



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

Michael F. Easley, Governor

William G. Ross, Jr., Secretary  
B. Keith Overcash, P.E., Director

May 9, 2008

Mr. Martin Lowry  
Site Leader  
Hexion Acme Facility  
333 Neils Eddy Road  
Riegelwood, North Carolina 28456

SUBJECT: Air Quality Permit No. 1394T38  
Facility ID: 2400093  
Hexion Acme Facility  
Riegelwood, Columbus County  
Fee Class: Title V

Dear Mr. Lowry;

In accordance with your completed Air Quality Permit Applications for a minor modification, an ownership change, and a name change received May 1, 2006 and January 1, 2007, we are forwarding herewith Air Quality Permit No. 1394T38 to the Hexion Acme Facility located in Riegelwood, 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 have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3 of Part I. **The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.**

**The Permittee shall file a Title V Air Quality Permit Application pursuant to 15A NCAC 2Q .0504 for the air emission sources (ID Nos. ES-002-05ww1, ES-002-05ww2, and ES-001-01T) on or before 12 months after commencing operation.**

**This control device (ID No. CD-001-02e) is listed under Part II of this permit as a minor modification per 15A NCAC 2Q .0515. The compliance certification as described in General Condition P is required. Unless otherwise notified by NC DAQ, the affected Part I terms of this permit (excluding the permit shield as described General Condition R) for this source shall become final on July 21, 2007. Until this date, the affected Part I permit terms herein reflect the proposed operating language that the Permittee shall operate this source under pursuant to 15A NCAC 2Q .0515(f).**

**This emission source (ID No. ES-002-05a) is listed under Part II of this permit as a minor modification per 15A NCAC 2Q .0515. The compliance certification as described in General Condition P is required. Unless otherwise notified by NC DAQ, the affected Part I terms of this permit (excluding the permit shield as described General Condition R) for this source shall become final on November 20, 2005. Until this date, the affected Part I permit terms herein reflect the proposed operating language that the Permittee shall operate**

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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](http://www.ncair.org)

One  
North Carolina  
*Naturally*

**this source under pursuant to 15A NCAC 2Q .0515(f).**

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 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 May 9, 2008 until January 31, 2009, 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 at (919) 715-6242.

Sincerely,

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

Enclosure

cc: Wilmington Regional Office  
Central Files

**ATTACHMENT I:**

**Summary of Changes to Title V Permit No. 01394T38:**

<b>Page(s)</b>	<b>Section</b>	<b>Description of Change(s)</b>
Page 1	Cover Sheet	Amend permit revision numbers and issuance/effective/ expiration/renewal dates.
Pages 3-5	Section 1, Table	<ul style="list-style-type: none"> <li>- Add “MACT FFFF” reference to emission sources in the Special Projects CMPU.</li> <li>- Add wastewater storage tank (<b>ID No. ES-002-05ww1</b>) and wastewater steam stripper (<b>ID No. ES-002-05ww1</b>) to Special Projects CMPU.</li> <li>- Add temporary, back-up boiler (<b>ID No. ES-001-01T</b>).</li> <li>- Add footnote (3) with modification procedure and Title V permit shield information.</li> </ul>
Page 7	Sec. 2.1. A.3.d.i.	Add clarification language to visible emission monitoring requirement in accordance with current DAQ protocol.
Page 9	Sec. 2.1. B.2.c.i.	Add clarification language to visible emission monitoring requirement in accordance with current DAQ protocol.
Page 13	Sec. 2.1. G.	<ul style="list-style-type: none"> <li>- Add wastewater storage tank (ID No. ES-002-05ww1) and wastewater steam stripper (ID No. ES-002-05ww1) to Special Projects CMPU.</li> <li>- Add reference to “MON” applicability to summary table of applicable regulations</li> <li>- Add “placeholder” language for “MON”, including initial compliance date and NOCS.</li> </ul>
Page 17	Sec. 2.1. H.3.e.ii.	Add clarification language to visible emission monitoring requirement in accordance with current DAQ protocol.
Pages 18-21	Section 2.1. J	Add section for new temporary, back-up boiler ( <b>ID No. ES-001-01T</b> ).
Pages 31-38	General Conditions	Update General Conditions with the most current version (v2.20), including new General Condition MM (Fugitive Dust).
Pages 40-42	Part II	Update Part II to include new emission sources, and include requirements for: <ol style="list-style-type: none"> <li>1) 2<sup>nd</sup>-Part significant modification submittal; and,</li> <li>2) Initial notification of the FIRST date of initial startup of any of the affected emission sources.</li> </ol>

**ATTACHMENT II:****Insignificant Activities Pursuant to 15A NCAC 2Q .0503(8)**

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>
IMDL	Methanol drum loading operation
INH3	Ammonia loading
IQA/QC	QA/QC Laboratories
ISF	Solids Feed System to Hexamine Tanks #3 and #4
IT1	100,000 gallon Hexamine Solution Tank #4
IT10	1,000 gallon Gasoline Tank
IT11	9,765 gallon Fuel Oil Tank
IT12	9,500 gallon Formaldehyde Tank #2
IT13	9,000 gallon Formaldehyde Tank #5
IT14	8,900 gallon Weak Formaldehyde Tank
IT15	8,800 gallon Formaldehyde Environmental Tank #1
IT16	8,800 gallon Formaldehyde Environmental Tank #2
IT17	1,500 gallon formaldehyde nurse Tank
IT2	12,000 gallon Blend Hexamine Tank #1
IT23	7,300 gallon Resin Tank #1
IT24	7,000 gallon Resin Tank #2
IT25	6,000 gallon Resin Tank #3
IT26	20,000 gallon Resin Tank #4
IT27	18,500 gallon Environmental Feed Tank #1
IT28	18,500 gallon Environmental Feed Tank #2
IT29	20,000 gallon Environmental Feed Tank #3
IT3	12,000 gallon Blend Hexamine Tank #2
IT30	20,000 gallon Environmental Intermediate Tank #1
IT31	20,000 gallon Environmental Intermediate Tank #2
IT32	20,000 gallon Environmental Intermediate Tank #3
IT33	6,200 gallon Process Water Tank
IT34	1,500 gallon Condensate/Boiler Feed Tank
IT35	6,000 gallon Condensate/Boiler Feed Tank
IT36	1,300 gallon Methanol (MeOH) Reflux Tank #1
IT37	5,400 gallon Dowtherm Tank
IT38	2,000 gallon Dowtherm Recirculation Tank
IT39	4,000 gallon B-Liquor Tank
IT4	9,000 gallon Blend Hexamine Tank #3
IT40	100 gallon Filter Wash Tank
IT41	9,700 gallon DIDP Oil Tank

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>
IT42	7,300 gallon TEA Tank
IT43	4,000 gallon Groutwright Tank
IT44	10,150 gallon PD-1303 Tank
IT45	10,150 gallon PC-540 Tank
IT46	50 gallon Recovac Tank
IT47	8,000 gallon Sulfuric Acid Tank
IT5	8,000 gallon Blend Hexamine Tank #4
IT51	22,000 gallon Special Projects Storage Tank
IT52	750 gallon Hot Well Tank
IST52	22,000 gallon liquid hexamine storage tank NSPS Kb
IT53	10,000 gallon Green Overheads Water Tank
IT6	6,100 gallon Blend Hexamine Tank #5
IT7	750 gallon Aniline Header Feed Tank
IT8	5,000 gallon Aniline Storage Tank
IT9	1,000 gallon Diesel Fuel Tank



## AIR QUALITY PERMIT

Permit No.	Replaces Permit No.	Effective Date	Expiration Date
01394T39	01394T38	May 9, 2008	January 31, 2009

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:**

**Hexion Acme Facility**

**Facility ID:**

2400093

**Facility Site Location:**

333 Neils Eddy Road

**City, County, State, Zip:**

Reigelwood, Columbus County, North Carolina 28456

**Mailing Address:**

333 Neils Eddy Road

**City, State, Zip:**

Reigelwood, North Carolina, 28456

**Application Number:**

2400093.08A

**Complete Application Date:**

March 18, 2008

**Primary SIC Code:**

2869

**Division of Air Quality,**

Wilmington Regional Office

**Regional Office Address:**

127 Cardinal Drive Extension  
Wilmington, NC 28405

Permit issued this the 9<sup>th</sup> of May, 2008

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# PART I

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

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

## SECTION 1- PERMITTED EMISSION SOURCES AND ASSOCIATED AIR POLLUTION CONTROL DEVICES 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
<b>Formaldehyde CMPU</b>			
MACT, PV1 ES-002-01.1 ES-002-01.2 ES-002-01.3 ES-002-01.4 ES-002-01.5 ES-002-01.6 ES-002-01.7 ES-002-01.8	Formaldehyde CMPU consisting of: Reactor, Reactor, Reactor, Ambient air blowers Product recovery absorption column Product recovery absorption column Product recovery absorption column Product recovery absorption column	CD-002-01a	Electrically-heated catalytic oxidizer
S1, S2, and S3 MACT G, sv1	Three methanol storage tanks (28,000 gallon capacity each)		
ES-004-T3 MACT G, sv2 ES-004-T6 MACT G, sv2 ES-004-T8 MACT G, sv2 ES-004-T9 MACT G, sv2 ES-004-T10 MACT G, sv2 ES-004-T11 MACT G, sv2	100,000 gallon formaldehyde storage tank 12,000 gallon formaldehyde storage tank 12,000 gallon formaldehyde storage tank 30,000 gallon formaldehyde storage tank 100,000 gallon formaldehyde storage tank 30,000 gallon formaldehyde storage tank	CD-002-01b	Scrubber (200 gallons per minute liquid injection rate)
ES-002-02 MACT G, to2	Formaldehyde Transfer Racks for truck loading and unloading equipped with a vacuum vapor collection system		
ES-002-03 MACT G, to2	Formaldehyde Drum Filling		
<b>Special Projects CMPU</b>			
ES-002-05a <sup>1</sup> MACT FFFF, bpv	6,000 gallon reactor	CD-002-05a	Condenser
ES-002-05b MACT FFFF, bpv	6,000 gallon reactor	CD-002-05b	Condenser

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control Device Description</b>
ES-002-05c MACT FFFF, bpv	5,000 gallon reactor	CD-002-05c	Condenser
ES-002-05ww1 <sup>3</sup> MACT FFFF, ww1	Wastewater Storage Tank; fixed-roof, 5,000 gallon capacity	NA	NA
ES-002-05ww2 <sup>3</sup> MACT FFFF, ww1	Wastewater Steam Stripper	CD-002-01a	Electrically-heated catalytic oxidizer
<b>Hexamine C MPU</b>			
ES-001-02.1 ES-001-02.2 ES-001-02.3 ES-001-02.4 ES-001-02.5 ES-001-02.6 ES-001-02.8 MACT G, pv1, ww2 (after air stripping and deionization steps)	Hexamine production facility consisting of: reactor evaporator crystalizer crystalizer distillation column centrifuge miscellaneous process tanks	CD-001-02b       CD-001-02a   CD-001-02f  CD-001-02b	<b><u>Primary Compliance Scenario</u></b> Natural gas/LPG-fired catalytic oxidizer  or <b><u>Alternative Compliance Scenario</u></b> Hexamine cyclonic packed tower scrubber (66 inches in diameter, 275 gallons per minute liquid injection) venting to Packed tower counter flow air scrubber (30 gallons per minute liquid injection) venting to Natural gas/LPG-fired catalytic oxidizer
ES-001-02f MACT G, pv1	air stripper for hexamine byproduct water	CD-001-02b	Natural gas/LPG-fired catalytic oxidizer
ES-001-04	Hexamine dryer	CD-001-02d	Bagfilter (7,200 square feet of filter area)
ES-001-05	Granular Hexamine pneumatic transfer system for transport of granular Hexamine from the Hexamine C MPU dryer and screen to the granular bagging operation	CD-001-02d	Bagfilter (7,200 square feet of filter area)
ES-001-06	Pneumatic free-flow product transfer system	CD-001-02c	Cartridge filter (2,400 square feet of filter area)
ES-001-07	Free-flow (pulverized) Hexamine bagging operation	CD-001-02e <sup>2</sup>	Cartridge filter; 3,040 square feet of filter area
<b>Other</b>			
ES-001-01	No. 2/No. 5/No. 6 fuel oil-fired Boiler (24.0 million Btu per hour heat input)	NA	NA
ES-001-01T <sup>3</sup> NSPS Dc	Temporary, back-up boiler; No. 2/No. 5/No. 6 fuel oil-fired (maximum heat input less than 30 million Btu per hour)	NA	NA
ES-003-03	Cooling tower	NA	NA
ES-003-05	Cooling tower	NA	NA
ES-003-06	Cooling tower	NA	NA
ES-005 MACT G, ww2	Lined Pond at Wastewater Treatment and associated wastewater streams	NA	NA

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control Device Description</b>
ES-007.1 MACT G, ww2	22,000 gallon Regeneration Tank	NA	NA
ES-007.2 MACT G, ww2	19,100 gallon Environmental Regeneration Tank #1	NA	NA
ES-007.3 MACT G, ww2	30,000 gallon Environmental Regeneration Tank #2	NA	NA
ES-007.4 MACT G, ww2	19,300 gallon Regeneration Overflow Tank	NA	NA
ES-007.5 MACT G, ww2	20,000 gallon Environmental Clean Water Tank #1	NA	NA
ES-007.6 MACT G, ww2	20,000 gallon Environmental Clean Water Tank #2	NA	NA
ES-007.7 MACT G, ww2	22,000 gallon Wastewater tank for the hexamine CMPU	NA	NA
ES-007.8 MACT G, ww2	22,000 gallon Wastewater tank for the hexamine CMPU	NA	NA
ES-007.9 MACT G, ww2	22,000 gallon Wastewater tank for the hexamine CMPU	NA	NA
ES-007.10 MACT G, ww2	22,000 gallon Wastewater tanks for the hexamine CMPU	NA	NA

1. This emission source (**ID No. ES-002-05a**) is listed as a minor modification per 15A NCAC 2Q .0515. The compliance certification as described in General Condition P is required. Unless otherwise notified by NC DAQ, the affected Part I terms of this permit (excluding the permit shield as described General Condition R) for this source shall become final on November 20, 2005. Until this date, the affected Part I permit terms herein reflect the proposed operating language that the Permittee shall operate this source under pursuant to 15A NCAC 2Q .0515(f).
2. This control device (**ID No. CD-001-02e**) is listed as a minor modification per 15 A NCAC 2Q .0515. The compliance certification as described in General Condition P is required. Unless otherwise notified by NC DAQ, the affected Part I terms of this permit (excluding the permit shield as described General Condition R) for this source shall become final on July 21, 2007. Until this date, the affected Part I permit terms herein reflect the proposed operating language that the Permittee shall operate this source under pursuant to 15A NCAC 2Q .0515(f).
3. These emission sources (**ID Nos. ES-002-05ww1, ES-002-05ww2, and ES-001-01T**) are listed as a 15A NCAC 2Q .0501(c)(2) modification. The permit shield described in General Condition R does not apply and compliance certification as described in General Condition P is not required.

## 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. No. 2/No. 5/No. 6 Fuel Oil-fired Boiler (24.0 million Btu per hour maximum heat input rate) (ID No. ES-001-01)

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	0.48 pounds per million Btu heat input	15A NCAC 2D .0503
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521
TAPs	<i>State Enforceable Only</i> – Control of Toxic Air Pollutants (See Section 2.2. B.2 – Multiple Emission Sources)	15A NCAC 2D. 1100

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

- a. Emissions of particulate matter from the combustion of No.2, No. 5 and No. 6 fuel oil, that are discharged from this source into the atmosphere shall not exceed 0.48 pounds per million Btu heat input.

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

- 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. A.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

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

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of No. 2/No. 5/No. 6 fuel oil in this source.

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

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

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

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(4) and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1. A.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- c. No monitoring/recordkeeping is required for sulfur dioxide emissions from No. 2 fuel oil for this source.
- d. The maximum sulfur content of any No. 5/No. 6 fuel oil received and burned in the boiler shall not exceed 2.1 percent by weight. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur content of the fuel oil exceeds this limit. [15A NCAC 2Q .0508(bb)]
- e. To assure compliance, the Permittee shall monitor the sulfur content of the No. 5/No. 6 fuel oil by using fuel oil supplier certification per shipment received. The results of the fuel oil supplier certifications shall be recorded in a logbook (written or electronic format) on a quarterly basis and include the following information:
  - i. The name of the fuel oil supplier;
  - ii. The maximum sulfur content of the fuel oil 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.5/No. 6 fuel oil fired during the period.  
The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur content of the oil is not monitored and recorded.

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

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

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

- a. Visible emissions from this boiler (**ID No ES-001-01**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

**Testing** [15A NCAC 2D .0501(c)(8)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1. A.3.a. (**ID No ES-001-01**) 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 for visible emissions from the firing of **No. 2 fuel oil** in this source.
- d. To assure compliance while combusting **No. 5 or No. 6 fuel oil**, once a day the Permittee shall observe the emission points of this source for any visible emissions above normal. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall be allowed three (3) days of absent observations per semi-annual period. If the emission source is not operating, a record of this fact along with the corresponding date and time shall substitute for the daily observation. 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 2D .0501(c)(8) (Method 9) for 12 minutes is below the limit given in Section 2.1 A.3.a. aboveIf 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.

**B. Formaldehyde CMPU (ID No. ES-002-01.1 through ES-002-01.8) consisting of:  
Three reactors, ambient air blowers, and four product recovery absorption columns  
controlled by an electrically-heated catalytic oxidizer (ID No. CD-002-01a)**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
HAPs	98% reduction or 20 ppm or TRE > 1.0	15A NCAC 2D .1111 40 CFR 63, Subpart G
HAPs	LDAR program and equipment specifications (See Section 2.2. A. – Multiple Emission Sources)	15A NCAC 2D .1111 40 CFR 63, Subpart H
VOC	Work practice standards (See Section 2.2. B.1 – Multiple Emission Sources)	15A NCAC 2D .0958
Visible emissions	40 percent opacity	15A NCAC 2D .0521
TAPs	<i>State Enforceable Only</i> – Control of Toxic Air Pollutants (See Section 2.2. B.2 – Multiple Emission Sources)	15A NCAC 2D. 1100

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

- a. For the formaldehyde CMPU (ID No. ES-002-01), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting requirements contained in Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subparts A, F, G, and H.

**Emission Standard** [15A NCAC 2D .0524]

- b. Pursuant to 40 CFR 63.113 the Permittee shall comply with the following requirements:
  - i. HAP emissions from the affected facility (ID Nos. ES-002-01) shall be controlled by the catalytic oxidizer (ID No. CD-002-01a).
  - ii. HAP emissions from the formaldehyde CMPU (ID No. ES-002-01) controlled by the catalytic oxidizer (ID No. CD-002-01a) shall be reduced by at least 98% or to an exhaust concentration of 20 ppm.

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

- c. The Permittee shall conduct performance tests as required by 40 CFR 63, Subpart G or as required by DAQ in writing. If emissions testing is required or otherwise performed by the Permittee for purposes of complying with 40 CFR 63 Subpart G, the testing shall be performed in accordance with 40 CFR 63.116, 40 CFR 63.7, and General Condition JJ. If the results of this test are above the limit given in Section 2.1. B.1.a. and b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.

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

- d. The Permittee shall comply with all applicable monitoring and recordkeeping requirements under 40 CFR 63, Subparts A, F, and G.
- e. To ensure compliance with the emission standard, the Permittee shall comply with the following monitoring and recordkeeping requirements:
  - i. Pursuant to 40 CFR 63.114(a) and 40 CFR 63.118(a), the Permittee shall monitor and maintain continuous records of the inlet gas stream temperature to the oxidizer and the outlet gas stream temperature from the catalytic oxidizer in accordance with the requirements of 40 CFR 63.152(f).
  - ii. Pursuant to 40 CFR 63.114(e), 40 CFR 63.118(a)(1), and 40 CFR 63.152(b)(2)(ii)(A), the minimum temperature rise across the catalyst bed shall be 250 °F to ensure catalytic oxidizer control efficiency.
  - iii. Pursuant to 40 CFR 63.118(a), the Permittee shall maintain records of the daily average upstream temperature, downstream temperature, and daily average temperature difference across the catalyst bed for each operating day. If all recorded values during an operating day are within the range established in the permit, a statement to this effect can be recorded instead of the daily average.
  - iv. Pursuant to 40 CFR 63.117, the Permittee shall maintain records of data from performance tests conducted for purposes of complying with 40 CFR 63 Subpart G including:
    - (A) Parameter monitoring results averaged over the test period, and
    - (B) Percent reduction of organic HAP or concentration.
  - v. Pursuant to 40 CFR 63.114(d), the Permittee shall maintain a lock and key or other similar device on each of the

oxidizer diversion stacks to ensure the process vent stream does not by-pass the catalytic oxidizer.

- vi. Pursuant to 40 CFR 63.114(d), the Permittee shall perform a visual inspection of the seal or closure mechanism at least monthly to ensure the bypass valve is closed.
- vii. Pursuant to 40 CFR 63.118(a), the Permittee shall maintain records of the monthly visual inspections of the lock and key or similar devices maintained on each oxidizer diversion stack and the duration of all periods that the key is checked out or emissions are otherwise diverted from the oxidizer.
- viii. Pursuant to 40 CFR 63.118(a), all records shall be kept up-to-date and readily accessible. All monitoring and recordkeeping data for the previous 6 months shall be made available within two-hours of a request by DAQ personnel.
- ix. Pursuant to 40 CFR 63.6(e)(3), the Permittee shall develop and implement a written start-up, shut-down, and malfunction plan. As required by 40 CFR 63.10, records shall be maintained of times, dates, durations, causes, reasons, actions taken, and other pertinent information related to any start-up, shut-down, or malfunction.
- x. Pursuant to 40 CFR 63.6(e), at all times including periods of start-up, shut-down, and malfunction, the Permittee shall operate and maintain the affected source and associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emission at least to the levels required by all relevant standards. As required by 40 CFR 63.10, records of all calibrations, checks, and maintenance activities shall be maintained and kept readily available.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the records of the monitoring results are not maintained or if one or more unexcused excursions of a monitored parameter occur during a reporting period. 40 CFR 63.152(c)(2)(ii)(B) allows one excused excursion per reporting period except as provided in 40 CFR 63.152(c)(2)(ii)(C).

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

- f. The Permittee shall comply with all applicable reporting requirements under 40 CFR 63, Subparts A, F, and G.
- g. Pursuant to 40 CFR 63.152, the Permittee shall submit periodic reports according to the schedule in 40 CFR 63.152. These reports shall be due within 60 days after the end of each 6-month period. The applicable reporting periods for this affected source are July through December and January through June. The periodic reports shall include:
  - i. The daily average values of monitored parameters for all operating days outside the established range. The Permittee will be required to report as excursions all daily average upstream temperatures and temperature differences that are outside the ranges established in the permit.
  - ii. The Duration of periods for each excursion due to insufficient data defined 40 CFR 63.152(c)(2)(ii)(A)(2), (3), and (4). Loss of any 15-minute period in an operating hour constitutes an invalid hour and days when at least 75% of the operating hours are not valid are considered insufficient monitoring data.
  - iii. All periods when the key is checked out or emissions are otherwise diverted from the oxidizer.
  - iv. The results of any performance tests as required by 40 CFR 63.117.
 All instances of deviations from the requirements of this permit must be clearly identified.
- h. The Permittee shall submit semiannual startup, shutdown, and malfunction reports as required under 40 CFR 63.10(d)(5)(i) and immediate startup, shutdown, and malfunction reports as required under 40 CFR 63.10(d)(5)(ii).

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

- a. Visible emissions from the formaldehyde CMPU (**ID No. ES 002-01**) controlled by the catalytic oxidizer (**ID No. CD-002-01a**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.

**Testing** [15A NCAC 2D .0501(c)(8)]

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

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

- c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. If 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 2D .0501(c)(8) (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)]

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

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

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

**C. Three Methanol Storage Tanks (28,000 gallon capacity each, ID Nos. S1, S2, and S3)**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
HAPs	95% reduction	15A NCAC 2D .1111 40 CFR 63, Subpart G
HAPs	Leak Inspection Provisions	15A NCAC 2D .1111 40 CFR 63, Subpart G
HAPs	LDAR program and equipment specifications (See Section 2.2. A. – Multiple Emission Sources)	15A NCAC 2D .1111 40 CFR 63, Subpart H

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

- a. For the methanol storage tanks (**ID Nos. S1, S2, and S3**), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting requirements contained in Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subparts A, F, G, and H.

**Emission Standard** [15A NCAC 2D .0524]

- b. Pursuant to 40 CFR 63.119, the Permittee shall route all organic HAP emissions from the methanol storage tanks to the catalytic oxidizer (**ID No. CD-002-01a**). The catalytic oxidizer shall be operated at all times and emissions from the methanol storage tanks routed to the unit, except:
  - i. during periods of startup, shutdown, and malfunction as allowed in 40 CFR 63.102(a)(1),
  - ii. the liquid level in the storage vessel is not increased, or
  - iii. the total aggregate amount of time during which the emissions bypass the catalytic oxidizer during the calendar year, for all reasons (with exceptions specified in 40 CFR 63.119(f)(3)(iii)), shall not exceed 240 hours.

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

- c. The Permittee shall comply with all applicable monitoring and recordkeeping requirements under 40 CFR 63, Subparts A, F, and G.
- d. As required under 40 CFR 63.123(a), the Permittee shall maintain readily accessible records showing the dimensions of the storage vessels and an analysis showing the capacity of the storage vessel.
- e. For periods that emissions from the methanol storage tanks bypass the catalytic oxidizer, the Permittee shall maintain readily accessible records of:
  - i. The reason it was necessary to bypass the catalytic oxidizer,
  - ii. The duration of the period the catalytic oxidizer was bypassed, and
  - iii. Documentation or certification of compliance with the applicable provisions of 40 CFR 63.119(f)(3)(i) through 40 CFR 63.119(f)(3)(iii) allowing the catalytic oxidizer to be bypassed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these records are not maintained.

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

- f. The Permittee shall comply with all applicable reporting requirements under 40 CFR 63, Subparts A, F, and G.
- g. Pursuant to 40 CFR 63.152, the Permittee shall submit periodic reports according to the schedule in 40 CFR 63.152. These reports shall be due within 60 days after the end of each 6-month period. The applicable reporting periods for this affected source are July through December and January through June. The periodic reports shall include all times when organic HAP emissions from the methanol storage tanks (**ID Nos. S1, S2, and S3**) are not routed to the catalytic oxidizer including specific dates, times, total amounts of time and the reasons, for each event during which the emissions bypass the catalytic oxidizer. All other instances of deviations from the requirements of this permit must be clearly identified.

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

- a. For the methanol storage tanks (**ID Nos. S1, S2, and S3**), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting requirements contained in Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subparts F, G, and H.
- b. Except as provided in 40 CFR 63.148(g) and (h), each vapor collection system and closed vent system shall be inspected according to the procedures and schedule specified in 40 CFR 63.148(b)(1) and (2), and 40 CFR 63.148(c).
- c. A leak is indicated by an instrument reading of 500 ppm or greater above background or by visual inspection.
- 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 40 CFR 63.148(d)(3) and 40 CFR 63.148(e). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
- e. For each vapor collection system or closed-vent system that contains by-pass lines that could divert a vent stream away from the control device and to the atmosphere, the Permittee shall comply with the provisions of either 40 CFR 63.148(f)(1) or (2).

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

- f. The Permittee shall comply with all applicable monitoring and recordkeeping requirements under 40 CFR 63, Subparts A, F, and G.
- g. The Permittee shall comply with all applicable monitoring and recordkeeping requirements under 40 CFR 63.148(i) including:
  - i. Identification of all parts of the vapor collection system, closed-vent system, fixed roof, cover, or enclosure that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.
  - ii. Identification of all parts of the vapor collection system, closed-vent system, fixed roof, cover, or enclosure that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.
  - iii. For each vapor collection system or closed-vent system that contains by-pass lines that could divert a vent stream away from the control device and to the atmosphere, the Permittee shall comply with the applicable recordkeeping provisions of 40 CFR 63.148(i)(3)(i) and (ii).
  - iv. The information specified under 40 CFR 63.148(i)(4) for each leak inspection during which a leak is detected.
  - v. For each inspection conducted according to the procedures of 40 CFR 63.148(c) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.
  - vi. For each visual inspection conducted according to the procedures of 40 CFR 63.148(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these records are not maintained.

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

- h. The Permittee shall comply with all applicable reporting requirements under 40 CFR 63, Subparts A, F, and G.
- i. The Permittee shall comply with all applicable reporting requirements of 40 CFR 63.148(j). The Permittee shall submit the following information with the reports required by 40 CFR 63.182(b) and Subpart H;
- j. The information specified in 40 CFR 63.148(i)(4) for inspections during which a leak is detected.
- k. Reports of all periods recorded pursuant to 40 CFR 63.148(i)(3)(ii) in which the seal mechanism is broken, the bypass line valve position has changed, or the key to unlock the bypass line valve was checked out.

**D. Six Formaldehyde Storage Tanks (ID No. ES-004-T3, ES-004-T6, and ES-004-T8 through ES-004-T11) controlled by scrubber (200 gallons per minute liquid injection rate, ID No. CD-002-01b)**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
HAPs	Keep readily accessible records of dimensions and capacity	15A NCAC 2D .1111 40 CFR 63, Subpart G
HAPs	LDAR program and equipment specifications (See Section 2.2. A. – Multiple Emission Sources)	15A NCAC 2D .1111 40 CFR 63, Subpart H
TAPs	<i>State Enforceable Only</i> – Control of Toxic Air Pollutants (See Section 2.2. B.2 – Multiple Emission Sources)	15A NCAC 2D. 1100

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

- a. For the formaldehyde storage tanks (ID No. ES-004), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting requirements contained in Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subparts F, G, and H.

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

- b. The Permittee shall comply with all applicable monitoring and recordkeeping requirements under 40 CFR 63, Subparts A, F, and G.
- c. As required under 40 CFR 63.123(a), the Permittee shall maintain readily accessible records showing the dimensions of the storage vessels and an analysis showing the capacity of the storage vessel.

**E. Formaldehyde Transfer Rack equipped with a Vacuum Vapor Collection System (ID No. ES-002-02) controlled by a scrubber (200 gallons per minute liquid injection rate, ID No. CD-002-01b)**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
HAPs	Keep readily accessible records	15A NCAC 2D .1111 40 CFR 63, Subpart G
TAPs	<i>State Enforceable Only</i> – Control of Toxic Air Pollutants (See Section 2.2. B.2 – Multiple Emission Sources)	15A NCAC 2D. 1100

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

- a. For the formaldehyde transfer rack (ID No. ES-002-02), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting requirements contained in Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subparts F, G, and H.

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

- b. The Permittee shall comply with all applicable monitoring and recordkeeping requirements under 40 CFR 63, Subparts A, F, and G.
- c. As required under 40 CFR 63.126(c), For each Group 2 transfer rack, the Permittee shall maintain records as specified in 40 CFR 63.130(f) in a readily accessible location on site including:
  - i. An analysis demonstrating the design and actual annual throughput of the transfer rack,
  - ii. An analysis documenting the weight percent organic HAPs in the liquid loaded, and
  - iii. Documentation that only organic HAP s with a partial pressure less than 10.3 kPa are transferred.
 The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these records are not maintained.

**F. Formaldehyde Drum Filling (ID No. ES-002-03) controlled by a scrubber (200 gallons per minute liquid injection rate, ID No. CD-002-01b)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
HAPs	Keep readily accessible records of dimensions and capacity	15A NCAC 2D .1111 40 CFR 63, Subpart G
HAPs	LDAR program and equipment specifications (See Section 2.2. A. – Multiple Emission Sources)	15A NCAC 2D .1111 40 CFR 63, Subpart H
VOC	Work practice standards (See Section 2.2. B.1 – Multiple Emission Sources)	15A NCAC 2D .0958
TAPs	<i>State Enforceable Only</i> – Control of Toxic Air Pollutants (See Section 2.2. B.2 – Multiple Emission Sources)	15A NCAC 2D. 1100

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

- a. For the formaldehyde drum filling (ID No. ES-002-03), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting requirements contained in Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subparts F, G, and H.

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

- b. The Permittee shall comply with all applicable monitoring and recordkeeping requirements under 40 CFR 63, Subparts A, F, and G.
- c. As required under 40 CFR 63.126(c), For each Group 2 transfer rack and/or drum filling, the Permittee shall maintain records specified in 40 CFR 63.130(f) in a readily accessible location on site including:
- An analysis demonstrating the design and actual annual throughput of the transfer rack and/or drum filling,
  - An analysis documenting the weight percent organic HAPs in the liquid loaded, and
  - Documentation that only organic HAPs with a partial pressure less than 10.3 kPa are transferred.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these records are not maintained.

**G. Special Projects CMPU (ID No. ES-002-05) consisting of:**

**Three reactors (6000, 6000, and 5000 gallon capacities) (ID Nos. ES-002-05a<sup>1</sup>, ES-002-05b, and ES-002-05c, respectively) controlled by condensers (ID Nos. CD-002-05a, CD-002-05b, and CD-002-05c);**

**Wastewater Storage Tank (ID No. ES-002-05ww1<sup>3</sup>); and,**

**Wastewater Steam Stripper (ID No. ES-002-05ww2<sup>3</sup>) with an associated electrically-heated catalytic oxidizer (ID No. CD-002-01a).**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
HAP	Miscellaneous Organic Chemical Manufacturing NESAHP (MON) <b>Initial Compliance Date: May 10, 2008</b>	15A NCAC 2D .1111 40 CFR 63, Subpart FFFF
VOC	Work practice standards (See Section 2.2. B.1 – Multiple Emission Sources)	15A NCAC 2D .0958
TAPs	<i>State Enforceable Only</i> – Control of Toxic Air Pollutants (See Section 2.2. B.2 – Multiple Emission Sources)	15A NCAC 2D. 1100

**1. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (MACT),**

**40 CFR 63, Subpart FFFF: NESHAP for Miscellaneous Organic Chemical Manufacturing (MON)**

- a. The Permittee shall comply with all applicable provisions contained in Environmental Management Commission Standard 15A NCAC 2D .1111, "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart FFFF by **May 10, 2008**, or as provided in the rule. [40 CFR 63.2445(b)]
- b. The Permittee shall submit a Notification of Compliance Status to the Wilmington Regional Office in accordance

with 40 CFR 63.2520(d) by **October 7, 2008**, or as provided in the rule.

**H. Hexamine CMPU consisting of:**

**Hexamine Production Facility (ID No. ES-001-02.1 through ES--1-02.8)**

**Air stripper for hexamine byproduct water (ID No. ES-001-02f)**

**Primary Operating Scenario**

**natural gas/LPG-fired catalytic oxidizer (ID No. CD-001-02b) on;**

**hexamine production facility (ID No. ES-001-02), and**

**Air stripper (ID No. ES-001-02f)**

**Alternative Operating Scenario**

**natural gas/LPG-fired catalytic oxidizer (ID No. CD-001-02b) installed on**

**packed tower counter flow air scrubber (ID No. CD-001-02f ) in series with**

**hexamine cyclonic packed tower scrubber (ID No. CD-001-02a) on;**

**hexamine production facility (ID No. ES-001-02)**

**Hexamine dryer (ID No. ES-001-04) with bagfilter (ID No. CD-001-02d)**

**Granular Hexamine pneumatic transfer system (ID No. ES-001-05) with bagfilter (ID No. CD-001-02d)**

**Pneumatic free-flow product transfer system (ID No. ES-001-06) with cartridge filter (ID No. CD-001-02c)**

**Free-flow (pulverized) hexamine bagging operation (ID No. ES-001-07) with cartridge filter (ID No. CD-001-02e<sup>2</sup>)**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
HAPs	98% reduction or 20 ppm or TRE > 1.0	15A NCAC 2D .1111 40 CFR 63, Subpart G
HAPs	LDAR program and equipment specifications (See Section 2.2. A. – Multiple Emission Sources)	15A NCAC 2D .1111 40 CFR 63, Subpart H
VOC	Work practice standards (See Section 2.2. B.1 – Multiple Emission Sources)	15A NCAC 2D .0958
Particulate Matter	$E = 4.10 \times P^{0.67}$ Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	40 percent opacity ( <b>ID No. ES-001-02 only</b> ) 20 percent opacity	15A NCAC 2D .0521
TAPs	<i>State Enforceable Only</i> – Control of Toxic Air Pollutants (See Section 2.2. B.2 – Multiple Emission Sources)	15A NCAC 2D. 1100

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

- a. For the Hexamine production facility (**ID No. ES-001-02**) and the hexamine by product water air stripper (**ID No. ES-001-02f**), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting requirements contained in Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subparts A, F, G, and H.

**Emission Standard** [15A NCAC 2D .0524]

- b. Pursuant to 40 CFR 63.113 the Permittee shall comply with the following requirements:

- i. HAP emissions from the affected facilities (**ID No. ES-001-02 and ES-001-02f**) shall be controlled by the catalytic oxidizer (**ID No. CD-002-001b**).
- ii. HAP emissions from the catalytic oxidizer shall be reduced by at least 98% or to an exhaust concentration of 20 ppm.

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

- c. The Permittee shall conduct performance tests as required by 40 CFR 63, Subpart G or as required by DAQ in writing. If emissions testing is required or otherwise performed by the Permittee for purposes of complying with 40 CFR 63 Subpart G, the testing shall be performed in accordance with 40 CFR 63.116, 40 CFR 63.7, and General Condition JJ. If the results of this test are above the limit given in Section 2.1. H.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.

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

- d. The Permittee shall comply with all applicable monitoring and recordkeeping requirements under 40 CFR 63, Subparts A, F, and G.
- e. To ensure compliance with the emission standard, the Permittee shall comply with the following monitoring and recordkeeping requirements:
  - i. Pursuant to 40 CFR 63.114(a) and 63.118(a), the Permittee shall monitor and maintain continuous records of the inlet gas stream temperature to the oxidizer and the outlet gas stream temperature from the catalytic oxidizer in accordance with the requirements of 40 CFR 63.152(f).
  - ii. Pursuant to 40 CFR 63.114(e), the minimum inlet temperature of 500 °F has been established to indicate proper operation of the catalytic oxidizer. (Note: need to discuss the addition of annual catalyst check during the inclusion of MON requirements.)
  - iii. Pursuant to 40 CFR 63.118(a), the Permittee shall maintain records of the daily average temperature upstream of the catalyst bed for each operating day. If all recorded values during an operating day are within the range established in the permit, a statement to this effect can be recorded instead of the daily average.
  - iv. Pursuant to 40 CFR 63.117, the Permittee shall maintain records of data from performance tests conducted for purposes of complying with 40 CFR 63 Subpart G including:
    - A. Parameter monitoring results averaged over the test period, and
    - B. Percent reduction of organic HAP or concentration.
  - v. Pursuant to 40 CFR 63.114(d), the Permittee shall maintain a lock and key or other similar device on each of the oxidizer diversion stacks to ensure the process vent stream does not by-pass the catalytic oxidizer.
  - vi. Pursuant to 40 CFR 63.114(d), the Permittee shall perform a visual inspection of the seal or closure mechanism at least monthly to ensure the bypass valve is closed.
  - vii. Pursuant to 40 CFR 63.118(a), the Permittee shall maintain records of the monthly visual inspections of the lock and key or similar devices maintained on each oxidizer diversion stack and the duration of all periods that the key is checked out or emissions are otherwise diverted from the oxidizer.
  - viii. Pursuant to 40 CFR 63.118(a), all records shall be kept up-to-date and readily accessible. All monitoring and recordkeeping data for the previous 6 months shall be made available within two-hours of a request by DAQ personnel.
  - ix. Pursuant to 40 CFR 63.6(e)(3), the Permittee shall develop and implement a written start-up, shutdown, and malfunction plan. As required by 40 CFR 63.10, records shall be maintained of times, dates, durations, causes, reasons, actions taken, and other pertinent information related to any start-up, shut-down, or malfunction.
  - x. Pursuant to 40 CFR 63.6(e), at all times including periods of start-up, shut-down, and malfunction, the Permittee shall operate and maintain the affected source and associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emission at least to the levels required by all relevant standards. As required 40 CFR 63.10, records of all calibrations, checks, and maintenance activities shall be maintained and kept readily available.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the records of the monitoring results are not maintained or if one or more unexcused excursions of a monitored parameter occurs during a reporting period. 40 CFR 63.152(c)(2)(ii)(B) allows one excused excursion per reporting period except as provided in 40 CFR 63.152(c)(2)(ii)(C).

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

- f. The Permittee shall comply with all applicable reporting requirements under 40 CFR 63, Subparts A, F, and G.
- g. Pursuant to 40 CFR 63.152, the Permittee shall submit periodic reports according to the schedule in 40 CFR 63.152. These reports shall be due within 60 days after the end of each 6 month period. The applicable reporting periods for

this affected source are July through December and January through June. The periodic reports shall include:

- i. The daily average values of monitored parameters for all operating days outside the established range. The Permittee will be required to report as excursions all daily average upstream temperatures and temperature differences that are outside the ranges established in the permit.
  - ii. The Duration of periods for each excursion due to insufficient data defined 40 CFR 63.152(c)(2)(ii)(A)(2), (3), and (4). Loss of any 15-minute period in an operating hour constitutes an invalid hour and days when at least 75% of the operating hours are not valid are considered insufficient monitoring data.
  - iii. All periods when the key is checked out or emissions are otherwise diverted from the oxidizer.
  - iv. The results of any performance tests as required by 40 CFR 63.117.
  - v. All instances of deviations from the requirements of this permit must be clearly identified.
- h. The Permittee shall submit semiannual startup, shutdown, and malfunction reports as required under 40 CFR 63.10(d)(5)(i) and immediate startup, shutdown, and malfunction reports as required under 40 CFR 63.10(d)(5)(ii).

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

- a. Emissions of particulate matter from the Hexamine dryer (**ID No. ES-001-04**), granular Hexamine pneumatic transfer system (**ID No. ES-001-05**), pneumatic free-flow product transfer system (**ID No. ES-001-06**), and the free-flow (pulverized) Hexamine bagging operation (**ID No. ES-001-07**) shall not exceed an allowable emission rate as calculated by the following equation:

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

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

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

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

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

- c. Particulate matter emissions from the Hexamine dryer (**ID No. ES-001-04**) and granular Hexamine pneumatic transfer system (**ID No. ES-001-05**) shall be controlled by the bagfilter (**ID Nos. CD-001-02d**). Particulate matter emissions from the pneumatic free-flow product transfer system (**ID No. ES-001-06**) shall be controlled by the cartridge filter (**ID No. CD-001-02c**). Particulate matter emissions from the free-flow (pulverized) Hexamine bagging operation (**ID No. ES-001-07**) shall be controlled by the cartridge filter (**ID No. CD-001-02e**). 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 bagfilter's and cartridge filter's structural integrity.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and control devices are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. The date and time of each recorded action;
  - ii. The results of each inspection;
  - iii. The results of any maintenance performed on the bagfilters and cartridge filters and
  - iv. Any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

- e. The Permittee shall submit the results of any maintenance performed on the bagfilters and cartridge filters within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each

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

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

- a. Visible emissions from the Hexamine production facility (**ID No. ES-001-02**) and free-flow (pulverized) Hexamine bagging operation (**ID No. ES-001-07**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.
- b. Visible emissions from the Hexamine dryer (**ID No. ES-001-04**), granular Hexamine pneumatic transfer system (**ID No. ES-001-05**), and pneumatic free-flow product transfer system (**ID No. ES-001-06**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

#### **Testing** [15A NCAC 2D .0501(c)(8)]

- c. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1. H.3.a. and/or b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- d. To assure compliance, once a week the Permittee shall observe the emission points of the Hexamine production facility (**ID No. ES-001-02**) for any visible emissions above normal. If visible emissions from this source are observed to be above normal, the Permittee shall either:
  - i. Take appropriate action to correct the above-normal emissions 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 2D .0501(c)(8) (Method 9) for 12 minutes is below the limit given in Section 2.1 H.3.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.
- e. To assure compliance, once a month the Permittee shall observe the emission points of the Hexamine dryer (**ID No. ES-001-04**), granular Hexamine pneumatic transfer system (**ID No. ES-001-05**), pneumatic free-flow product transfer system (**ID No. ES-001-06**), and the free-flow (pulverized) Hexamine bagging operation (**ID No. ES-001-07**) for any visible emissions above normal. If visible emissions from this source are observed to be above normal, the Permittee shall either:
  - i. Take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
  - ii. Demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1. H.3.a. and/or b. above, as applicable.
 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)]

- f. 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.
- g. Although a NO<sub>x</sub> plume is excluded from monitoring requirements under Section 2.1. H.3.d. above, if a NO<sub>x</sub> plume is observed within the monitoring period given in Section 2.1. H.3.d. above this should be documented in the logbook.

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

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

- I. Three Cooling Towers (ID Nos. ES-003-03, ES-003-05, and ES-003-06)**
- Lined Pond at Wastewater Treatment and associated wastewater streams (ID No. ES-005)**
- Ten Wastewater Storage Vessels (ID No. ES-007.1 through ES-007.10)**
  - 22,000 gallon Regeneration Tank (Red)**
  - 19,100 gallon Environmental Regeneration Tank#1**
  - 30,000 gallon Environmental Regeneration Tank#2**
  - 19,300 gallon Regeneration Overflow Tank**
  - 20,000 gallon Environmental Clean Water Tank#1**
  - 20,000 gallon Environmental Clean Water Tank#2**
  - 22,000 gallon Wastewater tank associated with the Hexamine CMPU**
  - 22,000 gallon Wastewater tank associated with the Hexamine CMPU**
  - 22,000 gallon Wastewater tank associated with the Hexamine CMPU**
  - 22,000 gallon Wastewater tank associated with the Hexamine CMPU**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
TAPs	<i>State Enforceable Only</i> – Control of Toxic Air Pollutants (See Section 2.2. B.2 – Multiple Emission Sources)	15A NCAC 2D. 1100

- J. Temporary<sup>1</sup>, back-up boiler (ID No. ES-001-01T<sup>3</sup>); No. 2, No. 5, and/or No. 6 fuel oil-fired (maximum heat input capacity of less than 30 million Btu per hour)**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Particulate matter	0.39 pounds per million Btu heat input	15A NCAC 2D .0503
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521(d)
Nitrogen oxides	Less than 40 tons per 12-month period	15A NCAC 2Q .0317 <i>Avoidance of 15A NCAC 2D .0530</i>
Sulfur dioxide	Less than 40 tons per 12-month period	15A NCAC 2Q .0317 <i>Avoidance of 15A NCAC 2D .0530</i>
<b>40 CFR 60, Subpart Dc</b>		
The following standards are only applicable to temporary, back-up boilers that commenced construction, reconstruction, or modification after June 9 <sup>th</sup> , 1989: <b>AND</b> that have a maximum heat input capacity equal to or greater than 10 million Btu per hour		
Sulfur dioxide	Sulfur content of fuel oil shall not exceed 0.5 percent by weight	15A NCAC 2D .0524 <i>40 CFR 60, Subpart Dc</i>

- 1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS**
  - a. Emissions of particulate matter from the combustion of No. 2, No. 5, and/or No. 6 fuel oil from any temporary, back-up boiler (ID No. ES-001-01T) shall not exceed 0.39 pounds per million Btu heat input.
    - Testing** [15A NCAC 2D .0501(c)(3)]
  - b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1. J.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

<sup>1</sup> “Temporary”, in this case, is descriptive only. There is no limit to the amount of time a back-up boiler authorized pursuant to this section of the permit may operate.

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

- c. No monitoring/recordkeeping/reporting is required for particulate matter emissions from the combustion of No. 2, No. 5, and/or No. 6 fuel oil.

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

- a. Emissions of sulfur dioxide from any temporary, back-up boiler (**ID No. ES-001-01T**) 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 .0501(c)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c) and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1. J.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- c. The Permittee shall monitor and record the sulfur content of the fuel oil in accordance with the requirements in Section 2.1. J.5.d. of this permit. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur content of fuel oil is not monitored as described above, or if the sulfur content exceeds the limit in Section 2.1. J.2.a. above.

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

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

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

- a. Visible emissions from any temporary, back-up boiler (**ID No. ES-001-01T**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

**Testing** [15A NCAC 2D .0501(c)(8)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ found in Section 3. If the results of this test are above any limit given in Section 2.1. J.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 for visible emissions from the firing of **No. 2 fuel oil** in the temporary, back-up boiler.
- d. To assure compliance while combusting **No. 5 or No. 6 fuel oil**, once a day the Permittee shall observe the emission points of the temporary, back-up boiler while firing these fuels for any visible emissions above normal. If visible emissions from the boilers 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 2D .0501(c)(8) (Method 9) for 12 minutes is below the limit given in Section 2.1. J.3.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 for No. 5 and No. 6 fuel oil firing shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and,
  - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 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 for **No. 5 and No. 6 fuel oil** firing 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.

**4. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS for 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. In order to avoid applicability of 15A NCAC 2D .0530(g) for major sources and major modifications, combined emissions from all temporary, back-up boiler(s) used at the facility (**ID No. ES-001-01T**) shall not exceed the following limits:
  - i. Total sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed 40 tons during any consecutive 12-month period; and,
  - ii. Total nitrogen oxide (NO<sub>x</sub>) emissions shall not exceed 40 tons during any consecutive 12-month period.

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

- b. The Permittee shall keep monthly records of fuel usage in a logbook (written or in electronic format), as follows:
  - i. The total quantity (in 1,000 gal) of No. 2 fuel oil fired in a temporary, back-up boiler;
  - ii. The total quantity (in 1,000 gal) of No. 5 fuel oil fired in a temporary, back-up boiler;
  - iii. The total quantity (in 1,000 gal) of No. 6 fuel oil fired in a temporary, back-up boiler; and,
  - iv. The fuel oil supplier certification for any fuel oil fired in a temporary, back-up boiler, including the sulfur content of the oil (in percent by weight).

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.

- c. Each calendar month, the Permittee shall emissions from all back-up boilers (**ID No. ES-001-01T**) for the previous month and previous 12-month period and record calculated emissions in a logbook (written or electronic format), according to the following formulas:
  - i. Calculate SO<sub>2</sub> and NO<sub>x</sub> emissions from the previous calendar month using the following equations:

$$E_{SO_2} = 142(S_{fo2})(Q_{fo2}) + 157(S_{fo5})(Q_{fo5}) + 157(S_{fo6})(Q_{fo6})$$

$$E_{NO_x} = 20(Q_{fo2}) + 55(Q_{fo5}) + 55(Q_{fo6})$$

Where,

- E<sub>SO<sub>2</sub></sub> = SO<sub>2</sub> emissions (in lbs) during the previous calendar month;
- E<sub>NO<sub>x</sub></sub> = NO<sub>x</sub> emissions (in lbs) during the previous calendar month;
- S<sub>fo2, fo5, fo6</sub> = Sulfur content in the No. 2, No. 5, or No. 6 fuel oil (in percent by weight); and,
- Q<sub>fo2, fo5, fo6</sub> = Quantity of No. 2, No. 5, or No. 6 fuel oil fired at a temporary boiler during the previous calendar month (in 1,000 gal).

- ii. Sum the SO<sub>2</sub> emissions from all temporary, back-up boilers for the previous 12-month period to determine the 12-month rolling emission total
- iii. Sum the NO<sub>x</sub> emissions from all temporary, back-up boilers for the previous 12-month period to determine the 12-month rolling emission total.

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 2.1. J.4.a. of this permit.

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

- d. *Semiannual Report.* The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
  - i. The monthly SO<sub>2</sub> and NO<sub>x</sub> emissions from all temporary, back-up boilers for the previous 17 calendar months;

- ii. The 12-month rolling SO<sub>2</sub> and NO<sub>x</sub> 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.

**5. 15A NCAC 2D .0524: NSPS 40 CFR PART 60, SUBPART Dc**

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

**Emission/Sulfur Content Limitation** [15A NCAC 2D .0524]

- b. The maximum sulfur content of any fuel oil received and burned in an affected temporary, back-up boiler (**ID No. ES-001-01T**) shall not exceed **0.5 percent by weight**. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if sulfur content of any fuel oil fired at the facility exceeds this limitation.

**Monitoring/Recordkeeping** [40 CFR 60.48c(g)(2), 40 CFR 60.46c(e), 40 CFR 60.48c(f)(1)-(2)]

- c. Each calendar month, the Permittee shall record the total quantity of each fuel fired in any NSPS-affected temporary, backup 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.
- d. The Permittee shall maintain fuel supplier certifications for each shipment of fuel oil received. The fuel supplier certification(s) shall include the following information:
  - i. For distillate (No. 2) fuel oil:
    - A. The name of the oil supplier;
    - B. A statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60.41c; and,
    - C. The sulfur content of the oil.
  - ii. For residual (No. 5 and No. 6) fuel oils:
    - A. The name of the oil supplier;
    - B. The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;
    - C. The sulfur content of the oil from which the shipment came (or the shipment itself); and
    - D. The method used to determine the sulfur content of the oil.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the sulfur content of fuel oils is not monitored as described above, or if the sulfur content exceeds the limit in Section 2.1. J.5.b. above.

**Notifications** [40 CFR 60.7(a)(1)]

- e. The Permittee shall submit a written initial notification of the date of actual, initial startup of any NSPS-affected temporary, backup boiler (**ID No. ES-001-01T**) within 15 days of such date. The notification shall be submitted to the Regional Supervisor.

**Reporting** [40 CFR 60.48c(e)(11), 40 CFR 60.48c(j)]

- f. 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 distillate and/or residual fuel oil, as provided in Section 2.1. J.5.d. 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.

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

### A. All HON-Affected Emission Sources (40 CFR 63, Subpart H)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
HAPs	LDAR program and equipment specifications	15A NCAC 2D .1111 40 CFR 63, Subpart H

#### 1. 15A NCAC 2D .1111 and 40 CFR 63, Subpart H - LEAK DETECTION AND REPAIR PROGRAM AND EQUIPMENT SPECIFICATIONS

- a. The requirements specified in this permit condition apply to pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, instrumentation systems, and control devices or closed vent systems that are part of the affected source subject to 40 CFR 63 Subpart G including the Formaldehyde CMPU (**ID No. ES-002-01**), Methanol Storage Tanks (**ID Nos. S1, S2, and S3**), Formaldehyde Storage Tanks (**ID No. ES-004**), Formaldehyde Transfer Rack (**ID No. ES-002-02**), Formaldehyde Drum Filling (**ID No. ES-002-03**), and Hexamine Production Facility (**ID No. ES-001-02**).
  - i. Standards - General
    - A. Compliance with these requirements will be determined by review of records required by 40 CFR 63.181, reports required by 40 CFR 63.182, review of performance test results and inspections.
    - B. Each piece of equipment in a process unit to which this subpart applies shall be identified so that it can be readily distinguished from equipment that is not subject to this subpart.
    - C. When each leak is detected as specified 40 CFR 63.163 and 40 CFR 63.164; 40 CFR 63.168 and 40 CFR 63.169; and 40 CFR 63.172 through 40 CFR 63.174, a weatherproof, readily visible identification marked with the equipment identification number shall be attached to the leaking equipment. The identification may be removed according to the procedures in 40 CFR 63.162(f)(2) and (3) as applicable.
    - D. In all cases where the provisions of this subpart require an owner or operator to repair leaks by a specified time after the leak is detected, it is a violation of this subpart to fail to take action to repair the leaks within the specified time. If action is taken to repair the leaks within the specified time, failure of that action to successfully repair the leak is not a violation of this subpart. However, if the repairs are unsuccessful, a leak is detected and the owner or operator shall take further action as required by applicable provisions of this subpart.
  - ii. Pumps in Light Liquid Service
    - A. The Permittee shall comply with all applicable requirements of 40 CFR 63.163. To ensure compliance for all pumps in light liquid service associated with the affected source, as a minimum, the Permittee shall monitor on a monthly basis each pump in light liquid service to detect leaks by the method specified in 40 CFR 63.180(b). A leak is determined by an instrument reading of 1000 ppm or greater (processes at this facility do not handle polymerizing monomers, 5000 ppm leak threshold, or have pumps in food/medical service, 2000 ppm leak threshold). Repair is not required unless an instrument reading of 2000 ppm or greater is detected.
    - B. 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 40 CFR 63.163(c)(3) and 40 CFR 63.171. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
    - C. If, calculated on a 6-month rolling average, the greater of either 10 percent of the pumps or three pumps in a process unit leak, the Permittee shall implement a quality improvement program for pumps that complies with the requirements of 40 CFR 63.176. The percent of leaking pumps shall be calculated according to the requirements in 40 CFR 63.163(d).
  - iii. Compressors
    - A. The Permittee shall comply with all applicable requirements of 40 CFR 63.164. Each compressor shall be equipped with a seal system that includes a barrier fluid system meeting the requirements of 40 CFR 63.164(b) and (c), and that prevents leakage of process fluid to the atmosphere except as provided by 40 CFR 63.164(h) and (i).
    - B. Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system or both. Each sensor shall be observed daily or equipped with an alarm according to 40 CFR 63.164(e). A leak is determined if the sensor indicates failure of the seal system, barrier fluid system or both.

- C. 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 40 CFR 63.163(c)(3) and 40 CFR 63.171. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
- iv. Pressure Relief Devices in Gas/Vapor Service
- A. The Permittee shall comply with all applicable requirements of 40 CFR 63.165. Each pressure relief device in gas/vapor service shall be operated with an instrument reading of less than 500 ppm above background as measured by the method specified in 40 CFR 63.180(c) except as provided in 40 CFR 63.165(b).
- B. After each pressure release, the pressure relief device shall be returned to a condition indicated by a instrument reading of less than 500 ppm above background as soon as practicable, but no later than 5 calendar days after each pressure release except as provided in 40 CFR 63.171. The pressure relief device shall be monitored no later than 5 calendar days after the pressure release and returning to organic HAP service.
- v. Sampling Connection Systems
- The Permittee shall comply with all applicable requirements of 40 CFR 63.166. Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed vent system meeting the requirements of 40 CFR 63.165(b). Gases displaced during filling of the sample container are not required to be collected or captured.
- vi. Open-ended Valves or Lines
- The Permittee shall comply with all applicable requirements of 40 CFR 63.167. Each open-ended valve or line shall be equipped with a cap, blind flange, or a second valve operated in accordance with 40 CFR 63.167(b) and (c), except as provided in 40 CFR 63.167(d) and (e). The cap, blind flange, or a second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance or repair.
- vii. Valves in Gas/Vapor Service and In Light Liquid Service
- A. The Permittee shall comply with all applicable requirements of 40 CFR 63.168. The Permittee shall monitor all valves to detect leaks by the method specified in 40 CFR 63.180(b) at the intervals specified in 40 CFR 63.168(d) except as provided in 40 CFR 63.168(h) and (i). A leak is determined by an instrument reading of 500 ppm or greater.
- B. At process units with 2 percent or greater leaking valves the Permittee shall monitor each valve once per month. At process units with less than 2 percent leaking valves, the Permittee shall monitor each valve once each quarter. At process units with less than 1 percent leaking valves, the Permittee may monitor each valve once every 2 quarters. At Process units with less than 0.5 percent leaking valves, the Permittee may monitor each valve once per 4 quarters. Percent leaking valves shall be determined according to 40 CFR 63.168(e).
- C. 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 40 CFR 63.171. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
- D. When a leak has been repaired it shall be monitored at least once within the first three months after its repair as specified in 40 CFR 63.168(f)(3).
- viii. Pumps, Valves, Connectors, Agitators in Heavy Liquid Service; Instrumentation Systems; and Pressure Relief Devices in Liquid Service
- A. The Permittee shall comply with all applicable requirements of 40 CFR 63.169. Pumps, valves, connectors, agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service shall be monitored within 5 calendar days by the method specified in 40 CFR 63.180(b) if evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method. If the potential leak is repaired according to 40 CFR 63.168(c) and (d), it is not necessary to monitor the system for leaks by the method specified in 40 CFR 63.180(b).
- B. If an instrument reading of 10,000 ppm or greater for agitators, 2000 ppm or greater for pumps, or 500 ppm or greater for valves, connectors, instrumentation systems, and pressure relief devices is measured, a leak is detected.
- C. 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 40 CFR 63.171. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
- ix. Surge Control Vessels and Bottoms Receivers
- A. The Permittee shall comply with all applicable requirements of 40 CFR 63.170. Each surge control vessel or bottoms receiver that is not routed back to the process and meets the conditions specified in table 2 or 3 of 40 CFR 63 Subpart H shall be equipped with a closed vent system that routes vented organic vapors back

to the process or to a control device that complies with the requirements of 40 CFR 63.172, or 40 CFR 63.119(b) or (c) of Subpart G.

x. Closed Vent Systems and Control Devices

- A. The Permittee shall comply with all applicable requirements of 40 CFR 63.172 for closed-vent systems and control devices used to comply with the provisions of Subpart H.
- B. Recovery or recapture devices (e.g. condensers and absorbers) shall be designed and operated to recover at least 95 percent of the organic HAP or VOC vented to them or reduce the exit concentration to an exit concentration of 20 ppmv, whichever is less stringent
- C. Enclosed combustion devices shall be designed and operated to reduce the organic HAP or VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 ppmv, whichever is less stringent, or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 C.
- D. The Permittee shall monitor all control devices used to comply with the provisions of 40 CFR 63 Subpart H to ensure that they are operated and maintained in conformance with their design.
- E. Except as provided in 40 CFR 63.172(k) and (l), each closed-vent system shall be inspected according to the procedures and schedule specified in 40 CFR 63.172(f)(1) and (f)(2).
- F. Each closed-vent system shall be inspected according to the procedures in 40 CFR 63.182(b).
- G. A leak is indicated by an instrument reading of 500 ppm or greater above background or by visual inspection.
- H. 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 40 CFR 63.171, except as provided in 40 CFR 63.172(i). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
- I. For each closed-vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the Permittee shall comply with the provisions of 40 CFR 63.172(j)(1) or (j)(2), except as provided in 40 CFR 63.172(j)(3).
- J. Whenever organic HAP emissions are vented to a closed-vent system or control device used to comply with 40 CFR 63 Subpart H, such system or control device shall be operating.

xi. Agitators in Gas/Vapor Service and In Light Liquid Service

- A. The Permittee shall comply with all applicable requirements of 40 CFR 63.173 except as provided in 40 CFR 63.173(d), (e), (f), (g), (h), and (i). Each agitator shall be monitored monthly to detect leaks by the method specified in 40 CFR 63.180(b). A leak is detected if an instrument reading of 10,000 ppm or greater is measured.
- B. Each agitator shall be checked by visual inspection each calendar week for indications of liquids dripping from the agitator. A leak is detected if indications of liquids dripping from the agitator are detected.
- C. 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 40 CFR 63.171, except as provided in 40 CFR 63.172(i). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

xii. Connectors in Gas/Vapor Service and in Light Liquid Service

- A. The Permittee shall comply with all applicable requirements of 40 CFR 63.174 except as provided in 40 CFR 63.174(f), (g), (h), and (j). The Permittee shall monitor all connectors in gas/vapor and light liquid service, except as provide in 40 CFR 63.174(f) through (h) at the intervals specified in 40 CFR 63.174(b). The connectors shall be monitored to detect leaks by the method specified in 40 CFR 63.180(b). A leak is detected if an instrument reading of 500 ppm or greater is measured. The Permittee shall monitor connectors once per year if the percent leaking connectors in the process unit was 0.5 percent or greater during the last required monitoring period. The Permittee shall monitor connectors once every 2 years if the percent leaking connectors in the process unit was less than 0.5 percent during the last required monitoring period. The Permittee may monitor connectors once every 4 years if the percent leaking connectors calculated for a process unit in a biennial leak detection and repair program is less than 0.5 percent. If a process unit using a 4-year monitoring interval program has 0.5 percent or greater but less than 1 percent leaking connectors, the Permittee shall increase monitoring frequency to once every 2 years. If a process unit using a 4-year monitoring interval program has 1 percent or greater leaking connectors, the Permittee shall increase monitoring frequency to one time per year. The percent leaking connectors shall be calculated as specified in 40 CFR 63.174(1) and (2).
- B. Except as provided in 40 CFR 63.174(c)(ii), each connector that has been opened or has otherwise had the seal broken shall be monitored for leaks when it is reconnected or within 3 months after being returned to organic HAP service. If a leak is detected it shall be repaired according to the provisions of paragraph (iii) and 40 CFR 63.174(d) unless it is determined to be nonrepairable as provided in 40 CFR 63.174(c)(i).

- C. 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 40 CFR 63.171, except as provided in 40 CFR 63.172(i). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

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

- b. The Permittee shall comply with all applicable recordkeeping requirements as prescribed in 40 CFR 63.181 including:
- i. A list of identification numbers for equipment subject to 40 CFR 63 Subpart H as required by 40 CFR 63.181(b)(1).
  - ii. A list of identification numbers for equipment that the Permittee elects to equip with a closed-vent system and control device under the provisions of 40 CFR 63.163(g), 40 CFR 63.164(h), 40 CFR 63.165(c), or 40 CFR 63.173(f).
  - iii. A list of identification numbers for pressure relief devices subject to the provisions in 40 CFR 63.165(d).
  - iv. Identification of screwed connectors subject to the requirements 40 CFR 63.174(c).
  - v. The information required under 40 CFR 63.181(b)(6) for each dual mechanical seal system.
  - vi. The information required under 40 CFR 63.181(b)(7) pertaining to all pumps subject to 40 CFR 63.163(j), valves subject to 40 CFR 63.168(h) and (i), agitators subject to 40 CFR 63.173(h) through (j), and connectors subject to 40 CFR 63.174(f) and (g).
  - vii. A list of valves removed from and added to the process unit as described in 40 CFR 63.168(e)(1).
  - viii. A list of connectors removed from and added to the process unit as described in 40 CFR 63.174(i)(1) and documentation of the integrity of the weld from any removed connectors as required in 40 CFR 63.174(j).
  - ix. The information required under 40 CFR 63.181(b)(9) for batch process units.
  - x. For visual inspections of equipment subject to the provisions of 49 CFR 63, Subpart H, the Permittee shall document that the inspection was conducted and the date of the inspection.
  - xi. When a leak is detected as specified in 40 CFR 63.163 and 40 CFR 63.164; 40 CFR 63.168 and 40 CFR 63.169 and 40 CFR 63.172 through 40 CFR 63.174, the information required under 40 CFR 63.181(d) shall be recorded.
  - xii. The information required under 40 CFR 63.181(e) for batch processes the Permittee elects to pressure test to demonstrate compliance.
  - xiii. The dates, results and other information required under 40 CFR 63.181(f) of each compliance test for compressors subject to 40 CFR 63.164(i) and monitoring following a pressure release for each pressure release device subject to 40 CFR 63.165(a) and (b).
  - xiv. Records of the information required by 40 CFR 63.181(g) for closed-vent systems and control devices subject to 40 CFR 63.172.
  - xv. The information required under 40 CFR 63.181(h) or process units subject to the requirements of 40 CFR 63.175 and 40 CFR 63.176 for quality improvement programs.
  - xvi. The information required under 40 CFR 63.181(i) for equipment in heavy liquid service.
  - xvii. Identification of equipment in organic HAP service less than 300 hours per year within a process unit subject to 40 CFR 63 Subpart H.

All records and information required under 40 CFR 63.181 shall be maintained in a manner that can be readily accessed at the plant site.

- c. The Permittee shall identify all HAP emission points, including those subject to and emission points not subject to 40 CFR 63 Subparts F, G, and H. Such information shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative of DENR upon request.

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

- d. The Permittee shall comply with all of the applicable reporting requirements by 40 CFR 63.182. At a minimum the periodic reports shall include:
- i. The number of valves for which leaks were detected as described in 40 CFR 63.168(b), the percent leakers, and the total number of valves monitored;
  - ii. The number of valves for which leaks were not repaired as required in 40 CFR 63.168(f), identifying the number of those that are determined nonrepairable;
  - iii. The number of pumps for which leaks were detected as described in 40 CFR 63.163(b), the percent leakers, and the total number of pumps monitored;
  - iv. The number of pumps for which leaks were not repaired as required in 40 CFR 63.163(c);
  - v. The number of compressors for which leaks were detected as described in 40 CFR 63.164(f);
  - vi. The number of compressors for which leaks were not repaired as required in 40 CFR 63.164(g) of this subpart;

- vii. The number of agitators for which leaks were detected as described in 40 CFR 63.173(a) and (b);
- viii. The number of agitators for which leaks were not repaired as required in 40 CFR 63.173(c);
- ix. The number of connectors for which leaks were detected as described in 40 CFR 63.174(a), the percent of connectors leaking, and the total number of connectors monitored;
- x. The number of connectors for which leaks were not repaired as required in 40 CFR 63.174(d), identifying the number of those that are determined nonrepairable;
- xi. The facts that explain any delay of repairs and, where appropriate, why a process unit shutdown was technically infeasible.
- xii. The results of all monitoring to show compliance with 40 CFR 63.164(i), 40 CFR 63.165(a), and 40 CFR 63.172(f) conducted within the semiannual reporting period.
- xiii. If applicable, the initiation of a monthly monitoring program under 40 CFR 63.168(d)(1)(i), or a quality improvement program under either 40 CFR 63.175 or 40 CFR 63.176.
- xiv. If applicable, notification of a change in connector monitoring alternatives as described in 40 CFR 63.174(c)(1) of this subpart.
- xv. If applicable, the compliance option that has been selected under 40 CFR 63.172(n).
- xvi. Periodic reports shall be submitted within 60 days after the end of each six-month period. The applicable reporting periods for this affected source are July through December and January through June.

**B. All Emission Sources**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
VOC	Work practice standards	15A NCAC 2D .0958
TAPs	Control of Toxic Air Pollutants; <b>State-enforceable only</b>	15A NCAC 2D. 1100
Odor	Control and Prohibition of Odorous Emissions; <b>State-enforceable only</b>	15A NCAC 2D .1806

**1. 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. [15A NCAC 2D .0958(c)]
- 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. [15A NCAC 2D .0958(d)]

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

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

- d. The results of the inspections shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. The date and time of each inspection; and
  - ii. The results of each inspection noting whether or not noncompliant conditions were observed.
- If the required records are not maintained the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0958.

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

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

**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:
- i. Ammonia
    - (A) Total ammonia emissions from the three reactors (**ID Nos. ES-002-05a, ES-002-05b, and ES-002-05c; emission points EP-002-05a, EP-002-05b, and EP-002-05c, respectively**) at the Special Projects CMPU; shall not exceed **5.62** pounds per hour,
    - (B) Ammonia emissions from the catalytic oxidizer (**ID No. CD-001-02b; emission point EP-001-02b**) installed on the air stripper (**ID No. CD-001-02f**) **or** the Hexamine cyclonic packed tower scrubber (**ID No. CD-001-02a**) and the packed tower counter flow scrubber (**ID No. CD-001-02f**) installed on the Hexamine production facility consisting of miscellaneous tanks, one reactor, one evaporator, two crystallizers, one distillation column, and one centrifuge shall not exceed **0.8** pounds per hour,
    - (C) Ammonia emissions from the formaldehyde scrubber (**ID No. CD-002-01b**) shall not exceed **2.28** pounds per hour,
    - (D) Ammonia emissions from each of three cooling towers (**ID Nos. 3, 5, and 6**) shall not exceed **6.62** pounds per hour each, and
    - (E) Ammonia area source emissions from the waste water treatment plant shall not exceed **1.05** pounds per hour
  - ii. Aniline
    - (A) Total aniline emissions from the following sources shall not exceed 2.14 pounds per hour:
      - (1) the three reactors (**ID Nos. ES-002-05a, ES-002-05b, and ES-002-05c**) with emission points EP-002-05a, EP-002-05b, and EP-002-05c (respectively) at the Special Projects CMPU; and
      - (2) emission sources ducted to the hexamine catalytic oxidizer (**ID Nos. CD-001-02b**) with emission point EP-001-02b
    - (B) Aniline emissions from the 750 gallon Aniline Header Feed Tank (Insignificant Source) at the Dry Projects CMPU shall not exceed 0.05 pounds per hour, and
    - (C) Aniline emissions from the 5,000 gallon Aniline Storage Tank (Insignificant Source) at the Dry Projects CMPU shall not exceed 0.32 pounds per hour
  - iii. Formaldehyde
    - (A) Total formaldehyde emissions from the three reactors (**ID Nos. ES-002-05a, ES-002-05b, and ES-002-05c; emission points EP-002-05a, EP-002-05b, and EP-002-05c, respectively**) at the Special Projects CMPU shall not exceed **0.146** pounds per hour,
    - (B) Total formaldehyde emissions from **EP-001-02b** including the Hexamine CMPU emissions shall not exceed **0.336** pounds per hour,
    - (C) Fugitive formaldehyde emissions from the Hexamine CMPU shall not exceed **0.006** pounds per hour,
    - (D) Formaldehyde emissions from the formaldehyde process (**ID No. ES-002-01**) and catalytic oxidizer (**ID No. CD-002-01a**) shall not exceed **0.23** pounds per hour,
    - (E) Formaldehyde emissions from the formaldehyde handling (**ID Nos. ES-002-02 and ES-002-03**) and storage (**ID No. ES-004**) scrubber (**ID No. CD-002-01b**) including the formaldehyde transfer racks shall not exceed **0.071** pounds per hour,
    - (F) Formaldehyde emissions from each of three cooling towers (**ID Nos. ES-003-03, ES-003-05, and ES-003-**

- 06** shall not exceed **0.51** pounds per hour, and
- (G) Formaldehyde area emissions from the waste water treatment plant shall not exceed **0.031** pounds per hour.
- iv. Methyl Mercaptan  
Total methyl mercaptan emissions from the three reactors (**ID Nos. ES-002-05a, ES-002-05b, and ES-002-05c; emission points EP-002-05a, EP-002-05b, and EP-002-05c, respectively**) at the Special Projects CMPU shall not exceed **0.131** pounds per hour.
- v. All Other TAPs  
(A) 24-hour, 1-hour, and annual allowable TAP emission rates as total emission rates from the following sources shall not exceed the TAP emission rates listed in the following table:
- (1) Three reactors (**ID Nos. ES-002-05a, ES-002-05b, and ES-002-05c**) with emission points EP-002-05a, EP-002-05b, and EP-002-05c (respectively) located in the Special Projects CMPU; and
  - (2) Emission sources ducted to the hexamine catalytic oxidizer (**ID Nos. CD-001-02b**) with emission point EP-001-02b

Toxic Air Pollutants	Emission Rates		
	lb/hr	lb/24-hr	lb/yr
Acetaldehyde	70.7		
Acetic Acid	9.7		
Acrolein	0.21		
Acrylonitrile			2.04e+02
Arsenic and inorganic arsenic compounds			3.13e-01
Aziridine		0.943	
Benzene			1.62e+02
Benzidine & salts			2.04e-02
Benzo(a)pyrene			4.48e+01
Benzyl chloride	1.31		
Beryllium			5.57e+00
Beryllium chloride			5.57e+00
Beryllium fluoride			5.57e+00
Beryllium nitrate			5.57e+00
Bioavailable chromate pigments, as chromium (VI) equivalent			1.13e-01
Bis-chloromethyl ether			5.03e-01
Bromine	0.524		
1,3 Butadiene			2.31e+02
Cadmium compounds			7.47e+00
Cadmium acetate			7.47e+00
Cadmium bromide			7.47e+00
Carbon disulfide		29.2	
Carbon tetrachloride			9.11e+03
Chlorine	2.36	6.0	
Chlorobenzene		346	
Chloroform			5.87e+03
Chloroprene	9.17	69.2	
Cresol	5.76		
p-Dichlorobenzene	172.92		
Dichlorodifluoromethane		38,985	
Dichlorofluoromethane		78.5	
Di(2-ethylhexyl)phthalate		4.80	
Dimethyl sulfate		0.470	
1,4-dioxane		88.1	
Epichlorohydrin			1.13e+05
Ethyl acetate	367		
Ethylenediamine	6.55	47.0	

Toxic Air Pollutants	Emission Rates		
	lb/hr	lb/24-hr	lb/yr
Ethylene dibromide			5.44e+02
Ethylene dichloride			5.17e+03
EGME glycol ether	4.98	19.0	
Ethylene oxide			3.67e+01
Ethyl mercaptan	0.262		
Fluorides	0.655	2.40	
Hexachlorocyclopentadiene	0.030	0.094	
Hexachlorodibenzo-p-dioxin			1.03e-01
n-Hexane		173	
Hexane isomers (except n)	943		
Hydrazine		0.094	
Hydrogen chloride	1.83		
Hydrogen cyanide	2.88	22	
Hydrogen fluoride	0.655	4.80	
Hydrogen sulfide	--	--	--
Maleic anhydride	0.262	1.89	
Manganese compounds		4.80	
Manganese cyclopentadienyl tricarbonyl		0.094	
Manganese tetraoxide		0.97	
Mercury, alkyl		0.009	
Mercury, aryl & inorganic compounds		0.094	
Mercury vapor		0.094	
Methyl chloroform	642	1,887	
Methylene chloride	4.5		3.26e+04
Methyl ethyl ketone	232	582	
Methyl isobutyl ketone	78.6	403	
Nickel carbonyl		0.094	
Nickel metal		0.943	
Nickel soluble compounds		0.094	
Nickel subsulfide			2.86e+00
Nitric acid	2.62		
Nitrobenzene	1.31	9.36	
N-nitosodimethylamine			6.80e+01
Non-specific chromium (VI) compounds, as chromium (VI) equivalent			1.13e-01
Pentachlorophenol	0.070	0.472	
Perchloroethylene			2.58e+05
Phenol	2.49		
Phosgene		0.393	
Phosphine	0.341		
Polychlorinated biphenyls			1.13e+02
Soluble chromate compounds, as chromium (VI) equivalent		0.097	
Styrene	27.8		
Sulfuric acid	0.262	1.887	
Tetrachlorodibenzo-p-dioxin			4.10e-03
1,1,1,2-tetrachloro-2,2, difluoroethane		8,177	
1,1,2,2-tetrachloro-1,2, difluoroethane		8,177	
1,1,2,2-tetrachloroethane			8.59e+03
Toluene	147	739	
Toluene diisocyanate, 2,4 & 2,6 isomers		0.031	
Trichloroethylene			8.02e+04

Toxic Air Pollutants	Emission Rates		
	lb/hr	lb/24-hr	lb/yr
Trichlorofluoromethane	1,467		
1,1,2-trichloro-1,2,2-trifluoroethane	2,489		
Vinyl chloride			5.16e+02
Vinylidene chloride		18.9	
Xylene	170	425	

- vi. To ensure compliance with the above limits, the following restrictions shall apply:
- (A) Formaldehyde emissions from the formaldehyde process (**ID No. ES-002-01**) shall be controlled by catalytic-oxidizer (**ID No. CD-002-01a**),
- (B) Formaldehyde emissions from formaldehyde drum loading, tank truck loading/unloading, and storage tank venting shall be controlled by scrubber (**ID No. CD-002-01b**),
- (C) Formaldehyde emissions from the Hexamine production facility consisting of:
- (1) Miscellaneous tanks, one reactor, one evaporator, two crystallizers, one distillation column and one centrifuge shall be vented to a cyclonic packed tower scrubber (**ID No. CD-001-02a**), the ammonia packed tower counter flow scrubber (**ID No. CD-001-02f**) and the catalytic oxidizer (**ID No. CD-001-02b, emission point EP-001-02b**), in series; **or**
  - (2) Formaldehyde process (**ID No. ES-001-02**) and air stripper (**ID No. ES-001-02f**) vented to the catalytic oxidizer (**ID No. CD-001-02b, emission point EP-001-02b**),
- (D) No products that emit any toxic air pollutants other than formaldehyde shall be produced in the three reactors (**ID Nos. ES-002-05a, ES-002-05b, and ES-002-05c**) without the prior notification and approval of the DAQ,
- (E) No thermoset amino resins, as defined in 40 CFR 64.1402, shall be produced in any of the three reactors (**ID Nos. ES-002-05a, ES-002-05b, and ES-002-05c**) for the greatest operating time or for the greatest percentage of total production for any consecutive five year period,
- (F) Gaseous emissions from:
- (1) Hexamine centrifuges and reactor (**ID No. ES-001-02**) shall be controlled by either a cyclonic packed tower scrubber (**ID No. CD-001-02a**) and the packed tower counter flow scrubber (**ID No. CD-001-02f**) in series **or** packed tower counter flow air stripper (**ID No. CD-001-02f**) ducted to the catalytic oxidizer (**ID No. CD-001-02b**)
  - (2) Formaldehyde emissions from formaldehyde handling and storage (**ID No. ES-004**), formaldehyde transfer racks (**ID No. ES-002-02**) and formaldehyde drum filling (**ID No. ES-002-03**) shall be controlled by scrubber (**ID No. CD-002-01b**)
  - (3) Inspection and Maintenance Requirements – To comply with the provisions of this permit and ensure that emissions do not exceed the regulatory limits, the Permittee shall perform periodic inspections and maintenance as recommended by the manufacturer. In addition, the Permittee shall perform an annual internal inspection of the scrubber system. As a minimum, the annual internal inspection will include inspection of spray nozzles, packing material, chemical feed system (if so equipped), and the cleaning/calibration of all associated instrumentation annually.
  - (4) Recordkeeping Requirements – The results of all inspections and any variance from manufacturer's recommendations or from those given in this permit (when applicable) shall be investigated with corrections made and dates of actions recorded in a logbook. Records of all maintenance activities shall be recorded in the logbook. The logbook (in written or electronic form) shall be kept on-site and made available to DAQ personnel upon request.
- (G) Gaseous emissions from:
- (1) The packed tower(s) installed on the Hexamine CMPU operations (**ID No. ES-001-02**) shall be controlled by catalytic oxidizer (**ID No. CD-001-02b**),
  - (2) The Formaldehyde CMPU operations (**ID No. ES-002-01**) shall be controlled by a catalytic oxidizer (**ID No. CD-002-01a**), and
  - (3) Inspection and Maintenance Requirements – To comply with the provisions of this permit and ensure that emissions do not exceed the regulatory limits, the Permittee shall perform periodic inspection and maintenance (I&M) as recommended by the manufacturer. As a minimum, the Permittee shall perform an annual internal inspection of the primary heat exchanger and associated inlet/outlet valves to ensure structural integrity.
  - (4) Recordkeeping Requirements – The results of all inspections and any variance from

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

- b. For compliance purposes, records of all feed stock constituents, their respective quantities, batch start and batch stop times, shall be maintained in a logbook for Special Projects reactors (**ID Nos. ES-002-05a, ES-002-05b, and ES-002-05c**) shall be maintained on-site, and made available to DAQ personnel upon request.

**STATE-ENFORCEABLE ONLY**

**3. 15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS**

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

**SECTION 3 - GENERAL CONDITIONS** (v2.20)

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

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

1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 2D and 2Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility that 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

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

H. **Changes Not Requiring Permit Modifications**

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

The Permittee may make changes in the operation or emissions without revising the permit if:

  - a. the change affects only insignificant activities and the activities remain insignificant after the change; or
  - b. the change is not covered under any applicable requirement.
3. Emissions Trading [15A NCAC 2Q .0523(c)]

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

15A NCAC 2Q .0523(c).

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

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

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

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

Excess Emissions

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

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

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

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

JJ. **General Emissions Testing and Reporting Requirements** [15A NCAC 2Q .0508(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, the Permittee shall perform such testing in accordance with the appropriate EPA reference method(s) as approved by the DAQ and follow the procedures outlined below. The Permittee must request **in writing** and receive approval from the DAQ for an alternate test method or procedure.

1. The Permittee shall submit a completed Protocol Submittal Form to the DAQ Regional Supervisor at least 45 days prior to the scheduled test date. A copy of the Protocol Submittal Form may be obtained from the Regional Supervisor.
2. The Permittee shall notify the Regional Supervisor of the specific test dates at least 15 days prior to testing in order to afford the DAQ the opportunity to have an observer on-site during the sampling program.
3. During all sampling periods, the Permittee shall operate the emission source(s) under maximum normal operating conditions or alternative operating conditions as deemed appropriate by the Regional Supervisor or his delegate.
4. The Permittee shall submit **two** copies of the test report to the DAQ. The test report shall contain at a minimum the following information:
  - a. a certification of the test results by sampling team leader and facility representative;
  - b. a summary of emissions results and text detailing the objectives of the testing program, the applicable state and federal regulations, and conclusions about the testing and compliance status of the emission source(s);
  - c. a detailed description of the tested emission source(s) and sampling location(s) process flow diagrams, engineering drawings, and sampling location schematics should be included as necessary;
  - d. all field, analytical, and calibration data necessary to verify that the testing was performed as specified in the applicable test methods;
  - e. example calculations for at least one test run using equations in the applicable test methods and all test results including intermediate parameter calculations; and
  - f. documentation of facility operating conditions during all testing periods and an explanation relating these operating conditions to maximum normal operation. If necessary, provide historical process data to verify maximum normal operation.
5. The testing requirement(s) shall be considered satisfied only upon written approval of the test results by the DAQ.
6. The DAQ will review emission test results with respect exclusively to the specified testing objectives as proposed by the Permittee and approved by the DAQ. The use of the test results beyond the stated objectives remains subject to the approval of the DAQ.

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

1. A permit shall be reopened and revised under the following circumstances:
  - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
  - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
  - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
  - d. the Director or EPA determines that the permit must be revised or revoked to 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).

ATTACHMENT  
**List of Acronyms**

<b>AOS</b>	Alternate Operating Scenario
<b>BACT</b>	Best Available Control Technology
<b>Btu</b>	British thermal unit
<b>CEM</b>	Continuous Emission Monitor
<b>CFR</b>	Code of Federal Regulations
<b>CAA</b>	Clean Air Act
<b>DAQ</b>	Division of Air Quality
<b>DENR</b>	Department of Environment and Natural Resources
<b>EMC</b>	Environmental Management Commission
<b>EPA</b>	Environmental Protection Agency
<b>FR</b>	Federal Register
<b>GACT</b>	Generally Available Control Technology
<b>HAP</b>	Hazardous Air Pollutant
<b>MACT</b>	Maximum Achievable Control Technology
<b>NCAC</b>	North Carolina Administrative Code
<b>NCGS</b>	North Carolina General Statutes
<b>NESHAPS</b>	National Emission Standards for Hazardous Air Pollutants
<b>NO<sub>x</sub></b>	Nitrogen Oxides
<b>NSPS</b>	New Source Performance Standard
<b>OAH</b>	Office of Administrative Hearings
<b>PM</b>	Particulate Matter
<b>PM<sub>10</sub></b>	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
<b>POS</b>	Primary Operating Scenario
<b>PSD</b>	Prevention of Significant Deterioration
<b>SIC</b>	Standard Industrial Classification
<b>SIP</b>	State Implementation Plan
<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>tpy</b>	Tons Per Year
<b>VOC</b>	Volatile Organic Compound

## PART II

The Permittee is hereby authorized to construct air emission source(s) and associated air pollution control device(s) and appurtenances listed in Section 1, Part II of this permit, in accordance with the completed Air Quality Permit Application 2400093.06A received March 16, 2006, including all plans, specifications, previous applications, and other supporting data, all of which are filed with the DAQ and are incorporated in Part II of this Air Quality Permit.

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

**Table 1:** The following table contains a summary of all authorized emission sources and associated air pollution control devices and appurtenances **associated with Air Quality Permit Application No. 2400093.05C:**

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-002-05a <sup>1</sup> MACT FFFF, bpv	6,000 gallon reactor	CD-002-05a	Condenser

1. This emission source (ID No. **ES-002-05a**) is listed as a minor modification per 15A NCAC 2Q .0515. The compliance certification as described in General Condition P is required. Unless otherwise notified by NC DAQ, the affected Part I terms of this permit (excluding the permit shield as described General Condition R) for this source shall become final on **November 20, 2005**. Until this date, the affected Part I permit terms herein reflect the proposed operating language that the Permittee shall operate this source under pursuant to 15A NCAC 2Q .0515(f).

**Table 2:** The following table contains a summary of all authorized emission sources and associated air pollution control devices and appurtenances **associated with Air Quality Permit Application No. 2400093.07A:**

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-001-07	Hexamine bagging operation	CD-001-02e <sup>2</sup>	Cartridge filter; 3,040 square feet of filter area

2. This control device (ID No. **CD-001-02e**) is listed as a minor modification per 15A NCAC 2Q .0515. The compliance certification as described in General Condition P is required. Unless otherwise notified by NC DAQ, the affected Part I terms of this permit (excluding the permit shield as described General Condition R) for this source shall become final on **July 21, 2007**. Until this date, the affected Part I permit terms herein reflect the proposed operating language that the Permittee shall operate this source under pursuant to 15A NCAC 2Q .0515(f).

**Table 3:** The following table contains a summary of all authorized emission sources and associated air pollution control devices and appurtenances **associated with Air Quality Permit Application No. 2400093.08A:**

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-002-05ww1 <sup>3</sup> MACT FFFF, ww1	Wastewater Storage Tank	NA	NA
ES-002-05ww2 <sup>3</sup> MACT FFFF, ww1	Wastewater Steam Stripper	CD-002-01a	Electrically-heated catalytic oxidizer
ES-001-01T <sup>3</sup>	Temporary, back-up boiler; No. 2/No. 5/No. 6 fuel oil-fired (maximum heat input less than 30 million Btu per hour)	NA	NA

3. These emission sources (ID Nos. **ES-002-05ww1**, **ES-002-05ww2**, and **ES-001-01T**) are listed as a 15A NCAC 2Q .0501(c)(2) modification. The permit shield described in General Condition R does not apply and compliance certification as described in General Condition P is not required.

## **SECTION 2: SPECIFIC LIMITATIONS AND CONDITIONS**

The air emission source(s) and associated air pollution control device(s) and appurtenances listed in Section 1 are subject to the following specific terms, conditions, and limitations, including the monitoring, recordkeeping, and reporting requirements as specified herein:

1. Any air emission sources or control devices authorized to construct in Section 1 must be constructed and maintained in accordance with the provisions contained herein and operated in accordance with provisions contained in Part I of this permit. The Permittee shall comply with applicable Environmental Management Commission Regulations.

### **“PART II” APPLICATION REQUIREMENT**

2. The Permittee shall file a Title V Air Quality Permit Application for the air emission sources (ID Nos. ES-002-05ww1, ES-002-05ww2, and ES-001-01T) listed in Section 1 on or before 12 months after commencing operation.

### **NOTIFICATION REQUIREMENT**

3. The Permittee shall submit a written notification to the Regional Supervisor with 15 days of initial start-up of **any** of the affected emission sources (**ID No. ES-002-05ww1, ES-002-05ww2, or ES-001-01T**).

## **SECTION 3: GENERAL CONDITIONS**

This section describes terms and conditions applicable to the construction of the air emission source(s) and associated air pollution control device(s) listed in Section 1 and State-only emission sources listed in Part I of the permit. Unless otherwise specified herein all references to the “permit” in this section apply only to Part II of the permit.

### **A. Operating Conditions**

All operating conditions for the air emission source(s) and associated air pollution control device(s) listed in Section 1 are under Part I of this permit.

### **B. General Provisions**

1. This permit is nontransferable by the Permittee. Future owners and operators must obtain a new Air Quality Permit from the DAQ.
2. This issuance of this permit in no way absolves the Permittee of liability for any potential civil penalties which may be assessed for violations of state law which have occurred prior to the issuance date of this permit.
3. A violation of any term or condition of Part II of this permit shall subject the Permittee to enforcement pursuant to NCGS 143-215.114A, 143-215.114B, and 143-215.114C, including assessment of civil and/or criminal penalties.

### **C. Submissions (reports, test data, monitoring data, notifications, and requests for renewal)**

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.

### **D. Part II Renewal Request**

The Permittee shall request renewal of the emission source(s) and associated air pollution control device(s) listed in Section 1 at the same time as specified in Part I, Section 3 - General Condition K of this permit.

### **E. Annual Fee Payment**

The Permittee shall pay all fees in accordance with 15A NCAC 2Q .0200 and in conjunction with Part I, Section 3 - General Condition W of this Air Quality Permit.

### **F. 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:

1. Changes in the information submitted in the application;
2. Changes that modify equipment or processes; or
3. 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.

G. **Termination, Modification, and Revocation of the Permit**

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; or
4. 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.

H. **Inspection and Entry**

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:

1. 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;
2. Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
3. 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
4. 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.

I. **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.