



North Carolina Department of Environment and Natural Resources
Division of Air Quality

Beverly Eaves Perdue
Governor

B. Keith Overcash, P.E.
Director

Dee Freeman
Secretary

Enter XX or Calendar Date

Ms. Keitha Buckingham
Plant Manager
Mallinckrodt Inc.
8801 Capital Boulevard
Raleigh, NC 27616

Dear Ms. Buckingham:

SUBJECT: Air Quality Permit No. 01479T45
Facility ID: 9200349
Mallinckrodt Inc.
Raleigh, North Carolina
Wake County
Fee Class: Title V

In accordance with your completed Air Quality Permit Application for an initial Title V permit received October 14, 2008, we are forwarding herewith Air Quality Permit No. 01479T45 to Mallinckrodt Inc., 8801 Capital Boulevard, Raleigh, North Carolina authorizing the construction and operation of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 2Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. **The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.**

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

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

Permitting Section

1641 Mail Service Center, Raleigh, North Carolina 27699-1641
2728 Capital Blvd., Raleigh, North Carolina 27604
Phone: 919-715-6235 / FAX 919-733-5317 / Internet: www.ncair.org

One
North Carolina
Naturally

Ms. Buckingham

Enter Date

Page 2

this permit will be stayed in its entirety upon receipt of the request for a hearing unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

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

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

This Air Quality Permit shall be effective from (Enter XX or Permit Issuance Date) until (Enter XX or Permit Expiration Date), is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein. Should you have any questions concerning this matter, please contact Ms. Fern Paterson, P.E. at (919) 715-6242.

Sincerely,

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

Enclosure

cc: Gregg Worley, EPA Region 4
Raleigh Regional Office
Central Files

ATTACHMENT I:

Insignificant Activities Pursuant to 15A NCAC 2Q .0503(8)

Source ID Nos.	Emission Source Description
IS-WW-6	Diesel fired pump (0.21 mmBtu/hr) serving the non-industrial area.
IS-PAP-13.1	28,000 gallon sulfuric acid bulk storage tank
IS-PAP-13.2	28,000 gallon sulfuric acid bulk storage tank
IS-PAP-13.3	28,000 gallon sulfuric acid bulk storage tank
I-PAR-20.1	Testing laboratory exhaust hood L-2 located at Medical Plant support facilities
I-PAR-20.2	Testing laboratory exhaust hood L-3 located at Medical Plant support facilities
I-APAP-16	Crystallizers (T-143 & T-145) and Dissolvers (T-142 and T-148)
I-Tank-CTK1	Sodium hydroxide tank (20% caustic solution), 5,000 gallon capacity
I-Tank-BTK1	Blowdown water storage tank for cloud chamber scrubber, 2,000 gallon capacity

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



AIR QUALITY PERMIT

Permit No.	Replaces Permit No.	Effective Date	Expiration Date
01479T45	01479R44	ENTER DATE	ENTER DATE

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

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

Permittee:

Mallinckrodt Inc.

Facility ID:

9200349

Facility Site Location:

8801 Capital Boulevard

City, County, State, Zip:

Raleigh, Wake County, North Carolina, 27616

Mailing Address:

8801 Capital Boulevard

City, State, Zip:

Raleigh, North Carolina, 27616

Application Number:

9200349.08C

Complete Application Date:

October 14, 2008

Primary SIC Code:

2833, 2834, 2873, 2869, 2865

Division of Air Quality,

Raleigh Regional Office

Regional Office Address:

3800 Barrett Drive

Raleigh, NC 27609

Permit issued this the **XX** day of **XXXXXX**, **XXXX**

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

Table of Contents

SECTION 1: PERMITTED EMISSION SOURCE (S) AND ASSOCIATED
AIR POLLUTION CONTROL DEVICE (S) AND APPURTENANCES

SECTION 2: SPECIFIC LIMITATIONS AND CONDITIONS

2.1- Emission Source(s) Specific Limitations and Conditions

(Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)

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

(Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)

2.3 – Other Applicable Requirements

- Section 112(r)

SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENT

List of Acronyms

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
<i>p</i>-Aminophenol Production Process in Building 201 (PAP I)			
PAP-2.1, PAP-2.2	Two (2) PAP vacuum dryers	CD-PAP-2	Fabric filter (DC-2001) (160 square feet of filter area)
PAP-1	Flash arrestor tank serving the process equipment listed in 'Confidential Building 201 Equipment List'	CD-PAP-1	Water packed bed column scrubber to recover and recycle nitrobenzene to the process (voluntary use only)
PAP-22 NSPS NNN	Process equipment specified in 'Confidential Building 201 Equipment List'	CD-COND-3, CD-PAPSCRUB	House vent condenser installed in series with a Packed bed scrubber (55 gallons per minute minimum liquid injection rate of a dilute sulfuric acid solution with an allowable pH range from 0 to 4)
PAP-3	Product Bin No. 1290 for the packaging and transfer of PAP	CD-T290	Fabric filter (69 square feet of filter area)
PAP-11	Nitrobenzene rail car and/or truck unloading operations	N/A	N/A
PAP-12	Nitrobenzene storage tank, 124,000 gallon capacity	N/A	N/A
PAP-25T	Aniline loading station for trucks	N/A	N/A
PAP-25R	Aniline loading station for railcars	N/A	N/A
<i>p</i>-Aminophenol Production Process in Building 205 (PAP II)			
PAP-7.1, PAP-7.2	Two (2) PAP vacuum dryers	CD-PAP-7	Fabric filter (DC-2004) (160 square feet of filter area)
PAP-6	Flash arrestor tank serving the process equipment listed in the 'Confidential Building 205 Equipment List'	CD-PAP-6	Water packed bed column scrubber to recover and recycle nitrobenzene to the process (voluntary use only)
PAP-23	Process equipment listed in 'Confidential Building 205 Equipment List'	CD-COND-2, CD-PAPSCRUB	House vent condenser, installed in series with a Packed bed scrubber (55 gallons per minute minimum liquid injection rate of a dilute sulfuric acid solution with an allowable pH range from 0 to 4)
PAP-8	Product bin for packaging of PAP	CD-PAP-8	Fabric filter (BG-0205) (69 square feet of filter area)
Acetaminophen Production Process in Building 101 (APAP)			
APAP-2.1, APAP-2.2	Two (2) APAP sizing and packaging stations; and,	CD-APAP-2	House dust collection system (DC-42) (459 square feet of filter area)
T-31, T-41	Two (2) APAP packaging station drop hoppers		

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
APAP-5A, APAP-5B	Two (2) acetic acid storage tanks for APAP production, 135,000 gallon capacity each	N/A	N/A
APAP-1 NSPS NNN	Acetaminophen production process line in Building 101 with equipment specified in 'Confidential Building 101 APAP Equipment List'	CD-APAP-1	House system packed tower scrubber (12-20 gal/min liquid injection rate of dilute potassium hydroxide or sodium hydroxide solution)
APAP-3	APAP House Vacuum System for production in Buildings 100A, 102, 103, and 104	CD-APAP-3	Fabric filter (170 square feet of filter area)
APAP-4	Acetic anhydride bulk storage tank (80,000 gallon capacity) and rail receiving operation	N/A	N/A
APAP-7	Truck/rail load out vent on four 20,000 gallon acetic acid (HOAC) storage tanks A, B, C, and D	N/A	N/A
APAP-8	Sizing equipment (M-22), drop hopper (T-21), pneumatic conveyor and packaging operation (BF-1470)	CD-APAP-8.1	Fabric filter (DC-21) (74 square feet of filter area) with a pneumatic solids conveying system
APAP-10	Sizing equipment associated with #4 Mill/Drop Hopper (M-41)	CD-APAP-10.1	Fabric filter (DC-41) (74 square feet of filter area)
APAP-11	Sizing equipment associated with #3 Mill/Drop Hopper (M-31)	CD-APAP-11.1	Fabric filter (DC-32) (74 square feet of filter area)
APAP-12	Sizing equipment associated with the #2 Mill/Drop Hopper (M-21)	CD-APAP-12.1	Fabric filter (DC-22) (74 square feet of filter area)
APAP-13.1	Acetic acid rinses in Purified Blend Tank T-146	N/A	N/A
APAP-13.2	Acetic acid rinses in Centrifuge Feed Tank T-147	N/A	N/A
APAP-13.3	Acetic acid rinses in Purified Blend Tank	N/A	N/A
APAP-14.1	Acetic acid rinses in Process Mother Liquor (PML) Tank 161	N/A	N/A
APAP-14.2	Acetic acid rinses in four centrifuges	N/A	N/A
APAP-15	Acetic acid rinses in PML Tank 160	N/A	N/A
APAP-17	C&M bulk bagging operations with pneumatic conveyor system (BB-1407)	CD-APAP-17	Fabric filter (DC-1407) (203 square feet of filter area)
APAP-18	Pneumatic conveyor and bulk bagging packaging station (BB-1449)	CD-APAP-18	Fabric filter (DC-1450) (74 square feet of filter area)
APAP-21	PAP Charging pneumatic conveyor and product receivers	CD-APAP-21A	Fabric filter (DC-1415) (159 square feet of filter area)
		CD-APAP-21B	Fabric filter (DC-1416) (159 square feet of filter area)
Medical Imaging Plant (8800 Durant Road)			
PB-1, PB-2, PB-3	Three (3) natural gas/No. 2 fuel oil-fired boilers (6.3 million Btu per hour maximum heat input each)	N/A	N/A

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
PAR-11 MACT ZZZZ	No. 2 fuel oil-fired emergency generator (800 kW)	N/A	N/A

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Boiler House & Other Support Facilities			
BH-1 MACT EEE	Natural gas/K-083 liquid waste-fired boiler equipped with a low-NOx burner (18.6 million Btu per hour maximum heat input)	CD-CCS	Cloud chamber scrubber system
BH-2 MACT EEE	Natural gas/K-083 liquid waste-fired boiler equipped with a low-NOx burner (30.6 million Btu per hour maximum heat input)	CD-CCS	Cloud chamber scrubber system
BH-3	Natural gas-fired boiler equipped with a low-NOx burner (50 million Btu per hour maximum heat input)	N/A	N/A
BH-5 NSPS Dc	Natural gas/No. 2 fuel oil/landfill gas-fired boiler equipped with a low-NOx burner (96.2 million Btu per hour maximum heat input)	N/A	N/A
BH-6	K-083 liquid waste storage tank, 10,000 gallon capacity (exhausting to boilers ID Nos. BH-1 and BH-2)	N/A	N/A
WW-1 MACT ZZZZ	100 kW standby diesel generator serving the waste water treatment plant (Support Facilities)	N/A	N/A
WW-3	Raw wastewater holding tank	N/A	N/A
WW-4	Acetic acid wastewater treatment plant storage tank, 6,000 gallon capacity	N/A	N/A
Miscellaneous Sources			
ES-Fugitives NSPS VV	Fugitive emission sources: PAP 18, 19, 20, 21, 26 and APAP 9 & 20 (40 CFR 60, Subpart VV does not apply to PAP 21, PAP 26, or APAP 20)	N/A	N/A
PAP-10	Aniline bulk storage tank, 28,000 gallon capacity	N/A	N/A

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, recordkeeping, and reporting requirements as specified herein:

A. p-Aminophenol Production Process – Building 201 (PAP I)

Flash arrestor tank (ID No. PAP-1)

Process equipment specified in ‘Confidential Building 201 Equipment List’ (ID No. PAP-22) with associated condenser (ID No. CD-COND-3) and packed bed scrubber (ID No. CD-PAPSCRUB)

p-Aminophenol Production Process – Building 205 (PAP II)

Flash arrestor tank (ID No. PAP-6)

Process equipment specified in ‘Confidential Building 205 Equipment List’ (ID No. PAP-23) with associated condenser (ID No. CD-COND-2) and packed bed scrubber (ID No. CD-PAPSCRUB)

Acetaminophen Production Process

Acetaminophen production process line in Building 101 (ID No. APAP-1) with associated packed tower scrubber (ID No. CD-APAP-1)

Additional Fugitive Emission Sources:

PAP 18, 19, 20, 21, 26 and APAP 9 & 20 (ID No. ES-Fugitives)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
VOC	<u>Affected Source: APAP-9 (part of ES-Fugitives)</u> LDAR standards and inspection requirements for affected gas, vapor, and light liquid service equipment.	15A NCAC 2D .0524 (40 CFR 60, Subpart VV)
VOC	<u>Affected Sources: PAP 18, 19, & 20 (part of ES-Fugitives)</u> Recordkeeping requirements for affected heavy liquid service equipment.	15A NCAC 2D .0524 (40 CFR 60, Subpart VV)
VOC	<u>Affected Sources: Select Distillation Units in PAP-22 & APAP-1</u> Maintain a TRE index value greater than 8.0 for each of the affected sources.	15A NCAC 2D .0524 (40 CFR 60, Subpart NNN)
NO _x , SO ₂	Facility-wide emissions limitations to maintain minor source status under the PSD permitting program. See Section 2.2.A.1.	15A NCAC 2Q .0317 (PSD Avoidance)
TAP	<u>State-enforceable only</u> TAP <i>de minimus</i> levels See Section 2.2.A.2.	15A NCAC 2D .1100
TAP	<u>State-enforceable only</u> TAP <i>de minimus</i> levels See Section 2.2.A.3.	15A NCAC 2Q .0700
VOC	Work practices standard to limit VOC emissions. See Section 2.2.A.4.	15A NCAC 2D .0958
Odors	<u>State-enforceable only</u> See Section 2.2.A.5.	15A NCAC 2D .1806

1. 15A NCAC 2D .0524: 40 CFR 60, Subpart VV – NSPS for EQUIPMENT LEAKS OF VOC from SOCM I FACILITIES

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D

.0524, “New Source Performance Standards” (NSPS), as promulgated in 40 CFR 60, Subpart VV, including Subpart A, “General Provisions”.

Pumps in Light Liquid Service [15A NCAC 2D .0524]

- b. For pumps in light liquid service, if an instrument reading of 10,000 ppm or greater is measured, a leak is detected. [40 CFR 60.482-2(b)(1)]
- c. Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal, follow one of the following procedures:
 - i. Monitor the pump within 5 days using Method 21. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected and must be repaired as provided in this permit; or,
 - ii. Designate the visual indications of liquids dripping as a leak, and repair the leak within 15 days of detection by eliminating the visual indications of liquids dripping.

This requirement does not apply to a pump that was monitored after a previous weekly inspection if the instrument reading for that monitoring event was less than 10,000 ppm and the pump was not repaired since that monitoring event. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if the above requirements are not met. [40 CFR 60.482-2(a)(2), (b)(2), 40 CFR 60.13(i)]

- d. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in the “Delay of Repair” provisions listed below. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to the following practices, where practicable:
 - i. Tightening the packing gland nuts; and,
 - ii. Ensuring that the seal flush is operating at design pressure and temperature.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if the above requirements are not met. [40 CFR 60.482-2(c)]

Valves in Gas/Vapor or Light Liquid Service [15A NCAC 2D .0524]

- e. For valves in gas, vapor, or light liquid service, if an instrument reading of 10,000 ppm or greater is measured, a leak is detected. [40 CFR 60.482-7(b)]
- f. Each valve in gas, vapor, or light liquid service shall be checked by visual inspection each calendar month for indications of dripping liquids. If there are indications of liquids dripping from the valve, follow one of the following procedures:
 - i. Monitor the valve within 5 days using Method 21. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected and must be repaired as provided in this permit; or,
 - ii. Designate the visual indications of liquids dripping as a leak, and repair the leak within 15 days of detection by eliminating the visual indications of liquids dripping.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if the above requirements are not met. [40 CFR 60.482-7(a), 40 CFR 60.13(i)]

- g. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in the “Delay of Repair” provisions listed below. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the following best practices where practicable:
 - i. Tightening of bonnet bolts;
 - ii. Replacement of bonnet bolts;
 - iii. Tightening of packing gland nuts; and,
 - iv. Injection of lubricant into lubricated packing.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if the above requirements are not met. [40 CFR 60.482-7(d)-(e)]

Open-Ended Valves or Lines [15A NCAC 2D .0524]

- h. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as follows:
 - i. Open-ended valves or lines in an emergency shutdown system which are designated to open automatically

in the event of a process upset are exempt from these requirements; and,

- ii. Open-ended valves or lines containing materials which would auto-catalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system are exempt from these requirements.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if the above requirements are not met. [40 CFR 60.482-6(a)(1), (d), (e)]

- i. The cap, blind flange, plug, or second valve shall seal the open end at all times except during the operations requiring process fluid flow through the open-ended valve or line. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if the above requirements are not met. [40 CFR 60.482-6(a)(2)]
- j. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if the above requirements are not met. [40 CFR 60.482-6(b)]
- k. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with the requirements of this section at all other times. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if the above requirements are not met. [40 CFR 60.482-6(c)]

Pumps and Valves in Heavy Liquid Service and Connectors [15A NCAC 2D .0524]

- l. For pumps and valves in heavy liquid service and for connectors, if an instrument reading of 10,000 ppm or greater is measured, a leak is detected. [40 CFR 60.482-8(b)]
- m. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service or connectors, follow either one of the following procedures:
 - i. Monitor the equipment within 5 days using Method 21 as described in this section of the permit and comply with the repair requirements below; or,
 - ii. Eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if the above requirements are not met. [40 CFR 60.482-8(a)]

- n. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in the "Delay of Repair" provisions listed below. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the following:
 - i. Ensuring that the seal flush is operating at design pressure and temperature;
 - ii. Tightening of bonnet bolts;
 - iii. Replacement of bonnet bolts;
 - iv. Tightening of packing gland nuts; and,
 - v. Injection of lubricant into lubricated packing.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if the above requirements are not met. [40 CFR 60.482-8(c)-(d)]

Delay of Repair [15A NCAC 2D .0524, 40 CFR 60.482-9]

- o. Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit.
- p. Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.
- q. Delay of repair for valves will be allowed if:
 - i. The Permittee demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair; and,
 - ii. When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with 40 CFR 60.482-10.
- r. Delay of repair for pumps will be allowed if:

- i. Repair requires the use of a dual mechanical seal system that includes a barrier fluid system; and,
- ii. Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.
- s. Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.
- t. When delay of repair is allowed for a leaking pump or valve that remains in service, the pump or valve may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition.

Recordkeeping [15A NCAC 2D .0524]

- u. The Permittee shall retain a list of identification numbers for equipment that is subject to the leak requirements in 40 CFR 60, Subpart VV. The record shall be retained in a logbook (written or electronic format) that is kept on-site and made available to an authorized representative upon request. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if this record is not created and retained as required above. [40 CFR 60.486(e)(1)]
- v. For facilities that are complying with the limited requirements for heavy liquid service, the Permittee shall retain a statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if this record is not created and retained as required above. [40 CFR 60.486(i)(2)]
- w. The Permittee shall create a record for each Method 21 leak inspection for “no detectable emissions,” if applicable. The record shall be retained in a logbook (written or electronic format) that is kept on-site and made available to an authorized representative upon request. Each record shall include the following information:
 - i. The date the inspection was conducted;
 - ii. The background level measured; and,
 - iii. The maximum instrument reading measured at the equipment.
 The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if these records are not created and retained as required above. [40 CFR 60.486(e)(4)]
- x. When each leak is detected according to the provisions in this Section of the permit, a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.
 - i. The identification on a valve may be removed after it has been monitored for 2 successive months as specified in § 60.482–7(c) and no leak has been detected during those 2 months.
 - ii. The identification on equipment except on a valve, may be removed after it has been repaired.
 The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if these records are not created and retained as required above. [40 CFR 60.486(b)]
- y. When each leak is detected according to the provisions in this Section of the permit, the following information shall be recorded in a logbook (written or electronic format) that is kept on-site and made available to an authorized representative upon request:
 - i. The instrument and operator identification numbers and the equipment identification number;
 - ii. The date the leak was detected and the dates of each attempt to repair the leak;
 - iii. Repair methods applied in each attempt to repair the leak;
 - iv. “Above 10,000” if the maximum instrument reading measured using Method 21 after each repair attempt is equal to or greater than 10,000 ppm;
 - v. “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak;
 - vi. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown;
 - vii. The expected date of successful repair of the leak if a leak is not repaired within 15 days;
 - viii. Dates of process unit shutdowns that occur while the equipment is unrepaired; and,
 - ix. The date of successful repair of the leak.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if these records are not created and retained as required above. [40 CFR 60.486(c)]

Reporting [15A NCAC 2D .0524]

- z. The Permittee shall submit a summary report 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 semiannual reports shall include the following information:
 - i. Process unit identification;
 - ii. Number of valves for which leaks were detected for each month during the reporting period;
 - iii. Number of valves for which leaks were not repaired as required for each month during the reporting period;
 - iv. Number of pumps for which leaks were detected for each month during the reporting period;
 - v. Number of pumps for which leaks were not repaired as required for each month during the reporting period;
 - vi. The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible;
 - vii. Dates of process unit shutdowns which occurred within the semiannual reporting period; and,
 - viii. Revisions to the affected equipment list during the reporting period, if such changes have occurred.[40 CFR 60.487(c)]

2. 15A NCAC 2D .0524: 40 CFR 60, Subpart NNN – NSPS for VOC EMISSIONS from SOCFI DISTILLATION OPERATIONS

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

Emission Limitations [15A NCAC 2D .0524]

- b. The Permittee shall maintain a TRE index value greater than 8.0 for each of the affected sources (**ID Nos. PAP-22 and APAP-1**). [40 CFR 60.660(c)(4)]
- c. The Permittee shall maintain a TRE index value greater than 1.0 for each of the affected sources (**ID Nos. PAP-22 and APAP-1**) without use of VOC emission control devices. [40 CFR 60.662(c)]

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

- d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ and 40 CFR 60.664. If the results of this test do not meet the standard set in Section 2.1.A.2.b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

Process Changes [15A NCAC 2D .0524]

- e. The Permittee shall recalculate the TRE index value whenever process changes are made. Examples of process changes include changes in production capacity, feedstock type, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. The TRE index value shall be recalculated based on test data, or on best engineering estimates of the effects of the change to the recovery system:
 - i. Where the recalculated TRE index value is less than or equal to 1.0, notify the NC DAQ within 1 week of the recalculation and conduct a performance test according to the methods and procedures required by 40 CFR 60.664 in order to determine compliance with 40 CFR 60.662(a). Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.
 - ii. Where the initial TRE index value is greater than 8.0 and the recalculated TRE index value is less than or equal to 8.0 but greater than 1.0, conduct a performance test in accordance with 40 CFR 60.8 and 60.664 and comply with 40 CFR 60.663-.665. Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if it fails to recalculate the TRE

index value when a process change is made, or where any required performance tests are not conducted as required above. These process change requirements do not satisfy any permitting requirements that may be associated with the process change, as provided in 15A NCAC 2Q .0100, 15A NCAC 2Q .0300, and 15A NCAC 2Q .0500. [40 CFR 60.664(g)]

Recordkeeping [15A NCAC 2D .0524]

- f. The Permittee shall keep up-to-date, readily accessible records of the following for demonstrating compliance with the limit in Section 2.1.A.2.c above:
- i. Any changes in production capacity, feedstock type, or catalyst type, or of any replacement, removal or addition of recovery equipment or a distillation unit;
 - ii. Any recalculation of the TRE index value performed pursuant to 40 CFR 60.664(f); and,
 - iii. The results of any performance test performed pursuant to the methods and procedures required by 40 CFR 60.664(d).

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if it fails to meet these requirements. [40 CFR 60.665(h)]

Reporting [15A NCAC 2D .0524]

- g. The Permittee shall submit a summary report 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 semiannual reports shall include the following information:
- i. Any recalculation of the TRE index value, as recorded pursuant to Section 2.1.A.2.e. of this permit; and,
 - ii. All instances of deviations from the requirements of this permit must be clearly identified.
- [40 CFR 60.665(l)]

B. Dryers, Sizing, Packaging, & Housekeeping Equipment (PAP & APAP Processes)

Two (2) PAP vacuum dryers (ID Nos. PAP-2.1, PAP-2.2) with associated fabric filter (ID No. CD-PAP-2)

Product Bin No. 1290 (ID No. PAP-3) with associated fabric filter (ID No. CD-T290)

Two (2) PAP vacuum dryers (ID Nos. PAP-7.1, PAP-7.2) with associated fabric filter (ID No. CD-PAP-7)

Product Bin No. 1290 (ID No. PAP-8) with associated fabric filter (ID No. CD-PAP-8)

Two (2) APAP sizing and packaging stations (ID Nos. APAP-2.1, APAP-2.2) and two (2) APAP packaging station drop hoppers (ID No. T-31, T-41) with associated dust collection system (ID No. CD-APAP-2)

APAP House Vacuum System (ID No. APAP-3) with associated fabric filter (ID No. CD-APAP-3)

Sizing equipment, drop hopper, pneumatic conveyor and packaging operation (ID Nos. APAP-8) with associated fabric filter (ID No. CD-APAP-8.1)

Sizing equipment associated with #4 Mill/Drop Hopper (ID No. APAP-10) with associated fabric filter (ID No. CD-APAP-10.1)

Sizing equipment associated with #3 Mill/Drop Hopper (ID No. APAP-11) with associated fabric filter (ID No. CD-APAP-11.1)

Sizing equipment associated with #2 Mill/Drop Hopper (ID No. APAP-12) with associated fabric filter (ID No. CD-APAP-12.1)

C&M bulk bagging operations with pneumatic conveyor system (ID No. APAP-17) with associated fabric filter (ID No. CD-APAP-17)

C Pneumatic conveyor and bulk bagging packaging station (ID No. APAP-18) with associated fabric filter (ID No. CD-APAP-18)

PAP Charging pneumatic conveyor and product receivers (ID No. APAP-21) with associated fabric filters (ID Nos. CD-APAP-21A and CD-APAP-21B)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	$E=4.10P^{0.67}$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
Visible Emissions	Visible emissions shall not exceed 20% opacity (6-minute average) 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% opacity.	15A NCAC 2D .0521

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

- a. Emissions of particulate matter from the dryers, sizing, and packaging equipment shall not exceed an allowable emission rate as calculated by the following equation:

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

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

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

Testing [15A NCAC 2D .2601]

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

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

- c. No monitoring, recordkeeping, or reporting is required to demonstrate compliance with this particulate matter standard for pneumatic conveyor systems (**ID Nos. APAP-8, APAP-17, APAP-18, and APAP-21**) or APAP sources equipped with broken bag detectors (**ID Nos. APAP-2, APAP-3, APAP-10, APAP-11, and APAP-12**).
- d. Particulate matter emissions from the PAP sources (**ID Nos. PAP-2, PAP-3, PAP-7 and PAP-8**) shall be controlled by bagfilters and dust control systems as provided in the source descriptions in Section 1 of this permit. 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 is no manufacturer’s inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
 - i. A monthly visual inspection of the system ductwork and material collection unit for leaks; and
 - ii. An annual (for each 12 month period following the initial inspection) internal inspection of the bagfilters’ and dust collection system’s structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork, bagfilters, and dust collection system are not inspected and maintained.
- e. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. The date and time of each recorded action;
 - ii. The results of each inspection;
 - iii. The results of any maintenance performed on the bagfilters and/or dust collection system; 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.

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

- f. The Permittee shall submit the results of any maintenance performed on the bagfilters and/or dust collection system within 30 days of a written request by the DAQ.

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

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

- a. Visible emissions from the affected dryers, sizing, and packaging equipment 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 .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1.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, or reporting is required to demonstrate compliance with this visible emission standard for pneumatic conveyor systems (**ID Nos. APAP-8, APAP-17, APAP-18, and APAP-21**) or APAP sources equipped with broken bag detectors (**ID Nos. APAP-2, APAP-3, APAP-10, APAP-11, and APAP-12**).
- d. To assure compliance, once a month the Permittee shall observe the emission points of the bagfilters and dust collection system from the PAP sources (**ID Nos. PAP-2, PAP-3, PAP-7 and PAP-8**) 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 the source in the first 30 days following the effective date of the permit.** If visible emissions from this source are observed to be above normal, the Permittee shall either:
 - i. Take appropriate action to correct the above-normal emissions 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 .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1.B.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)]

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

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

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

C. Miscellaneous Storage, Loading, and Unloading Operations

Aniline bulk storage tank (ID No. PAP-10)

Nitrobenzene rail car unloading operations (ID No. PAP-11)

- Nitrobenzene storage tank (ID No. PAP-12)**
- Aniline loading station for trucks (ID No. PAP-25T)**
- Aniline loading station for railcars (ID No. PAP-25R)**
- Two (2) acetic acid storage tanks for APAP production (ID No. APAP-5A and APAP-5B)**
- Acetic anhydride bulk storage tank and rail receiving operation (ID No. APAP-4)**
- Truck/rail load out vent on four acetic acid (HOAC) storage tanks (ID No. APAP-7)**
- Six (6) acetic acid rinses (ID Nos. APAP-13.1, APAP-13.2, APAP-13.3, APAP-14.1, APAP-14.2, and APAP-15)**
- K-083 liquid waste storage tank, 10,000 gallon capacity (exhausting to boilers ID Nos. BH-1 and BH-2) (ID No. BH-6)**
- Raw wastewater holding tank (ID No. WW-3)**
- Acetic acid wastewater treatment plant storage tank (ID No. WW-4)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
NOx, SO ₂	Facility-wide emissions limitations to maintain minor source status under the PSD permitting program. See Section 2.2.A.1.	15A NCAC 2Q .0317 (PSD Avoidance)
TAP	<u>State-enforceable only</u> TAP <i>de minimus</i> levels See Section 2.2.A.2.	15A NCAC 2D .1100
TAP	<u>State-enforceable only</u> TAP <i>de minimus</i> levels See Section 2.2.A.3.	15A NCAC 2Q .0700
VOC	Work practices standard to limit VOC emissions. See Section 2.2.A.4.	15A NCAC 2D .0958
Odors	<u>State-enforceable only</u> See Section 2.2.A.5.	15A NCAC 2D .1806

- D. Natural gas/K-083 liquid waste fired boiler equipped with a low-NOx burner (18.6 million Btu per hour maximum heat input) (ID No. BH-1)**
- Natural gas/K-083 liquid waste fired boiler equipped with a low-NOx burner (30.6 million Btu per hour maximum heat input) (ID No. BH-2)**
- Natural gas-fired boiler equipped with a low-NOx burner (50 million Btu per hour maximum heat input) (ID No. BH-3)**
- Natural gas/No. 2 fuel oil/landfill gas-fired boiler equipped with a low-NOx burner (96.2 million Btu per hour maximum heat input) (ID No. BH-5)**
- Three (3) natural gas/No. 2 fuel oil-fired boilers (6.3 million Btu per hour maximum heat input each) (ID Nos. PB-1, PB-2, and PB-3)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	Particulate matter emissions shall not exceed limits provided in Section 2.1.D.1. below.	15A NCAC 2D .0503
Sulfur Dioxide	Sulfur dioxide emissions shall not exceed 2.3 pounds per million Btu heat input	15A NCAC 2D .0516

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible Emissions	Visible emissions shall not exceed 20% opacity (6-minute average) 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% opacity.	15A NCAC 2D .0521
Sulfur Dioxide	<u>Affected Source: ID No. BH-5 only</u> Sulfur content of fuel oil shall not exceed 0.5 percent by weight	15A NCAC 2D .0524 (40 CFR 60, Subpart Dc)
Visible Emissions	Visible emissions shall not exceed 20 percent opacity (6-minute average), except for one six-minute period per hour of not more than 27 percent opacity.	
HAP	<u>Affected Sources: ID Nos. BH-1 & BH-2 only</u> Combustion gases emitted into the atmosphere shall have pollutant concentrations below the following limitations: <ul style="list-style-type: none"> - Hg: 4.2e-05 lbs/MMBtu on an annual average - Cd & Pb: 8.2e-05 lbs/MMBtu on an annual average - Cr: 1.3e-04 lbs/MMBtu - CO: 100 ppmv, corrected to 7% oxygen, on a rolling hourly average - Hydrocarbons: 10 ppmv, corrected to 7% oxygen, on a rolling hourly average, reported as propane - HCl & Cl: 5.1e-02 lbs/MMBtu - PM: 80 mg/dscm, corrected to 7% oxygen 	15A NCAC 2D .1111 (40 CFR 63, Subpart EEE)
NOx, SO ₂	Facility-wide emissions limitations to maintain minor source status under the PSD permitting program. See Section 2.2.A.1.	15A NCAC 2Q .0317 (PSD Avoidance)
TAP	<u>State-enforceable only</u> <u>Affected Sources: ID Nos. BH-1 & BH-2 only</u> K-083 liquid waste combustion at ID No. BH-1 limited to 781 lbs/hr & at ID No. BH-2 to 1,051 lbs/hr. See Section 2.2.A.3.	15A NCAC 2D .1100
TAP	<u>State-enforceable only</u> TAP <i>de minimus</i> levels See Section 2.2.A.2.	15A NCAC 2Q .0700
VOC	Work practices standard to limit VOC emissions. See Section 2.2.A.4.	15A NCAC 2D .0958
Odors	<u>State-enforceable only</u> See Section 2.2.A.5.	15A NCAC 2D .1806

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

- a. Emissions of particulate matter emissions shall not exceed the emissions limitations listed in the following table:

Emission Source	Emission Limit (lbs/million Btu)
Boiler ID Nos. BH-1, BH-2, & BH-3	0.33
Boiler ID No. BH-5	0.28
Boiler ID Nos. PB-1, PB-2, and PB-3	0.27

Testing [15A NCAC 2D .2601]

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

results of this test are above the limit given in Section 2.1.D.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

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

- c. No monitoring/recordkeeping/reporting is required to demonstrate compliance with this standard for the firing of natural gas, landfill gas, No. 2 fuel oil, or K-083 liquid waste at the affected sources.

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

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

Testing [15A NCAC 2D .2601]

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

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

- c. No monitoring/recordkeeping/reporting is required to demonstrate compliance with this standard for the firing of natural gas, landfill gas, No. 2 fuel oil, or K-083 liquid waste at the affected sources.

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

- a. Visible emissions from the affected combustion sources (**ID Nos. BH-1, BH-2, BH-3, PB-1, PB-2, and PB-3**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 2D .2601]

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

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

- c. No monitoring/recordkeeping/reporting is required to demonstrate compliance with this standard for the firing of natural gas, landfill gas, No. 2 fuel oil, or K-083 liquid waste at the affected sources.

4. 15A NCAC 2D .0524: 40 CFR 60, Subpart Dc – NSPS for SMALL STEAM GENERATING UNITS

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524, “New Source Performance Standards” (NSPS), as promulgated in 40 CFR 60, Subpart Dc, including Subpart A, “General Provisions”, for the affected boiler (**ID No. BH-5**).

Emission Limitations [15A NCAC 2D .0524]

- b. The maximum sulfur content of any fuel oil received and fired in the affected boiler shall not exceed 0.5 percent by weight. [40 CFR 60.42c(d)]
- c. Visible emissions from the affected boiler shall not be more than 20 percent opacity when averaged over a six-minute period, except for one six-minute period per hour of not more than 27 percent opacity. [40 CFR 60.43c(c)]

Testing [15A NCAC 2D .2601]

- d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above a limit given in Section 2.1.D.4.b. or c. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

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

- e. The Permittee shall retain a copy of the fuel supplier certification for any No. 2 fuel oil fired at the affected boiler. The fuel supplier certification shall include the following information:
 - i. The name of the oil supplier;
 - ii. The sulfur content of the oil (in % by weight); and,
 - iii. A statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60.41c.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the sulfur content of the oil exceeds the limit provided in Section 2.1.D.4.b. of this permit or if fuel supplier certifications are not retained as described above. [40 CFR 60.46c(d), 40 CFR 60.48c(f)]

- f. Each calendar month, the Permittee shall record the total quantity of each fuel fired in the affected boiler during

the previous calendar month. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if it fails to create and retain the required records. [40 CFR 60.48c(g)(2)]

Reporting [15A NCAC 2Q .0508(f), 40 CFR 60.48c(e)(11), 40 CFR 60.48c(j)]

- g. The Permittee shall submit a written semiannual summary report to DAQ by January 30th of each calendar year for the preceding 6-month period between July and December and by July 30th of each calendar year for the preceding 6-month period between January and June. The summary report shall include the following:
- i. Calendar dates covered in the reporting period;
 - ii. Fuel supplier certification(s) for each fuel oil, as provided in Section 2.1.D.4.e. of this permit;
 - iii. A certified statement signed by the owner or operator that the records of fuel supplier certification(s) submitted represent all of the fuel fired at the affected boiler during the semiannual period; and,
 - iv. All instances of deviations with 15A NCAC 2D .0524 as provided in this permit during the reporting period.

5. 15A NCAC 2D .1111: 40 CFR 63, Subpart EEE – MACT for HAZARDOUS WASTE COMBUSTORS

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .1111, “Maximum Achievable Control Technology” (MACT), as promulgated in 40 CFR 63, Subpart EEE, “National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors”, including Subpart A, “General Provisions”, for the affected boilers (**ID Nos. BH-1 and BH-2**).

Emission Limitations [15A NCAC 2D .1111]

- b. The Permittee shall not discharge or cause combustion gas to be emitted into the atmosphere that contain pollutant concentrations at or above the following limitations:
- i. Mercury (Hg): 4.2e-05 lbs/MMBtu on an annual averaging period
 - ii. Cadmium and Lead, combined (Cd & Pb): 8.2e-05 lbs/MMBtu on an annual averaging period
 - iii. Chromium (Cr): 1.3e-04 lbs/MMBtu
 - iv. Carbon Monoxide (CO): 100 ppmv, corrected to 7% oxygen, on a rolling hourly average
 - v. Hydrocarbons: 10 ppmv, corrected to 7% oxygen, on a rolling hourly average, reported as propane
 - vi. Hydrogen Chloride and Chlorine (HCl & Cl): 5.1e-02 lbs/MMBtu
 - vii. Particulate Matter: 80 mg/dscm, corrected to 7% oxygen
- These standards apply at all times except during startup, shutdown, and malfunction events and at times when the affected boilers are not firing hazardous waste. The Permittee must perform intermediate calculations using at least three significant figures, but it may round the resultant emission levels to two significant figures to document compliance with the standards listed above. [40 CFR 63.1206(b)(1), 40 CFR 63.1217(a), (d), (f)]

Operating Standards [15A NCAC 2D .1111]

- c. The Permittee is required to achieve a destruction and removal efficiency (DRE) of 99.99% by weight for each principle organic hazardous constituent (POHC) in the waste material, as specified in 40 CFR 63.1217(c)(3)(ii). The Permittee demonstrated compliance with this standard during a September 2004 performance test. No further compliance demonstration is required, provided the Permittee does not modify the design or operation of the sources in a manner that could affect the ability to achieve the standard. [40 CFR 63.1217(c)(1), 40 CFR 63.1206(b)(7)(i)]
- d. The Permittee must calculate the hazardous waste residence time and include the calculation in the performance test plan, the operating record, and in any Notification of Compliance submitted to the NC DAQ. [40 CFR 63.1206(b)(11)]
- e. The Permittee shall control combustion system leaks of HAP by keeping the combustion zone of the affected boilers sealed. [40 CFR 63.1206(c)(5)(i)(A)]

Feed Rate Limits & the Feed Stream Analysis Plan [15A NCAC 2D .1111]

- f. The Permittee shall establish and comply with the following feed rate limits:
- i. **DRE & D/F**: Establish maximum 1-hour average limits on the total hazardous waste feed rates to each affected boiler during the performance test. [40 CFR 63.1209(j)(3), (k)(4)]

- ii. Hg: Establish a maximum mercury feed rate (in lbs/MMBtu) as provided in 40 CFR 63.1209(l)(1)(ii)(A)-(B). [40 CFR 63.1209(l)(1)(ii)]
- iii. Ash: Establish a maximum ash feed rate limit. [40 CFR 63.1209(m)(3)]
- iv. Semivolatile Metals (Cd & Pb): Establish a maximum semivolatile metal feed rate (in lbs/MMBtu) as provided in 40 CFR 63.1209(n)(2)(v)(A)(1)-(2) or 40 CFR 63.1209(n)(2)(vii). [40 CFR 63.1209(n)(2)(v)(A)]
- v. Chromium (Cr): Establish a rolling 12-hour average chromium feed rate (in lbs/MMBtu) as provided in 40 CFR 63.1209(n)(2)(v)(B)(1) or 40 CFR 63.1209(n)(2)(vii). [40 CFR 63.1209(n)(2)(v)(B)]
- vi. HCl & Cl: Establish a rolling 12-hour average maximum total chlorine and chloride feed rate limit. The feed rate limit shall be expressed as pounds of chlorine (organic and inorganic) per MMBtu. [40 CFR 63.1209(o)(1)(ii)]

Unless otherwise provided above, the averaging periods for the feed rate limits shall not exceed 12-months. **Within 90 days of completing the final initial performance test of the CCS, the Permittee shall submit a permit application to the NC DAQ to incorporate the established feed rate limits, as provided above. The incorporation of the operating feed rate limits to the permit may be made by administrative amendment to the existing air quality permit.** The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if the feed rate limits are exceeded.

- g. The Permittee must develop and implement a feed stream analysis plan and record it in the operating record. The plan must specify at a minimum:
 - i. The parameters that will be analyzed for each feed stream to ensure compliance with the operating parameter limits;
 - ii. The analysis procedures (e.g., sampling and analysis, using analytical information, or other methods);
 - iii. How the analysis will document compliance with applicable feed rate limits;
 - iv. Test methods used to obtain the analyses;
 - v. The sampling method used to obtain a representative sample of each feed stream to be analyzed using sampling methods described in 40 CFR 266, Appendix IX, or an equivalent method; and,
 - vi. The frequency at which the Permittee will review or repeat the initial analysis of the feed stream to ensure that the analysis is accurate and up-to-date.

The feed stream analysis plan shall be retained on-site, and shall be submitted to the NC DAQ for review and approval, if requested. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if the feed stream analysis plan is not developed and implemented as required above. [40 CFR 63.1209(c)(2)-(3)]

- h. To demonstrate compliance with the applicable feed rate limits, monitor and record feed rates as follows:
 - i. Determine and record the value of the parameter for each feed stream by sampling and analysis or other method;
 - ii. Determine and record the mass or volume flowrate of each feed stream by a CMS. If the volume of the feed stream is monitored, determine and record the density of the feed stream by sampling and analysis (unless you report the constituent concentration in units of weight per unit volume (e.g., mg/l)); and,
 - iii. Calculate and record the mass feed rate of the parameter per unit time.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if the feed rate is not monitored, or if the feed rate exceeds an applicable limit. [40 CFR 63.1209(c)(4)]

Operating Parameter Limits [15A NCAC 2D .1111]

- i. The Permittee is required to demonstrate compliance with the following parameter limits:
 - i. DRE & D/F: The combustion chamber temperatures shall not fall below the minimum temperatures established during the most recent performance test on an hourly rolling average. [40 CFR 63.1209(j)(1), (k)(2)]
 - ii. All: The flue gas flow rate shall not exceed the maximum limits established during the most recent performance test on an hourly rolling average. [40 CFR 63.1209(j)(2), (k)(3), (l)(2), (m)(2), (n)(5), (o)(2), (o)(3)(v)]
 - iii. DRE: The minimum atomizing steam pressure switch shall not fall below 60 psi for **ID No. BH-1** and 80 psi for **ID No. BH-2**, as provided by the manufacturer's specification, on an hourly rolling average. [40 CFR 63.1209(j)(4)]
 - iv. Hg, HCl, & Cl: The feed pressure of the scrubber water to the preconditioning chamber shall not fall

- below the minimum limit established during the most recent performance test on an hourly rolling average. [40 CFR 63.1209(m)(1)(iv)]
- v. Hg, HCl, & Cl: The pH of the scrubber water shall be limited as follows:
- (A) The pH of the scrubber water exiting the preconditioning chamber shall not fall below the minimum limit established during the most recent performance test on an hourly rolling average; and,
 - (B) The pH of the scrubber water exiting the Cloud Generating Vessel sump shall not fall below the minimum limit established during the most recent performance test on an hourly rolling average. [40 CFR 63.1209(l)(1)(ii)(D)(3), (o)(3)(iv)]
- vi. Hg, HCl, & Cl: The scrubber water flow rates shall be limited as follows:
- (A) The flow rate of the scrubber water to the preconditioning chamber shall not fall below the minimum limit established during the most recent performance test on an hourly rolling average;
 - (B) The flow rate of the scrubber water to the No. 1 Cloud Generating Vessel shall not fall below the minimum limit established during the most recent performance test on an hourly rolling average; and,
 - (C) The flow rate of the scrubber water to the No. 2 Cloud Generating Vessel shall not fall below the minimum limit established during the most recent performance test on an hourly rolling average. [40 CFR 63.1209(l)(2), (o)(3)(v)]
- vii. PM & Semi/Low-Volatile Metals: The blowdown rates, measured by the flow meter located immediately downstream of the preconditioning chamber recirculation tank, shall not fall below the minimum flow rate established during the most recent performance test on an hourly rolling average: [40 CFR 63.1209(m)(1)(i)(B)(1), (n)(3)]
- viii. PM & Semi/Low-Volatile Metals: The voltage on the charging heads shall be limited as follows:
- (A) No. 1 Cloud Generating Vessel:
 - 1. The voltage on charging head #1A shall not fall below the minimum limit established during the most recent performance test on an hourly rolling average; and,
 - 2. The voltage on charging head #1B shall not fall below the minimum limit established during the most recent performance test on an hourly rolling average.
 - (B) No. 2 Cloud Generating Vessel:
 - 1. The voltage on charging head #2A shall not fall below the minimum limit established during the most recent performance test on an hourly rolling average; and,
 - 2. The voltage on charging head #2B shall not fall below the minimum limit established during the most recent performance test on an hourly rolling average.
- [40 CFR 63.1209(m)(1)(iv), (n)(3)]

Within 90 days of completing the final initial performance test of the CCS, the Permittee shall submit a permit application to the NC DAQ to incorporate the established parameter limits, as provided above. The incorporation of the operating parameter limits to the permit may be made by administrative amendment to the existing air quality permit. The operating parameter limits above do not apply during comprehensive performance tests and/or pre-testing, as provided for in 40 CFR 63.1207(h).

Testing [15A NCAC 2D .1111]

- j. If any further performance testing is required, the testing shall be performed in accordance with 40 CFR 63.1206(b)(12), 15A NCAC 2D .2601, and General Condition JJ. If the results of this test are above the limit given above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.
- k. Anytime the Permittee is required to conduct DRE testing pursuant to 40 CFR 63.1206(b)(7), it shall also test hydrocarbon emissions. On a rolling hourly average basis, hydrocarbon emissions shall be less than 10 ppmvd, corrected to 7% oxygen, reported as propane. If the Permittee fails to conduct any such required hydrocarbon testing, or if the test results exceed the limit listed above, it shall be deemed in non-compliance with 15A NCAC 2D. 1111. [40 CFR 63.1217(a)(5)(i)]
- l. The Permittee shall conduct comprehensive performance testing at least once every 61 months, or as approved by NC DAQ – SSCB as provided in 40 CFR 63.1207(e)(3) or 40 CFR 63.1207(i). The next comprehensive performance test is required within 61 months of the date of commencing the previous comprehensive performance test.
 - i. Notification must be submitted to NC DAQ – SSCB at least one year prior to the proposed test is scheduled to begin, as provided in 40 CFR 63.1207(e)(1)(i). The test plan shall include the required information

listed in 40 CFR 63.1207(f).

- ii. Make the site-specific test plan and CMS performance evaluation test plan available to the public for review no later than 60 calendar days before initiation of the test, as provided in 40 CFR 63.1207(e)(2).
- iii. Operating conditions during the test must be consistent with 40 CFR 63.1207(g)(1).
- iv. Submit a Notification of Compliance to NC DAQ – SSCB following completion of a comprehensive performance test in accordance with 40 CFR 63.1207(j)(1).

The performance test shall be complete within 60 days of commencement, unless the NC DAQ – SSCB determines that time extension is warranted based on documentation in writing of factors beyond the Permittee’s control that prevents the Permittee from meeting the 60-day deadline. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if these requirements are not met. [40 CFR 63.1207(d)(1), (3)]

- m. The Permittee shall conduct confirmatory performance testing within 31 months of the date of commencing the previous comprehensive performance test (but not within 18 months of such test), or as approved by NC DAQ – SSCB as provided in 40 CFR 63.1207(e)(3) or 40 CFR 63.1207(i).
 - i. Notification must be submitted to NC DAQ – SSCB at least 60 days prior to the proposed test is scheduled to begin, as provided in 40 CFR 63.1207(e)(1)(ii). The test plan shall include the required information listed in 40 CFR 63.1207(f).
 - ii. Make the site-specific test plan and CMS performance evaluation test plan available to the public for review no later than 60 calendar days before initiation of the test, as provided in 40 CFR 63.1207(e)(2).
 - iii. Operating conditions during the test must be consistent with 40 CFR 63.1207(g)(2).
 - iv. Submit a Notification of Compliance to NC DAQ – SSCB following completion of a confirmatory performance test in accordance with 40 CFR 63.1207(j)(2).

The performance test shall be complete within 60 days of commencement, unless the NC DAQ – SSCB determines that time extension is warranted based on documentation in writing of factors beyond the Permittee’s control that prevents the Permittee from meeting the 60-day deadline. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if these requirements are not met. [40 CFR 63.1207(d)(2), (3)]

Automatic Waste Feed Cutoff Requirements [15A NCAC 2D .1111]

- n. The affected boilers must operate with a functioning automatic waste feed cutoff (AWFCO) system that immediately and automatically cuts off the hazardous waste feed in the following situations:
 - i. When any operating parameter limit is exceeded;
 - ii. When any emission limit monitored by a CEMS is exceeded;
 - iii. When the span value of any CMS detector, except a CEMS, is met or exceeded;
 - iv. Upon malfunction of a CMS monitoring an operating parameter limit or CEMS monitoring an emission limit; or,
 - v. When any component of the AWFCO system fails.

If the AWFCO system fails to automatically and immediately cutoff the flow of hazardous waste upon exceedance of a parameter listed above, the Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111. However, if equipment or other failures prevent immediate and automatic cutoff of the hazardous waste feed, the Permittee must cease feeding hazardous waste as quickly as possible. [40 CFR 63.1206(c)(3)(i), (iv)]

- o. During an AWFCO, the Permittee must continue to:
 - i. Duct combustion gases to the cloud chamber scrubber system (**ID No. CD-CCS**) while hazardous waste remains in the combustion chamber.
 - ii. Monitor emission limits and operating parameter limits during the AWFCO. The Permittee may not restart the hazardous waste feed until the monitored values are within the allowable limits.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if these requirements are not met. [40 CFR 63.1206(c)(3)(ii)-(iii)]

- p. Corrective Measures. If, after any AWFCO, there is an exceedance of an emission standard or operating requirement, irrespective of whether the exceedance occurred while hazardous waste remained in the combustion chamber, the Permittee must investigate the cause of the AWFCO, take appropriate corrective measures to minimize future AWFCOs, and record the findings and corrective measures in the operating record. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if these requirements are

not met. [40 CFR 63.1206(c)(3)(v)]

- q. **Weekly Testing.** The AWFCO system and associated alarms must be tested at least weekly to verify operability. You must document and record in the operating record AWFCO operability test procedures and results. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if these requirements are not met. [40 CFR 63.1206(c)(3)(vii)]
- r. **Reporting.** For each set of 10 exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber during a 60-day block period, the Permittee must submit a written report to the NC DAQ Regional Supervisor within 5 calendar days of the 10th exceedance documenting the exceedances and results of the investigation and corrective measures taken. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if these requirements are not met. [40 CFR 63.1206(c)(3)(vi)]

Operator Training & Certification [15A NCAC 2D .1111]

- s. The Permittee must ensure that the affected boilers are operated and maintained at all times by persons who are trained and certified to perform these and any other duties that may affect emissions of HAP, as provided in this section of the permit. A certified control room operator must be on duty at the site at all times the source is in operation. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if these requirements are not met. [40 CFR 63.1206(c)(6)(ii)]
- t. The Permittee must establish training programs for all categories of personnel whose activities may reasonably be expected to directly affect emissions of HAP from the affected boilers. Such persons include, but are not limited to, chief facility operators, control room operators, continuous monitoring system operators, persons that sample and analyze feed streams, persons that manage and charge feed streams to the combustor, persons that operate emission control devices, and ash and waste handlers. Each training program shall be of a technical level commensurate with the person's job duties specified in the training manual. Each commensurate training program shall require an examination to be administered by the instructor at the end of the training course. Passing of this test shall be deemed the "certification" for personnel, except that, for control room operators, the training and certification program shall be as specified below:
 - i. Control room operators must be trained and certified as provided in 40 CFR 63.1206(c)(6)(iv); and,
 - ii. Where a site-specific, source-developed and implemented program is used, control room operators must complete an annual review or refresher course as required in 40 CFR 63.1206(c)(vi).
 The Permittee must record the operating training and certification program in the operating record. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if these requirements are not met. [40 CFR 63.1206(c)(6)(i), (iv)-(vii)]

Operation & Maintenance Plan [15A NCAC 2D .1111]

- u. The Permittee must prepare and at all times operate according to an operation and maintenance plan that:
 - i. Describes in detail procedures for operation, inspection, maintenance, and corrective measures for all components of the affected boilers, including the cloud chamber scrubber system, that could affect emissions of regulated HAP; and,
 - ii. Prescribes how the Permittee will operate and maintain the affected boilers in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels achieved during the comprehensive performance test.

The operation and maintenance plan must be recorded in the operating record. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if these requirements are not met. [40 CFR 63.1206(c)(7)]

Monitoring [15A NCAC 2D .1111]

- v. **Heating Value.** The Permittee must determine the as-fired heating value of hazardous waste in accordance with the feedstream analysis plan specified in Section 2.1.D.5.g. above. The Permittee has already determined that the as-fired heating value of the currently fired hazardous waste is 10,000 Btu/lb or greater, as reflected in the standards listed above. If the as-fired heating value varies above and below 10,000 Btu/lb, the Permittee shall comply with the standards as provided in 40 CFR 63.1206(b)(16)(iv). Further, the Permittee shall file a permit application with the NC DAQ to revise the permit to reflect the standard applicable to a variable as-fired heating value, in accordance with the procedures in 15A NCAC 2Q .0300 and/or 15A NCAC 2Q .0500, as applicable.

- w. **Carbon Monoxide.** The Permittee shall install, calibrate, maintain, and continuously operate a carbon monoxide (CO) CEMS and an oxygen CEMS to continuously correct the CO level to 7% O₂ in accordance with the quality assurance procedures in the Appendix to 40 CFR 63, Subpart EEE and Performance Specification 4B.
- i. If a CO CEMS detects a response that results in a one-minute average at or above the 3,000 ppmv span level required by Performance Specification 4B, the one-minute average must be recorded as 10,000 ppmv. The one-minute 10,000 ppmv value must be used for calculating the hourly rolling average carbon monoxide level.
 - ii. Rolling averages from the CEMS data shall be calculated in accordance with 40 CFR 63.1209(a)(6).
[40 CFR 63.1209(a)(1)(i), (2), (3)]
- x. The Permittee must install and operate continuous monitoring systems to monitor each of the operating parameter limits listed in Section 2.1.D.5.i. above in conformance with 40 CFR 63.8(c)(3). At a minimum:
- i. Comply with the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system;
 - ii. The calibration of thermocouples must be verified at a frequency and in a manner consistent with manufacturer specifications, but no less frequent than once per year;
 - iii. Each CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds, and compute and record the average values at least every 60 seconds;
 - iv. The span of the CMS detector must not be exceeded, and the Permittee must interlock the span limits into the automatic waste feed cutoff system;
 - v. Calculation of rolling averages:
 - (A) During Intermittent Operations. The Permittee shall ignore periods of time when one-minute values from the CMS are not available for calculating rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling averages.
 - (B) The Permittee is not subject to the CMS requirements of this condition during periods when hazardous waste is not in the combustion chamber. However, the Permittee must continue monitoring operating parameter limits with a CMS when the hazardous waste feed is cutoff automatically, and the Permittee may not resume feeding hazardous waste if an operating parameter exceeds its limit.
- [40 CFR 63.1209(b)]

Changes in Design, Operation, or Maintenance [15A NCAC 2D .1111]

- y. The Permittee shall comply with the requirements provided in 40 CFR 63.1206(b)(5) if it makes any changes in the design, operation, or maintenance of the hazardous waste combustors. In addition, the Permittee must comply with all permitting requirements pursuant to 15A NCAC 2Q .0300 and/or 15A NCAC 2Q .0500, as applicable, prior to making such change.

Emergency Safety Vent [15A NCAC 2D .1111]

- z. The Permittee must develop an ESV operating plan, comply with the operating plan, and keep the plan in the operating record. The ESV operating plan must provide detailed procedures for rapidly stopping the waste feed, shutting down the combustor, and maintaining temperature and negative pressure in the combustion chamber during the hazardous waste residence time, if feasible. The plan must include calculations and information and data documenting the effectiveness of the plan's procedures for ensuring that combustion chamber temperature and negative pressure are maintained as is reasonably feasible. [40 CFR 63.1206(c)(4)(ii)]
- aa. If an emergency safety vent (ESV) opens when hazardous waste remains in the combustion chamber of either affected boiler:
- i. Document in the operating record whether it remained in compliance with the emission standards considering emissions during the ESV opening event. [40 CFR 63.1206(c)(4)(i)]
 - ii. After any ESV opening that results in a failure to meet the emission standards, investigate the cause of the ESV opening, take appropriate corrective measures to minimize such future ESV openings, and record the findings and corrective measures in the operating record. [40 CFR 63.1206(c)(4)(iii)]
 - iii. Submit to the NC DAQ a written report within 5 days of an ESV opening that results in failure to meet the

emission standards documenting the result of the investigation and corrective measures taken. [40 CFR 63.1206(c)(4)(iv)]

Startups, Shutdowns, and Malfunctions [15A NCAC 2D .1111]

- bb. The Permittee must develop and maintain a written startup, shutdown, and malfunction plan (SSMP) as provided in 40 CFR 63.6(e)(3). The plan must:
- i. Include a description of potential causes of malfunctions, including releases from ESVs, that may result in significant releases of HAPs, and actions being taken to minimize the frequency and severity of those malfunctions;
 - ii. Describe in detail procedures for operating and maintaining the affected boilers during periods of startup, shutdown, and malfunction;
 - iii. Describe in detail a program of corrective action for malfunctioning process, air pollution control, and monitoring equipment; and,
 - iv. Identified a projected oxygen correction factor based on normal operations to use during periods of startup and shutdown.
- The SSMP does not need to address any scenario that would not cause the source to exceed an applicable emission limitation. [40 CFR 63.1206(c)(2)(i), (iii)]
- cc. Maintain a current SSMP on-site and make the plan available upon request by NC DAQ for inspection and copying.
- i. If the SSMP is subsequently revised, maintain each previous (i.e., superseded) version of the SSMP on-site, and make each such previous version available for inspection and copying for a period of 5 years after revision of the plan.
 - ii. If at any time after adoption of a SSMP the affected boilers cease operation or are otherwise no longer subject to the provisions of 40 CFR 63, Subpart EEE, retain a copy of the most recent plan for 5 years and make the plan available upon request for inspection and copying. [40 CFR 63.1206(c)(2)(i)]
- dd. During malfunctions, the automatic waste feed cutoff requirements continue to apply, except for the corrective measures and reporting requirements in Sections 2.1.D.5.p. and r., respectively. If an emission standard monitored by a CEMS or operating parameter limit is exceeded, the automatic waste feed cutoff system must immediately and automatically cutoff the hazardous waste feed. However, if the malfunction itself prevents immediate and automatic cutoff of the hazardous waste feed, cease feeding hazardous waste as quickly as possible. [40 CFR 63.1206(c)(2)(v)(A)(1)]
- ee. **Excessive exceedances during malfunctions.** For each set of 10 exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, the Permittee must:
- i. Within 45 days of the 10th exceedance, complete an investigation of the cause of each exceedance and evaluation of approaches to minimize the frequency, duration, and severity of each exceedance, and revise the startup, shutdown, and malfunction plan as warranted by the evaluation to minimize the frequency, duration, and severity of each exceedance; and
 - ii. Record the results of the investigation and evaluation in the operating record, and include a summary of the investigation and evaluation, and any changes to the SSMP, in the semiannual excess emissions report. [40 CFR 63.1206(c)(2)(v)(A)(3)]

Recordkeeping [15A NCAC 2D .1111]

- ff. The Permittee shall create and retain the records listed below for a period of at least 5 years with the most recent 2 years of records maintained on-site. The records shall be maintained in a logbook (written or electronic format). All records must be made available to an authorized representative upon request.
- i. The calculated hazardous waste residence time;
 - ii. Documentation of investigations and evaluations of excessive exceedances during malfunctions;
 - iii. Description of corrective measures for any automatic waste feed cutoff that results in an exceedance of an emission standard or operating parameter limit;
 - iv. Documentation and results of the weekly automatic waste feed cutoff operability testing;
 - v. Records of the operator training and certification;

- vi. The operation and maintenance plan;
 - vii. The feedstream analysis plan;
 - viii. The results of all comprehensive and confirmatory testing;
 - ix. All CO CEMS monitoring data, as required in Section 2.1.D.5.w of this permit;
 - x. All CMS parameter monitoring data, as required in Section 2.1.D.5.x. of this permit;
 - xi. Documentation of any changes in the design, operation, or maintenance of the affected sources, as required in Section 2.1.D.5.y. of this permit;
 - xii. The ESV operating plan; and,
 - xiii. Description of corrective measures for any ESV opening.
- gg. For startup, shutdown, and malfunction events:
- i. When actions taken during a startup, shutdown, or malfunction are consistent with the procedures specified in the SSMP, create and retain records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a “checklist,” or other effective form of recordkeeping. In addition, create and retain records of these events as specified in paragraph 40 CFR 63.10(b), including records of the occurrence and duration of each startup, shutdown, or malfunction, including each malfunction of the air pollution control and monitoring equipment.
 - ii. If an action during a startup, shutdown, or malfunction is not consistent with the procedures specified in the SSMP, and an affected source exceeds any applicable emission limitation in the relevant emission standard, record the actions taken for that event and report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with § 63.10(d)(5). *[40 CFR 63.1206(c)(2)(i)]*

Notifications of Compliance [15A NCAC 2D .1111]

- hh. The Permittee shall submit a Notification of Compliance to the NC DAQ Regional Supervisor after each comprehensive and confirmatory performance test.
- i. The notification must be postmarked before the close of business on the 90th day following completion of the relevant test.
 - ii. Upon postmark of the Notification, the operating parameter limits identified in the Notification of Compliance shall replace the operating parameters in this permit.
 - iii. The Permittee shall also submit an application to the NC DAQ to revise the limits identified in the permit to be consistent with the most recent performance test. These operating parameters may be modified by administrative amendment.

Reporting [15A NCAC 2D .1111]

- ii. **Immediate Startup, Shutdown, Malfunction (SSM) Reports.** Any time an action taken by the Permittee during a startup or shutdown that caused an affected boiler to exceed any applicable emission limitation, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the SSMP, report the actions taken for that event to the NC DAQ – Regional Supervisor within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report shall consist of a telephone call (or fax transmission) to the NC DAQ – Regional Supervisor within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains:
- i. The name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy;
 - ii. An explanation of the circumstances of the event;
 - iii. An explanation of the reasons for not following the startup, shutdown, and malfunction plan;
 - iv. A description of all excess emissions and/or parameter monitoring exceedances which are believed to have occurred (or could have occurred in the case of malfunctions); and,
 - v. A description of actions taken to minimize emissions. *[40 CFR 63.10(d)(5)(ii)]*
- jj. **Periodic Startup, Shutdown, Malfunction (SSM) Reports.** Periodic SSM reports are only required if a startup or shutdown caused the source to exceed any applicable emission limitation in the relevant emission standards, or if a malfunction occurred during the reporting period. The Permittee shall submit any required periodic report to NC DAQ by January 30th of each calendar year for the preceding 6-month period between July and

December and by July 30th of each calendar year for the preceding 6-month period between January and June. The report shall include the following:

- i. The name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy;
- ii. Identify any actions taken during a startup, shutdown, or malfunction of an affected source are consistent with the procedures specified in the source's SSMP, including corrective actions taken during a malfunction. Actions taken to minimize emissions during such startups, shutdowns, and malfunctions may be summarized in checklist form and if actions taken are the same for each event, only one checklist is necessary; and,
- iii. Identify the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded.

Periodic SSM reports may be included with the excess emissions, CMS performance, and summary reports. [40 CFR 63.10(d)(5)(i)]

- kk. Periodic Excessive Emissions, CMS Performance, & Summary Reports. The Permittee shall submit a written semiannual periodic report to NC DAQ by January 30th of each calendar year for the preceding 6-month period between July and December and by July 30th of each calendar year for the preceding 6-month period between January and June.

- i. The Summary and CMS Performance Report shall contain the following information:
 - (A) The company name and address of the affected source;
 - (B) An identification of each hazardous air pollutant monitored at the affected source;
 - (C) The beginning and ending dates of the reporting period;
 - (D) A brief description of the process units;
 - (E) The emission and operating parameter limitations;
 - (F) The monitoring equipment manufacturers and model numbers;
 - (G) The date of the latest certification or audit for each CMS;
 - (H) The total operating time of the affected source during the reporting period;
 - (I) An emission data summary (or similar summary if the owner or operator monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;
 - (J) A CMS performance summary (or similar summary if the owner or operator monitors control system parameters), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes;
 - (K) A description of any changes in CMS, processes, or controls since the last reporting period;
 - (L) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and,
 - (M) The date of the report.
- ii. The Excess Emission Report shall contain the following information:
 - (A) The name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy;
 - (B) The date and time identifying each period during which each CMS was inoperative except for zero (low-level) and high-level checks;
 - (C) The date and time identifying each period during which each CMS was out of control, as defined in 40 CFR 63.8(c)(7);
 - (D) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances that occurs during startups, shutdowns, and malfunctions;

- (E) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances that occurs during periods other than startups, shutdowns, and malfunctions;
- (F) The nature and cause of any malfunction (if known);
- (G) The corrective action taken or preventive measures adopted;
- (H) The nature of the repairs or adjustments to the CMS that was inoperative or out of control;
- (I) The total process operating time during the reporting period;
- (J) When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.

[40 CFR 63.10(e)(3)]

**E. No. 2 fuel oil-fired emergency generator (800 kW) (ID No. PAR-11)
100 kW standby diesel generator serving the waste water treatment plant (Support Facilities)
(ID No. WW-1)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur Dioxide	Sulfur dioxide emissions shall not exceed 2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible Emissions	Visible emissions shall not exceed 20% opacity (6-minute average) 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% opacity.	15A NCAC 2D .0521
HAP	No requirements for existing, emergency generators at area sources [40 CFR 63.6590(b)(3)]	15A NCAC 2D .1111 (40 CFR 63, Subpart ZZZZ)
NOx, SO ₂	Facility-wide emissions limitations to maintain minor source status under the PSD permitting program. See Section 2.2.A.1.	15A NCAC 2Q .0317 (PSD Avoidance)
TAP	<u>State-enforceable only</u> TAP <i>de minimus</i> levels See Section 2.2.A.2.	15A NCAC 2D .1100
TAP	<u>State-enforceable only</u> TAP <i>de minimus</i> levels See Section 2.2.A.3.	15A NCAC 2Q .0700
VOC	Work practices standard to limit VOC emissions. See Section 2.2.A.4.	15A NCAC 2D .0958
Odors	<u>State-enforceable only</u> See Section 2.2.A.5.	15A NCAC 2D .1806

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

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

Testing [15A NCAC 2D .2601]

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

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

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

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

- a. Visible emissions from the emergency generators shall not be more than **20 percent opacity** each when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 2D .2601]

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

Monitoring/Recordkeeping/Reporting

- c. No monitoring, recordkeeping, or reporting is required for visible emissions from the firing of diesel fuel or No. 2 fuel oil in any emergency generator.

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

A. Facility Wide

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
NOx	Facility-wide NOx emissions shall be less than 100 tons per consecutive 12-month period.	15A NCAC 2Q .0317 (PSD Avoidance)
SO ₂	Facility-wide SO ₂ emissions shall be less than 100 tons per consecutive 12-month period.	15A NCAC 2Q .0317 (PSD Avoidance)
TAP	<u>State-enforceable only</u> Source-specific emissions limitations for acetic acid, ammonia, aniline, arsenic, benzene, chlorine, chromate compounds, HCl, and nitrobenzene.	15A NCAC 2D .1100
TAP	<u>State-enforceable only</u> TAP <i>de minimus</i> levels	15A NCAC 2Q .0700
VOC	Work Practice Standards for volatile organic compounds	15A NCAC 2D .0958
Odors	<u>State-enforceable only</u> Prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary	15A NCAC 2D .1806

1. 15A NCAC 2Q .0317: AVOIDANCE of 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. To maintain minor source status under 15A NCAC 2D .0530, facility-wide emissions shall be less than the following limitations:
 - i. Total sulfur dioxide (SO₂) emissions shall not exceed 100 tons during any consecutive 12-month period; and,
 - ii. Total nitrogen oxide (NOx) emissions shall not exceed 100 tons during any consecutive 12-month period.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3.

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

- c. The Permittee shall keep monthly records of total fuel usage in the affected combustion sources, including the Pharmaceutical and Medical Imaging Plant boilers and generators and the wastewater plant generator, in a logbook (written or in electronic format), as follows:
 - i. The total quantity of No. 2 fuel oil or diesel fired;
 - ii. The total quantity of natural gas fired;
 - iii. The total quantity of landfill gas fired; and,
 - iv. The total quantity of aniline tar fired.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if records of the fuel usage and fuel oil sulfur content are not created and retained as required above.
- d. The Permittee shall monitor the sulfur content (S) of the diesel and No. 2 fuel oil by using fuel oil supplier certification per shipment received. The results of the diesel and fuel oil supplier certifications shall be recorded in a logbook (written or electronic format) on a semiannual basis and include the following information:

- i. The name of the fuel oil supplier;
- ii. The maximum sulfur content of the fuel received during the quarter;
- iii. The method used to determine the maximum sulfur content of the fuel oil; and
- iv. A certified statement signed by the responsible official that the records of fuel oil supplier certification submitted represent all of the No. 2 fuel oil or diesel fuel fired during the period.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the sulfur content of the No. 2 fuel oil is not monitored and recorded.

- e. Each calendar month, the Permittee shall calculate emissions from all combustion sources for the previous month and previous 12-month period and record calculated emissions in a logbook (written or electronic format). Emissions calculations shall use the higher heating values and emissions factors listed below:

i. Higher Heating Values:

Natural Gas	No. 2 Fuel Oil	Aniline Tar	Diesel Fuel	Landfill Gas
1,000 Btu/scf	141,000 Btu/gal	14,000 Btu/lb	136,065 Btu/gal	520 Btu/scf

ii. SO₂ Emission Factors:

ID No.	Natural Gas	No. 2 Fuel Oil*	Aniline Tar	Diesel Fuel	Landfill Gas
	lbs/MMscf	lbs/1,000 gal	lbs/1,000 lbs tar	lbs/1,000 gal	lbs/MMscf
BH-1	0.6	-	3.11	-	-
BH-2	0.6	-	3.11	-	-
BH-3	0.6	-	-	-	-
BH-5	0.6	142(S)	-	-	2.42
PB1	0.6	142(S)	-	-	-
PB2	0.6	142(S)	-	-	-
PB3	0.6	142(S)	-	-	-
WW-1	-	-	-	39.7	-
PAR-11	-	142(S)	-	-	-

* S = Sulfur content of the fuel oil in % by weight. (Example: Where sulfur content is 0.5%, S = 0.5)

iii. NO_x Emission Factors:

ID No.	Natural Gas	No. 2 Fuel Oil	Aniline Tar	Diesel Fuel	Landfill Gas
	lbs/MMscf	lbs/1,000 gal	lbs/1,000 lbs tar	lbs/1,000 gal	lbs/MMscf
BH-1	103.95	-	8.78	-	-
BH-2	105	-	10.3	-	-
BH-3	48.3	-	-	-	-
BH-5	100	17.5	-	-	11.81
PB1	140	20	-	-	-
PB2	140	20	-	-	-
PB3	140	20	-	-	-
WW-1	-	-	-	604	-
PAR-11	-	451.2	-	-	-

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if records of the monthly calculations listed above are not retained or if one or more of the 12-month rolling emission totals are greater than the emission limits provided in Section 2.2.A.1.a. of this permit.

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

- f. The Permittee shall submit a semi-annual summary report, acceptable to the NC DAQ - Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
 - i. The monthly NO_x and SO₂ emissions for the previous 17 calendar months;

- ii. The 12-month rolling NO_x and SO₂ emissions for each 12-month period ending during the reporting period; and,
- iii. All instances of deviations from the requirements of this permit must be clearly identified.

STATE-ENFORCEABLE ONLY**2. 15A NCAC 2D .1100: CONTROL OF TOXIC AIR POLLUTANTS**

- a. Pursuant to 15A NCAC 2D .1100, "Control of Toxic Air Pollutants," and in accordance with the approved application for an air toxic compliance demonstration, the following permit limits shall not be exceeded:

Toxic Air Pollutant	Emission Source	Allowable Emission Rate
Acetic Acid	Packed Bed Scrubber (ID No. APAP-1)	0.292 lbs/hr
	135,000-gal storage tank (ID No. APAP-5A)	0.202 lbs/hr
	135,000-gal storage tank (ID No. APAP-5B)	0.202 lbs/hr
	Four (4) 20,000-gal storage tanks & truck/rail loadout (ID No. APAP-7)	0.618 lbs/hr
	APAP Fugitives (ID No. ES-Fugitives-APAP-9)	0.740 lbs/hr
	Rinse in Purified Blend Tanks and Centrifuge Feed Tank (ID No. APAP-13)	0.0154 lbs/hr
	Rinse in Purified Blend Tank (ID No. APAP-14)	0.0180 lbs/hr
	Rinse in Purified Blend Tank (ID No. APAP-15)	0.100 lbs/hr
	Wastewater Treatment Plant Fugitives (ID No. WW-3)	0.600 lbs/hr
	Acetic Acid Tank (ID No. WW-4)	0.825 lbs/hr
Ammonia	Ammonia Sulfate Boilers (ID No. PAP-14)	0.040 lbs/hr
	Fugitives from Ammonia Tanks & Piping (ID No. ES-Fugitives-PAP-21)	4.85 lbs/hr
	PAP-I and PAP-II Stack (ID No. PAPSCRUB)	0.200 lbs/hr
	APAP Liquid Ammonia Fugitive (ID No. ES-Fugitives-APAP-20)	8.49e-03 lbs/hr
Aniline	Boiler (ID No. BH-1)	0.0163 lbs/hr
	Boiler (ID No. BH-2)	0.0121 lbs/hr
	PAP Filter Changes (ID No. ES-Fugitives-PAP-26)	0.8738 lbs/hr
	PAP-I and PAP-II Stack (ID No. PAPSCRUB)	1.0 lbs/hr
	PAP Process Line LDAR Fugitives (ID No. ES-Fugitives-PAP-18)	0.273 lbs/hr
	PAP Building 201 Fugitives (ID No. ES-Fugitives-PAP-19)	0.137 lbs/hr
	PAP Building 205 Fugitives (ID No. ES-Fugitives-PAP-20)	0.137 lbs/hr
	Aniline Loading Truck Station (ID No. PAP-25T)	0.0536 lbs/hr
	Aniline Railcar Loading Rack (ID No. PAP-25R)	0.0536 lbs/hr
	Aniline Bulk Storage Tank (ID No. PAP-10)	0.16 lbs/hr
	Cloud Chamber Scrubber Stack (ID No. CD-CCS)	0.0283 lbs/hr
Arsenic (As) & Inorganic Arsenic Compounds	Boiler (ID No. BH-1)	0.153lbs/yr
	Boiler (ID No. BH-2)	0.202 lbs/yr
	Cloud Chamber Scrubber Stack (ID No. CD-CCS)	0.355 lbs/yr
Benzene	Hydrogenerators (ID No. PAP-1)	543 lbs/yr
	Hydrogenerators (ID No. PAP-6)	543 lbs/yr
	Railcar Unloading Fugitives (ID No. PAP-11)	4.91 lbs/yr
	Nitrobenzene Bulk Storage Tank (ID No. PAP-12)	2.85 lbs/yr
	PAP Process Line LDAR Fugitives (ID No. ES-Fugitives-PAP-18)	0.040 lbs/yr

Toxic Air Pollutant	Emission Source	Allowable Emission Rate
	PAP Building 201 Fugitives (ID No. ES-Fugitives-PAP-19)	0.040 lbs/yr
	PAP Building 205 Fugitives (ID No. ES-Fugitives-PAP-20)	0.040 lbs/yr
	Boiler (ID No. BH-1)	0.876 lbs/yr
	Boiler (ID No. BH-2)	1.14 lbs/yr
	PAP Filter Changes (ID No. ES-Fugitives-PAP-26)	0.0048 lbs/yr
	PAP-I and PAP-II Stack (ID No. PAPSCRUB)	208.57 lbs/yr
	Cloud Chamber Scrubber Stack (ID No. CD-CCS)	2.016 lbs/yr
Chlorine	Boiler (ID No. BH-1)	39.05 lbs/day
	Boiler (ID No. BH-2)	39.05 lbs/day
	Cloud Chamber Scrubber Stack (ID No. CD-CCS)	78.10 lbs/day
Soluble Chromate Compounds as Chromium (VI) Equivalent	Boiler (ID No. BH-1)	1.01 lbs/yr
	Boiler (ID No. BH-2)	1.39 lbs/yr
	Cloud Chamber Scrubber Stack (ID No. CD-CCS)	2.4 lbs/yr
Hydrogen Chloride	Boiler (ID No. BH-1)	0.142 lbs/hr
	Boiler (ID No. BH-2)	0.190 lbs/hr
	Cloud Chamber Scrubber Stack (ID No. CD-CCS)	0.333 lbs/hr
Nitrobenzene	Hydrogenerators (ID No. PAP-1)	0.457 lbs/hr 11.0 lbs/day
	Hydrogenerators (ID No. PAP-6)	0.457 lbs/hr 11.0 lbs/day
	Railcar/Truck Unloading Fugitives (ID No. PAP-11)	0.0276 lbs/hr 0.0663 lbs/day
	Nitrobenzene Bulk Storage Tank (ID No. PAP-12)	0.162 lbs/hr 3.89 lbs/day
	PAP Process Line LDAR Fugitives (ID No. ES-Fugitives-PAP-18)	0.137 lbs/hr 3.28 lbs/day
	PAP Building 201 Fugitives (ID No. ES-Fugitives-PAP-19)	0.137 lbs/hr 3.28 lbs/day
	PAP Building 205 Fugitives (ID Nos. ES-Fugitives-PAP-20)	0.137 lbs/hr 3.28 lbs/day
	PAP-I and PAP-II Stack (ID No. PAPSCRUB)	1.43 lbs/hr 34 lbs/day
	PAP Filter Changes (ID No. ES-Fugitives-PAP-26)	1.15 lbs/hr 3.43 lbs/day

Operational Restrictions

- b. To assure compliance with the toxic air pollutant emission limits specified above, the following conditions and limitations shall apply:
 - i. Production of APAP in Building 101 (**ID No. APAP-1**) shall not exceed 110 batches per day; and,
 - ii. Burning of K083 liquid waste in boilers (**ID Nos. BH-1 and BH-2**) shall not exceed 1,814 lbs/hr combined (rolling 1-hour average).

Inspection Requirements

- c. The Permittee shall perform periodic inspections and maintenance of the condensers (**ID Nos. COND-2 & COND-3**) as recommended by the equipment manufacturer, or at a minimum, the Permittee shall perform an annual (for each 12-month period following the initial inspection) internal inspection of the condenser system, as follows:
 - i. Inspect and maintain the structural integrity of the condensers, including inspection for leakage of coolant

- and, if the system is under positive gauge pressure, leakage of the contaminated gas stream. To indicate leakage of the coolant, the condensate shall be inspected for the presence of coolant; and,
- ii. Inspect and maintain the structural integrity of duct work and piping leading to and coming from the condenser.
- d. The Permittee shall perform periodic inspections and maintenance of the packed bed scrubber (**ID No. PAPSCRUB**) as recommended by the manufacturer, or at a minimum, the Permittee shall perform an annual (for each 12-month period following the initial inspection) internal inspection of the scrubber system, including an inspection of spray nozzles, packing material, chemical feed system (if so equipped), and the cleaning/calibration of all associated instrumentation.

Recordkeeping Requirements

- e. The Permittee shall record the number of batches of APAP produced each day on a monthly basis in a toxic air pollutant emissions logbook. The Permittee shall maintain strip chart recordings or electronic data of continuous tar feed to the two boilers to demonstrate compliance with the hourly feed rates limits.
 - i. The toxic air pollutant emissions log and strip charts and/or electronic records shall be made available for inspection by personnel of the NC DAQ.
 - ii. Maintain records of productions rates, throughputs, material usage, tar flow strip chart or electronic data, and other process operational information as is necessary to determine compliance with the air toxic emission limits specified above for a minimum of two years from the date of recording.
- f. The results of all condenser and packed bed scrubber 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 NC DAQ personnel upon request

Reporting Requirements

- g. Within 30 days following the end of each calendar year quarter, the Permittee shall submit, in writing, to the Air Quality Regional Supervisor, Division of Air Quality records of the daily APAP batches required in Section 2.2.A.2.e. above.

STATE-ENFORCEABLE ONLY

3. 15A NCAC 2Q .0700: TOXIC AIR POLLUTANT EMISSION RATES REQUIRING A PERMIT

Pursuant to 15A NCAC 2Q .0711 "Emission Rates Requiring a Permit," for each of the below listed toxic air pollutants (TAPs), the Permittee has made a demonstration that facility-wide actual emissions do not exceed the Toxic Permit Emission Rates (TPERs) listed in 15A NCAC 2Q .0711. The facility shall be operated and maintained in such a manner that emissions of any listed TAPs from the facility, including fugitive emissions, will not exceed TPERs listed in 15A NCAC 2Q .0711.

- a. A permit to emit any of the below listed TAPs shall be required for this facility if actual emissions from all sources will become greater than the corresponding TPERs.
- b. **PRIOR** to exceeding any of these listed TPERs, the Permittee shall be responsible for obtaining a permit to emit TAPs and for demonstrating compliance with the requirements of 15A NCAC 2D .1100, "Control of Toxic Air Pollutants".
- c. In accordance with the approved application, the Permittee shall maintain records of operational information demonstrating that the TAP emissions do not exceed the TPERs as listed below:

Pollutant	Carcinogens (lb/yr)	Chronic Toxicants (lb/day)	Acute Systemic Toxicants (lb/hr)	Acute Irritants (lb/hr)
Benzo(a)pyrene (Component of 83329/POMTV & 56553/7PAH) (50-32-8)	2.2			

Pollutant	Carcinogens (lb/yr)	Chronic Toxicants (lb/day)	Acute Systemic Toxicants (lb/hr)	Acute Irritants (lb/hr)
Cadmium Metal (elemental unreacted, Component of CDC) (7440-43-9)	0.37			
Carbon disulfide (75-15-0)		3.9		
Formaldehyde (50-00-0)				0.04
Manganese & compounds (MNC)		0.63		
Mercury, vapor (Component of HGC) (7439-97-6)		0.013		
Methylene chloride (75-09-2)	1,600		0.39	
Nickel metal (Component of 373024/NIC) (7440-02-0)		0.13		
Polychlorinated biphenyls (PCB) (1336-36-3)	5.6			
Toluene (108-88-3)		98		14.4

4. 15A NCAC 2D .0958: WORK PRACTICES FOR SOURCES OF VOLATILE ORGANIC COMPOUNDS

- a. Pursuant to 15A NCAC 2D .0958, for all sources that use volatile organic compounds (VOC) as solvents, carriers, material processing media, or industrial chemical reactants, or in similar uses that mix, blend, or manufacture volatile organic compounds, or emit volatile organic compounds as a product of chemical reactions, and whose emissions of VOC are greater than 15 pounds per day; the Permittee shall:
 - i. Store all material, including waste material, containing volatile organic compounds 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 volatile organic compounds as soon as possible following proper safety procedures,
 - iii. Store wipe rags containing volatile organic compounds in closed containers,
 - iv. Not clean sponges, fabric, wood, paper products, and other absorbent materials with volatile organic compounds,
 - v. Transfer solvents containing volatile organic compounds 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 volatile organic compounds 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 volatile organic compound, 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,
 - v. Not agitate solvent to the point of causing splashing.

Monitoring

- c. To assure compliance with paragraphs (a) and (b) above, the Permittee shall, at a minimum, perform a visual inspection once per month of all operations and processes utilizing volatile organic compounds. 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

- 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.If the required records are not maintained the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0958.

Reporting

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

STATE-ENFORCEABLE ONLY

5. 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.

2.3 - Other Applicable Requirements

- 1. **15A NCAC 2Q .0508(h): 40 CFR Part 68, "ACCIDENTAL RELEASE PREVENTION REQUIREMENTS: RISK MANAGEMENT PROGRAMS UNDER THE CLEAN AIR ACT, SECTION 112(r)"** - 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 Part 68.150 prior to June 21, 1999 or as specified in 40 CFR Part 68.10.

SECTION 3 - GENERAL CONDITIONS (version 3.1)

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

A. **General Provisions** [NCGS 143-215 and 15A NCAC 2Q .0508(i)(16)]

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

B. **Permit Availability** [15A NCAC 2Q .0507(k) and .0508(i)(9)(B)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environment and Natural Resources upon request.

C. **Severability Clause** [15A NCAC 2Q .0508(i)(2)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 2Q .0507(e) and 2Q .0508(i)(16)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

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

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

E. **Duty to Comply** [15A NCAC 2Q .0508(i)(2)]

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of

the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY

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

G. **Permit Modifications**

1. **Administrative Permit Amendments** [15A NCAC 2Q .0514]

The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 2Q .0514.

2. **Transfer in Ownership or Operation and Application Submittal Content** [15A NCAC 2Q .0524 and 2Q .0505]

The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 2Q.0524 and 2Q .0505.

3. **Minor Permit Modifications** [15A NCAC 2Q .0515]

The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 2Q .0515.

4. **Significant Permit Modifications** [15A NCAC 2Q .0516]

The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 2Q .0516.

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

The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 2Q .0517.

H. **Changes Not Requiring Permit Modifications**

1. **Reporting Requirements**

Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:

- a. changes in the information submitted in the application;
- b. changes that modify equipment or processes; or
- c. changes in the quantity or quality of materials processed.

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

2. **Section 502(b)(10) Changes** [15A NCAC 2Q .0523(a)]

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

3. **Off Permit Changes** [15A NCAC 2Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
 - a. The change affects only insignificant activities and the activities remain insignificant after the change; or
 - b. The change is not covered under any applicable requirement.
4. **Emissions Trading** [15A NCAC 2Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 2D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 2Q .0523(c).

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

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

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

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

Excess Emissions

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

Permit Deviations

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

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

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

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess emissions are a result of a

malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 2D .0535(c)(1) through (7).

2. 15A NCAC 2D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

and .0507.

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

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

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

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

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

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

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

FEDERALLY-ENFORCEABLE ONLY

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

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

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

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

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

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

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

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

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

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

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 the procedures outlined below:

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 description of the training and air testing experience of the person directing the test;
 - b. A certification of the test results by sampling team leader and facility representative;
 - c. 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);
 - d. 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;
 - e. All field, analytical, and calibration data necessary to verify that the testing was performed as specified in the applicable test methods;
 - f. Example calculations for at least one test run using equations in the applicable test methods and all test results including intermediate parameter calculations; and
 - g. 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.

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

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

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

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

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

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

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

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

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

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

OO. Mandatory Greenhouse Gas Reporting Requirements [15A NCAC 2Q .0508]

FEDERAL-ENFORCEABLE ONLY

If the Permittee is subject to requirements of 40 CFR 98.2(a), the Permittee shall submit all required reports to the EPA Administrator in accordance with 40 CFR 98.

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