysis or testing of fluorinated chemical emissions as necessary to properly evaluate emissions sources at the facility. As used in this condition, the term "fluorinated chemicals" includes but is not limited to per- and polyfluoroalkyl substances (PFAS).

2.3 Other Applicable Requirements

A. Facility-Wide Affected Sources

1. 15A NCAC 02D .2100: RISK MANAGEMENT PROGRAM SECTION 112(r) OF THE CLEAN AIR ACT – PREVENTION OF ACCIDENTAL RELEASES

a. The Permittee shall comply with all applicable requirements in accordance with 40 CFR Part 68 including submitting a Risk Management Plan to EPA pursuant to 40 CFR 68.150 or as specified in 40 CFR 68.10.

SECTION 3 - GENERAL CONDITIONS

1. In accordance with G.S. 143-215.108(c)(1), TWO COPIES OF ALL DOCUMENTS, REPORTS, TEST DATA, MONITORING DATA, NOTIFICATIONS, REQUESTS FOR RENEWAL, AND ANY OTHER INFORMATION REQUIRED BY THIS PERMIT shall be submitted to the:

   Regional Supervisor
   North Carolina Division of Air Quality
   Raleigh Regional Office
   3800 Barrett Drive
   Raleigh, NC 27609
   919-791-4200

   For identification purposes, each submittal should include the facility name as listed on the permit, the facility identification number, and the permit number.

2. RECORDS RETENTION REQUIREMENT - In accordance with 15A NCAC 2D .0605, any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. These records must be kept on site for a minimum of 2 years, unless another time period is otherwise specified.

3. ANNUAL FEE PAYMENT - Pursuant to 15A NCAC 2Q .0203(a), the Permittee shall pay the annual permit fee within 30 days of being billed by the DAQ. Failure to pay the fee in a timely manner will cause the DAQ to initiate action to revoke the permit.

4. EQUIPMENT RELOCATION - In accordance with 15A NCAC 2Q .0301, a new air permit shall be obtained by the Permittee prior to establishing, building, erecting, using, or operating the emission sources or air cleaning equipment at a site or location not specified in this permit.

5. REPORTING REQUIREMENT - In accordance with 15A NCAC 2Q .0309, any of the following that would result in previously unpermitted, new, or increased emissions must be reported to the Regional Supervisor, DAQ:

   a. changes in the information submitted in the application regarding facility emissions;

   b. changes that modify equipment or processes of existing permitted facilities; 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.

6. In accordance with 15A NCAC 2Q .0309, this permit is subject to revocation or modification by the DAQ upon a determination that information contained in the application or presented in the support thereof is incorrect, conditions under which this permit was granted have changed, or violations of conditions contained in this permit have occurred. In accordance with G.S. 143-215.108(c)(1), the facility shall be properly operated and maintained at all times in a manner that will effectuate 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 cleaning device(s) and appurtenances.

7. CHANGES NOT REQUIRING PERMIT REVISIONS - Pursuant to 15A NCAC 02Q .0318, changes to the facility that are not exempt pursuant to 15A NCAC 02Q .0102 may be allowed without first modifying an applicable air permit if the change(s) meet(s) the requirements of 15A NCAC 02Q .0318(b)(1) through (b)(5) and the owner or operator notifies the Director in writing, using forms provided by the Division, seven calendar days before the change is made. Within 10 business days of receipt of the notice, the Division shall notify the owner or operator of its determination of whether the change(s) meet(s) the requirements of 15A NCAC 02Q .0318(b)(1) through (b)(5).

8. In accordance with G.S. 143-215.108(c)(1), this permit is nontransferable by the Permittee. Future owners and operators

must obtain a new air permit from the DAQ.

9. In accordance with G.S. 143-215.108(c)(1), this issuance of this permit in no way absolves the Permittee of liability for any potential civil penalties which may be assessed for violations of State law which have occurred prior to the effective date of this permit.

10. In accordance with G.S. 143-215.108(c)(1), this permit does not relieve the Permittee of the responsibility of complying with all applicable requirements of any Federal, State, or Local water quality or land quality control authority.

11. In accordance with 15A NCAC 2D .0605, reports on the operation and maintenance of the facility shall be submitted by the Permittee to the Regional Supervisor, DAQ at such intervals and in such form and detail as may be required by the DAQ. Information required in such reports may include, but is not limited to, process weight rates, firing rates, hours of operation, and preventive maintenance schedules.

12. A violation of any term or condition of this permit shall subject the Permittee to enforcement pursuant to G.S. 143-215.114A, 143-215.114B, and 143-215.114C, including assessment of civil and/or criminal penalties.

13. Pursuant to North Carolina General Statute 143-215.3(a)(2), no person shall refuse entry or access to any authorized representative of the DAQ who requests entry or access for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such 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.

14. In accordance with G.S. 143-215.108(c)(1), this permit does not relieve the Permittee of the responsibility of complying with any applicable Federal, State, or Local requirements governing the handling, disposal, or incineration of hazardous, solid, or medical wastes, including the Resource Conservation and Recovery Act (RCRA) administered by the Division of Waste Management.

15. PERMIT RETENTION REQUIREMENT - In accordance with 15A NCAC 2Q .0110, the Permittee shall retain a current copy of the air permit at the site. The Permittee must make available to personnel of the DAQ, upon request, the current copy of the air permit for the site.

16. CLEAN AIR ACT SECTION 112(r) REQUIREMENTS - Pursuant to 15A NCAC 2D .2100 "Risk Management Program," if the Permittee is required to develop and register a risk management plan pursuant to Section 112(r) of the Federal Clean Air Act, then the Permittee is required to register this plan with the USEPA in accordance with 40 CFR Part 68.

17. GENERAL EMISSIONS TESTING AND REPORTING REQUIREMENTS - If emissions testing is required by this permit, or the DAQ, or if the Permittee submits emissions testing to the DAQ in support of a permit application or to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2600 and follow all DAQ procedures including protocol approval, regional notification, report submittal, and test results approval. Additionally, in accordance with 15A NCAC 2D .0605, the Permittee shall follow the procedures for obtaining any required audit sample and reporting those results.

Permit issued this the XXth day of XXXXX, 2023.

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Mark J. Cuilla, EIT, CPM, Chief, Air Permitting Section
By Authority of the Environmental Management Commission
Air Permit No. 10771R00