

DRAFT

Date, 2006

Mr. Tony Sprinkle
Environmental Specialist
KobeWieland Copper Products, LLC
P.O. Box 160
Pine Hall, North Carolina 27042

Dear Mr. Sprinkle:

**SUBJECT: Air Quality Permit No. 02469T17
Facility ID: 8500028
KobeWieland Copper Products, LLC
Pine Hall, North Carolina
Stokes County
Fee Class: Title V**

In accordance with your completed Air Quality Permit Application for renewal of your Title V permit received March 27, 2006, we are forwarding herewith Air Quality Permit No. 02469T17 to KobeWieland Copper Products, LLC, 3990 U.S. Highway 311 North, Pine Hall, North Carolina, authorizing the operation, as outlined in Part I, and the construction, as outlined in Part II, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 2Q .0503 have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3 of Part I. **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 conditions of the attached permit that are applicable to that particular emission source.

Mr. Tony Sprinkle
date, 2006
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If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with **both** the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding.

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

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

This Air Quality Permit shall be effective from date, 2006 until date, 2011, 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 Mark J. Cuilla, E.I.T., at (919) 733-1499.

Sincerely yours,

Donald D. Redmond, Jr.
Acting Chief

Enclosure

cc: Gregg Worley, EPA Region 4 with review
Winston-Salem Regional Office
Central Files

ATTACHMENT

Insignificant Activities under 15A NCAC 2Q .0503(8) under Permit No. 02469T17

Emission Source Description	Insignificant Regulation	Basis for Exemption
Storage containers less than 100 gallons in size storing organic liquids with vapor pressures less than 10.8 psi (ID No. I1)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPS
Clean 142 solvent storage tank (6,000 gallon capacity; ID No. IES-TANK-Clean)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPS
Dirty 142 solvent storage tank (6,000 gallon capacity; ID No. IES-TANK-Dirty)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPS
Diesel fuel storage tank (6,000 gallon capacity; ID No. I2)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPS
Gasoline storage tank (2,000 gallon capacity; ID No. I3)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPS
Propane storage tank (30,000 gallon capacity; ID No. I4)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPS
Fourteen parts washers using 142 solvent (ID No. I5)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPS
One diesel-fired emergency generator (300 kW; ID No. IES-EG)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPS
One natural gas-fired launder (1.28 million Btu per hour maximum heat input capacity; ID No. IES-L)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPS
Two cut off saws for the extrusion process and associated bagfilter in series with a “knock down” chamber (ID No. I6)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPS
Thirty-eight cooling towers (ID No. I7)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPS
Two diesel fired steam cleaners (6 hp each; ID No. I8)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPS
Four contact markers (ID No. I9)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPS
Three gas fired concrete saws (30 hp, 10 hp, and 4 hp; ID No. I10)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPS
One diesel fired sandblaster (65 hp; ID No. IES-SB1)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPS

Emission Source Description	Insignificant Regulation	Basis for Exemption
Six small ink marking machines (ID No. I11)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPS
Three wastewater evaporator systems (ID No. I12)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPS
One hydrocarbon based tube degreaser (ID No. I13)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPS
One CAM type drawing machine (ID No. I14)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPS
Two electrically heated ovens located in maintenance department (ID No. I15)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPS

ATTACHMENT

The following table lists all modifications associated with this permit action:

Page(s)	Section	Description of Change(s)
Attachment	Insignificant activities	-put equipment in tabular form -added equipment noted in regional office inspection report -added ID Nos.
Cover	-	-amended permit revision numbers and all dates
All	Header	-amended permit revision number
3-4	Equipment table	-corrected/added ID Nos. where needed -removed equipment per regional office inspection report
4	2.1 A (table) 2.1 A.1.a 2.1 A.1.b 2.1 A.1.c	-added CAM reference -added ID Nos. -updated shell language and corrected cross reference -updated shell language
5	2.1 A.1.d 2.1 A.1.f 2.1 A.2.b 2.1 A.2.c 2.1 A.2.d	-updated shell language -updated shell language -corrected cross reference -added ID Nos. and updated shell language -updated shell language
6	2.1 A.2.e	-updates shell language
6-8	2.1 A.3	-added CAM requirements
8-9	2.1 B	-added Section for extrusion press (ID No. EP)
9	2.1 C (table) 2.1 C.1.a 2.1 C.1.c 2.1 C.1.d 2.1 C.1.e	-added CAM reference -added ID Nos. -added ID Nos. -updated shell language -updated shell language
10	2.1 C.2 2.1 C.2.a 2.1 C.2.b 2.1 C.2.c 2.1 C.2.e 2.1 C.2.f 2.1 C.2.g	-corrected rule citation -added reference to control device -updated shell language -added ID Nos. and updated shell language -added ID Nos. -corrected paragraph header -converted reporting period from quarterly to semi-annually
11-13	2.1 C.3	-added CAM requirements
13	2.2 A	-added ID Nos.
14	2.2 B	-added odor control requirements
15-23	General Conditions	-updated shell language

State of North Carolina
Department of Environment
and Natural Resources



Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
02469T17	02469T16	60 dys from issuance	date, 2011

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

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

Permittee: **KobeWieland Copper Products, LLC**

Facility ID: **8500028**

Facility Site Location: **3990 U.S. Highway 311 North**
City, County, State, Zip: **Pine Hall, Stokes County, North Carolina 27042**
Mailing Address: **P.O. Box 160**
City, State, Zip: **Pine Hall, North Carolina 27042**

Application Number: **8500028.06A**
Complete Application Date: **March 27, 2006**
Renewal Application Due Date: **date nine months prior to expiration of permit**
Primary SIC Codes: **3351**

Division of Air Quality,
Regional Office Address: **Winston-Salem Regional Office**
585 Waughtown Street
Winston-Salem, North Carolina 27107

Permit issued this the xxth day of xxxx, 2006

Donald D. Redmond, Jr., Acting Chief, Air Permits Section
By Authority of the Environmental Management Commission

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(Including specific requirements, testing, monitoring, record keeping, and reporting requirements)

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(Including specific requirements, testing, monitoring, record keeping, and reporting requirements)

SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENT

List of Acronyms

PART II -

This permit does not include a Part II.

PART I

The Division of Air Quality (DAQ), the United States Environmental Protection Agency (EPA), and citizens as defined under the Federal Clean Air Act have the authority to enforce the terms, conditions, and limitations contained in Part I of this permit unless otherwise specified.

Under Title 15A NCAC 2Q, the operation of emission source(s) and associated air pollution control device(s) and appurtenances listed in Part I of this permit is based on plans, specifications, operating parameters, and other information as submitted in the Air Quality Permit Application.

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
CMF-1	One electric arc copper melting furnace	B-1 through B-4	Four bagfilters (5,530 square feet of filter area, each)
EP	One extrusion press	NA	NA
BB-1 through BB-10	Ten bull blocks	NA	NA
DRB-11 through DRB-16	Six draw benches	NA	NA
LC-1	One Loma coiler	NA	NA
RC-1 and RC-2	Two Ruesh coilers	NA	NA
ES-IH-1, ES-IH-2, and ES-IH-3	Three electric induction heating ovens	NA	NA
ES-IGB-1 through ES-IGB-15	Fifteen innergrove bull blocks	NA	NA
LWSB-1 through LWSB-3	Three smoothbore copper tubing level winders with associated defect marking operations (Nos. ESI-1 through ESI-3) and degreasing operations (Nos. D-1 through D-3)	NA	NA
LWIG-1 through LWIG-6	Six innergrove copper tubing level winders with associated defect marking operations (Nos. ESI-4 through ESI-9) and degreasing operations (Nos. D-4 through D-9)	NA	NA
G-1	One straight tube grooving machine with associated degreasing operation (No. D-10)	NA	NA
ST-1, ST-2, and ST-3	Three copper tube straighteners with associated degreasing operations (Nos. D-11 through D-13)	NA	NA
EXGen1, EXGen2, EXGen3, AF-1, and AF-2)	Three natural gas/propane-fired exothermic generators (4.07, 3.56, and 0.77 million Btu per hour maximum heat input capacity, respectively) providing carbon monoxide to two electric annealing ovens	CATOX1	One natural gas-fired catalytic oxidizer (3.0 million Btu per hour heat input rate)

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1 - Emission Source(s) and Control Device(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, record keeping, and reporting requirements as specified herein:

A. One electric arc copper melting furnace (ID No. CMF-1) and associated bagfilters (ID Nos. B-1 through B-4)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 4.10 \times P^{0.67}$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Particulate matter	Compliance Assurance Monitoring	15A NCAC 2D .0614

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

- a. Emissions of particulate matter from this source (**ID No. CMF-1**) shall not exceed an allowable emission rate as calculated by the following equation:

$$E = 4.10 \times P^{0.67} \quad \text{Where } E = \text{allowable emission rate in pounds per hour}$$

$$P = \text{process weight in tons per hour}$$

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

Testing [15A NCAC 2D .0501(c)(3)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(3) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. Particulate matter emissions from this source (**ID No. CMF-1**) shall be controlled by four bagfilters (**ID Nos. B-1 through B-4**). To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
 - ii. an annual (for each 12 month period following the initial inspection) internal inspection of the bagfilters' structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and bagfilters are not inspected and maintained.

- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the bagfilters; and

iv. any variance from manufacturer's recommendations, if any, and corrections made.
The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

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

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

- a. Visible emissions from this source (**ID No. CMF-1**) 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 2D .0501(c)(8)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, once a month the Permittee shall observe the emission points of this source (**ID No. CMF-1**) for any visible emissions above normal. If visible emissions from this source (**ID No. CMF-1**) are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 A.2.a above.If the above-normal emissions are not corrected per i. above or if the demonstration in ii. above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

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

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emission; and
 - iii. the results of any corrective actions performed.The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

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

- e. The Permittee shall submit a summary report of the 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 2D .0614: COMPLIANCE ASSURANCE MONITORING

- a. Per 40 CFR 64 and 15A NCAC 2D .0614, the Permittee shall comply with the following.

b. Background

i. Emission Unit.

(A) Description. One electric arc copper melting furnace.

(B) Identification. **ID No. CMF-1**

ii. Applicable Regulation, Emission Limit, and Monitoring Requirements.

(A) Regulations. 15A NCAC 2D .0515 and .0521

(B) Emission limits

1. $E = 4.10 \times P^{0.67}$

Where E = allowable emission rate in pounds per hour

P = process weight in tons per hour

2. 20 percent opacity

(C) Control Technology. Four bagfilters (**ID Nos. B-1 through B-4**) installed in series

- c. **Monitoring Approach.** The key elements of the monitoring approach for particulate matter, including parameters to be monitored, parameter ranges and performance criteria are presented in the following table.

	1	2
I. Indicator	Visible emissions	Pressure drop
Measurement Approach	Visible emissions from the fabric filter will be monitored daily using EPA Reference Method 22-like procedures	Pressure drop across the fabric filter is measured with a differential pressure gauge
II. Indicator Range	An excursion is defined as the presence of visible emissions. Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as a pressure drop greater than 5 inches of water. Excursions trigger an inspection, corrective action, and a reporting requirement.
QIP Threshold	The QIP threshold is five excursions in a 6-month reporting period.	None selected
III. Performance Criteria		
A. Data Representativeness	Measurements are being made at the emission point (fabric filter outlet)	Pressure taps are located at the fabric filter inlet and outlet. The gauge has a minimum accuracy of 0.5 inches of water.
B. Verification of Operational Status	NA	NA
C. QA/QC Practices	The observer will be familiar with Reference Method 22 and follow Method 22-like procedures.	The pressure gauge is checked daily for operation.
D. Monitoring Frequency	Observations are done daily.	Pressure drop is monitored daily.
Data Collection Procedures	VE observations are documented by the observer.	Pressure gauge readings are manually recorded daily.
Averaging Periods	NA	NA

d. **Justification**

- i. **Background.** The pollutant-specific emission unit is the electric arc copper melting furnace, which is used to melt virgin and scrap copper. The particular filters for this plan are four bagfilters, 5,530 square feet of filter area, each.
- ii. **Rationale for Selection of Performance Indicators.** Visible emissions was selected as the performance indicator because it is a good indicator of the proper operation and maintenance of the filter units. When the filter units are operating properly, there will not be any visible emissions in the exhaust outlet. Any increase in visible emissions indicates reduced performance of the filter units, therefore, the presence of visible emissions is used as a performance indicator.

In general, filters are designed to operate at a relatively constant pressure drop. Monitoring pressure drop provides a means of detecting a change in operation that could lead to an increase in emissions. An increase in pressure drop can indicate that the cleaning cycle is not frequent enough, cleaning equipment is damaged/broken, the bags are becoming blinded, or the airflow has increased. A decrease in pressure drop may indicate broken or loose bags, but this is also indicated by the presence of visible emissions, indicator No. 1. A pressure drop across the filter unit also serves to indicate that there is airflow through the control device.

- iii. **Rationale for Section of Indicator Ranges.** The selected indicator range is no visible emissions. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported. An indicator range of no visible emissions was selected because: (1) an increase in visible emissions is indicative of an increase in particulate emissions; and (2) a monitoring technique which does not require a Method 9 certified observer is desired. Although Reference Method 22 applies to fugitive sources, the visible/no visible emissions observation technique of RM-22 can be applied to ducted emissions; i.e., Method 22-like observations.

The selected QIP threshold for fabric filter visible emissions is five excursions in a 6-month reporting period. This level is 19 percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

The indicator range chosen for the fabric filter pressure drop is greater than 5 inches water. An excursion triggers an inspection, corrective action, and a reporting requirement. The pressure drop is recorded daily. As the pressure drop approaches 5 inches water the bags are scheduled for replacement.

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

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

B. One extrusion press (ID No. EP)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 4.10 \times P^{0.67}$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	20 percent opacity	15A NCAC 2D .0521

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

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

$$E = 4.10 \times P^{0.67} \quad \text{Where } E = \text{allowable emission rate in pounds per hour}$$
$$P = \text{process weight in tons per hour}$$

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

Testing [15A NCAC 2D .0501(c)(3)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(3) and 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 2D .0515.

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

- c. The Permittee shall maintain production records such that the process rates “P” in tons per hour, as specified by the formula contained above can be derived, and shall make these records available to a DAQ authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the production records are not maintained or the types of materials and finishes are not monitored.
- d. No reporting is required for this source (**ID No. EP**).

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

- a. Visible emissions from this source (**ID No. EP**) 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 2D .0501(c)(8)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

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

C. Three exothermic generators (ID Nos. EXGen1, EXGen2, and EXGen3) venting to two electric annealing ovens (ID Nos. AF-1 and AF-2) and associated catalytic oxidizer (ID No. CATOX1)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Carbon monoxide	Less than 250 tons per year	15A NCAC 2Q .0317 (PSD Avoidance)
Carbon monoxide	Compliance Assurance Monitoring	15A NCAC 2D .0614

1. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. EXGen1, EXGen2, EXGen3, AF-1, and AF-2**) 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 2D .0501(c)(8)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, once a month the Permittee shall observe the emission points of these sources (**ID Nos. EXGen1, EXGen2, EXGen3, AF-1, and AF-2**) for any visible emissions above normal. If visible emissions from these sources (**ID Nos. EXGen1, EXGen2, EXGen3, AF-1, and AF-2**) are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 C.1.a above.

If the above-normal emissions are not corrected per i. above or if the demonstration in ii. above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

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

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

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

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

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

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

- a. In order to avoid applicability of 15A NCAC 2D .0530(g) for major sources and major modifications, these sources (**ID Nos. EXGen1, EXGen2, and EXGen3**) providing carbon monoxide to these sources (**ID Nos. AF-1 and AF-2**) shall discharge into the atmosphere less than 250 tons of carbon monoxide, per consecutive 12-month period and shall be controlled by one catalytic oxidizer (**ID No. CATOX1**).

Testing [15A NCAC 2D .0501(c)(4)]

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with 15A NCAC 2D .0501(c)(4) and 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 2D .0530.

Operational Parameters

- c. i. Maximum flow rate to the oxidizer (**ID No. CATOX1**) shall not exceed the design capacity of 7,500 acfm unless determined otherwise by destruction efficiency source test.
ii. Maximum temperature in the catalyst bed shall not be greater than the design operating temperature of 1,150^oF.
iii. The catalytic oxidizer (**ID No. CATOX1**) shall achieve a minimum of 95 percent destruction efficiency as determined by source testing. The catalytic oxidizer (**ID No. CATOX1**) minimum outlet temperature shall be 617^oF.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if these parameters are exceeded.

Inspection and Maintenance Requirements

- d. To comply with the provisions of this permit and ensure that the optimum control efficiency is maintained, the Permittee shall maintain an inspection and maintenance schedule/checklist based on manufacturer's recommendations. As a minimum, the Permittee shall perform an annual internal inspection of the self cleaning ceramic filter, the catalytic oxidizer reactor, catalyst, primary heat exchanger, and associated inlet/outlet valves to ensure structural integrity. The results of this inspection shall be recorded in the oxidizer log.

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

- e. The Permittee shall ensure the proper performance of the catalytic oxidizer (**ID No. CATOX1**) by monitoring the operating temperature once per shift and recording it in the catalytic oxidizer log. The operating temperature shall be measured inside the unit at the catalyst bed outlet.
f. The oxidizer log shall be kept on site and made available to DAQ personnel upon request. Any variance from manufacturer's recommendations shall be investigated with corrections made and date of actions recorded in the oxidizer log. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the records are not kept or if the carbon monoxide emissions exceed the limit in Section 2.1 C.2.a above.

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

- 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.

3. 15A NCAC 2D .0614: COMPLIANCE ASSURANCE MONITORING

- a. Per 40 CFR 64 and 15A NCAC 2D .0614, the Permittee shall comply with the following.
- b. **Background**
 - i. Emission Unit.
 - (A) Description. Three exothermic generators venting to two electric annealing ovens.
 - (B) Identification. **ID Nos. EXGen1, EXGen2, EXGen3, AF-1, and AF-2**
 - ii. Applicable Regulation, Emission Limit, and Monitoring Requirements.
 - (A) Regulations. 15A NCAC 2Q .0317 for 15A NCAC 2D .0530 (PSD Avoidance)
 - (B) Emission limits
 - 1. less than 250 tons per year carbon monoxide
 - (C) Control Technology. One catalytic oxidizer (**ID No. CATOX1**)
- c. **Monitoring Approach.** The key elements of the monitoring approach for particulate matter, including parameters to be monitored, parameter ranges and performance criteria are presented in the following table.

	1	2	3
I. Indicator	Inlet temperature	Outlet temperature	Visible emissions
Measurement Approach	Inlet temperature is monitored by a thermocouple	Outlet temperature is monitored by a thermocouple	Visible emissions from the catox1 will be monitored daily using EPA Reference Method 22-like procedures
II. Indicator Range	An excursion is defined as temperature readings less than 550°F. Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as temperature readings less than 625°F. Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as the presence of visible emissions. Excursions trigger an inspection, corrective action, and a reporting requirement.
QIP Threshold	None selected.	None selected.	The QIP threshold is five excursions in a 6-month reporting period.
III. Performance Criteria			
A. Data Representativeness	Measurements are being made at the emission point (catalyst inlet) and has an indicator range of 0°F to 9999°F	Measurements are being made at the emission point (catalyst outlet) and has an indicator range of 0°F to 9999°F	Measurements are being made at the emission point (catox1 outlet)
B. Verification of Operational Status	Chart recorder	Chart recorder	NA
C. QA/QC Practices	The thermocouple is checked daily for operation and calibrated annually	The thermocouple is checked daily for operation and calibrated annually	The observer will be familiar with Reference Method 22 and follow Method 22-like procedures.
D. Monitoring Frequency	Once per shift	Once per shift	Observations are done daily.
Data Collection Procedures	Recorded daily in logbook	Recorded daily in logbook	VE observations are documented by the observer.
Averaging Periods	NA	NA	NA

d. **Justification**

- i. **Background.** The Permittee operates two electric annealing ovens as part of its copper tubing manufacturing process. Three natural gas fired exothermic generators (only two operate at a time one is on standby) produce an anaerobic gas mainly carbon monoxide for the annealing ovens. The annealing process takes place in an anaerobic atmosphere to prevent oxidation of copper tubing. After doing its job, the CO was vented to the atmosphere from the two annealing ovens via a stack on each end. In 1997, estimated potential CO mass balance emission inventory report showed that the CO emissions from the annealing ovens to be at 442 tons per year. This level exceeded the 250 tons per year upper PSD limit. After testing it was decided that the best available control technology device for the CO was a catalytic oxidizer to eliminate 95% of the CO from the ovens. On October 27, 1997 the oxidizer came online and began eliminating CO emissions. On January 12, 1998 emissions testing was performed and the destruction efficiency was established at 99.94% and CO emissions were 5.53 tons per year.
- ii. **Rationale for Selection of Performance Indicators and Indicator Ranges.** The emissions testing used Method 10 in conjunction with methods 1, 2, 3A and 4 to determine the CO concentration of the oxidizer's inlet and outlet gases.

The CO emissions vented to the oxidizer are relatively constant. As a result the oxidizer ran steadily with no peaks in temperature. It was decided that the process is constant and that the readings were to be recorded every 15 minutes during the test run. The inlet and outlet temperatures were typically 550°F and 620°F respectively.

The CO analysis indicated that the inlet concentration of CO to the oxidizer typically was between 3500 and 3600 parts per million. The outlet concentration was between 0.5 and 2 parts per million. The results were that the CO destruction efficiency of the oxidizer was at 99.94%.

As a result of all the testing the Permittee is required to monitor the inlet and outlet temperature. Records are also required. A minimum outlet temperature has been set at 617°F.

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

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

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

- A. **Ten bull blocks (ID Nos. BB-1 through BB-10)**
Six draw benches (ID Nos. DRB-11 through DRB-16)
One Loma coiler (ID No. LC-1)
Two Ruesh coilers (ID Nos. RC-1 and RC-2)
Three electric induction heating ovens (ID Nos. ES-IH-1 through ES-IH-3)
Three smoothbore copper tubing level winders (ID Nos. LWSB-1 through LWSB-3) and associated defect marking operations (ID Nos. ES-I-1 through ES-I-3) and degreasing operations (ID Nos. D-1 through D-3)
Six innergrove copper tubing level winders (ID Nos. LWIG-1 through LWIG-3) and associated defect marking operations (ID Nos. ES-I-4 through ES-I-9) and degreasing operations (ID Nos. D-4 through D-9)
One straight tube grooving machine (ID No. G-1) and associated degreasing operation (ID No. D-10)
Three straighteners (ID Nos. ST-1 through ST-3) and associated degreasing operations (ID Nos. D-11 through D-13)
Two electric annealing ovens (ID Nos. AF-1 and AF-2)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile organic compounds	Work Practice Standards	15A NCAC 2D .0958

1. 15A NCAC 2D .0958: WORK PRACTICE STANDARDS

- a. Pursuant to 15A NCAC 2D .0958, for all sources that use volatile organic compounds (VOCs) as solvents, carriers, material processing media, or industrial chemical reactants, or in similar uses that mix, blend, or manufacture VOCs, or emit VOCs as a product of chemical reactions, and whose emissions of VOCs are greater than 15 pounds per day, the Permittee shall:
 - i. store all material, including waste material, containing VOCs in tanks or in containers covered with a tightly fitting lid that is free of cracks, holes, or other defects, when not in use,
 - ii. clean up spills of VOCs as soon as possible following proper safety procedures,
 - iii. store wipe rags containing VOCs in closed containers,
 - iv. not clean sponges, fabric, wood, paper products, and other absorbent materials with VOCs,
 - v. transfer solvents containing VOCs used to clean supply lines and other coating equipment into closable containers and close such containers immediately after each use, or transfer such solvents to closed tanks, or to a treatment facility regulated under Section 402 of the Clean Water Act,
 - vi. clean mixing, blending, and manufacturing vats and containers containing VOCs by adding cleaning solvent and close the vat or container before agitating the cleaning solvent. The spent cleaning solvent shall then be transferred into a closed container, a closed tank or a treatment facility regulated under Section 402 of the Clean Water Act.
- b. When cleaning parts with a solvent containing a VOC, the Permittee shall:
 - i. flush parts in the freeboard area,
 - ii. take precautions to reduce the pooling of solvent on and in the parts,
 - iii. tilt or rotate parts to drain solvent and allow a minimum of 15 seconds for drying or until all dripping has stopped, whichever is longer,
 - iv. not fill cleaning machines above the fill line, and
 - v. not agitate solvent to the point of causing spashing.

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

- c. To assure compliance with Sections 2.2 A.1.a and b above, the Permittee shall, at a minimum, perform a

visual inspection once per month of all operations and processes utilizing VOCs and shall immediately initiate any corrective actions required to meet the requirements of Sections 2.2 A.1.a and b above. The inspections shall be conducted during normal operations. If the required inspections are not conducted the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0958.

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

- d. The results of the inspections 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 inspection; and
 - ii. the results of each inspection noting whether or not noncompliant conditions were observed and whether or not corrective actions were taken to restore compliance.If the required records are not maintained the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0958.

Reporting [15A NCAC 2Q .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.

State-enforceable only

B. Facility-wide emission sources

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Odors	State-enforceable only Odorous emissions must be controlled	15A NCAC 2D .1806

1. 15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

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

SECTION 3 - GENERAL CONDITIONS

This section describes terms and conditions applicable to this Title V facility. All references to the “permit” in this section apply only to Part I of the permit.

- A. **General Provisions** [NCGS 143-215 and 15A NCAC 2Q .0508(aa)]
1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 2D and 2Q.
 2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
 3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
 4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
 5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
 6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.
- B. **Permit Availability** [15A NCAC 2Q .0507(k) and .0508(aa)]
The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environment and Natural Resources upon request.
- C. **Severability Clause** [15A NCAC 2Q .0508(i)]
In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.
- D. **Submissions** [15A NCAC 2Q .0507(c)]
Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:
- Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641
- E. **Duty to Comply** [15A NCAC 2Q .0508(j)]

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

F. **Circumvention** - STATE ENFORCEABLE ONLY

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

G. **Permit Modifications**

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

H. **Changes Not Requiring Permit Modifications**

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

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

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

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

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

Excess Emissions

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

Permit Deviations

3. Pursuant to 15A NCAC 2Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
 - a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 2D .0535 on the next business day after becoming aware of the deviation. A written report shall be submitted within two business days to the Regional Supervisor and shall include the probable cause of such deviation and any corrective actions or preventative actions taken. All reports of deviations from permit requirements shall be certified by a responsible official.

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

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 2D .0535.

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

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

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

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

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

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

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

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

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

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

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

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

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

The Permittee shall retain records of all required monitoring data and supporting information for a period of at

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

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

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

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

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

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

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

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

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

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

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

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

Because an emission source or activity is insignificant does not mean that the emission source or activity is

exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

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

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

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

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:

- a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
- b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
- c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.

2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 2D .0200(b).

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

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

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

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, the Permittee shall perform such testing in accordance with the appropriate EPA reference method(s) as approved by the DAQ and follow the procedures outlined below. The Permittee must request **in writing** and receive approval from the DAQ for an alternate test method or procedure.

1. The Permittee shall submit a completed Protocol Submittal Form to the DAQ Regional Supervisor at least 45 days prior to the scheduled test date. A copy of the Protocol Submittal Form may be obtained from the

Regional Supervisor.

2. The Permittee shall notify the Regional Supervisor of the specific test dates at least 15 days prior to testing in order to afford the DAQ the opportunity to have an observer on-site during the sampling program.
3. During all sampling periods, the Permittee shall operate the emission source(s) under maximum normal operating conditions or alternative operating conditions as deemed appropriate by the Regional Supervisor or his delegate.
4. The Permittee shall submit **two** copies of the test report to the DAQ. The test report shall contain at a minimum the following information:
 - a. a certification of the test results by sampling team leader and facility representative;
 - b. a summary of emissions results and text detailing the objectives of the testing program, the applicable state and federal regulations, and conclusions about the testing and compliance status of the emission source(s);
 - c. a detailed description of the tested emission source(s) and sampling location(s) process flow diagrams, engineering drawings, and sampling location schematics should be included as necessary;
 - d. all field, analytical, and calibration data necessary to verify that the testing was performed as specified in the applicable test methods;
 - e. example calculations for at least one test run using equations in the applicable test methods and all test results including intermediate parameter calculations; and
 - f. documentation of facility operating conditions during all testing periods and an explanation relating these operating conditions to maximum normal operation. If necessary, provide historical process data to verify maximum normal operation.
5. The testing requirement(s) shall be considered satisfied only upon written approval of the test results by the DAQ.
6. The DAQ will review emission test results with respect exclusively to the specified testing objectives as proposed by the Permittee and approved by the DAQ. The use of the test results beyond the stated objectives remains subject to the approval of the DAQ.

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

1. A permit shall be reopened and revised under the following circumstances:
 - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
 - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
 - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
 - d. the Director or EPA determines that the permit must be revised or revoked to ensure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 2Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 2Q .0507, .0521, or .1806 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 2Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. Reporting Requirements for Non-Operating Equipment [15A NCAC 2Q.508(f)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is

taken from and placed into operation. During operation the monitoring recordkeeping and reporting requirements as prescribed by the permit shall be implemented within the monitoring period.

ATTACHMENT

List of Acronyms

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