Part 70 Operating Permit Amendment

Permit Amendment No.: 2869-245-0003-V-04-3 Effective Date: DRAFT

Facility Name: **DSM Chemicals North America, Inc.**

Facility Address: 1 Columbia Nitrogen Road
Augusta, Georgia 30901 Richmond County

Mailing Address: P.O. Box 2451
Augusta, Georgia 30903

Parent/Holding Company: DSM Chemicals North America, Inc.

Facility AIRS Number: 04-13-245-0003

In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Georgia Rules for Air Quality Control, Chapter 391-3-1, adopted pursuant to and in effect under the Act, the Permittee described above is issued a construction and operating permit for:

Plant modifications to improve the plant's reliability which may increase the plant's production capacity.

This Permit Amendment is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Permit Amendment and Permit No. 2869-245-0003-V-04-0. Unless modified or revoked, this Permit Amendment expires upon issuance of the next Part 70 Permit for this source.

This Permit Amendment may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in Application No. 21476 dated September 28, 2012; any other applications upon which this Permit Amendment or Permit No. 2869-245-0003-V-04-3 are based; supporting data entered therein or attached thereto; or any subsequent submittal or supporting data; or for any alterations affecting the emissions from this source.

This Permit Amendment is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached **24** pages.

Director
Environmental Protection Division

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PART 1.0 FACILITY DESCRIPTION

1.3 Process Description of Modification

Plant modifications to improve the plant's reliability which may increase the plant's production capacity.

PART 3.0 REQUIREMENTS FOR EMISSION UNITS

Note: Except where an applicable requirement specifically states otherwise, the averaging times of any of the Emissions Limitations or Standards included in this permit are tied to or based on the run time(s) specified for the applicable reference test method(s) or procedures required for demonstrating compliance.

3.1.1 Additional Emission Units

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	**Description**	**Applicable Requirements/Standards**	**Corresponding Permit Conditions**	**ID No.**	**Description**
Sections 0, 20, and 30 – Process Boilers					
B030	H-5040 Hot Oil Furnace	40 CFR 52.21 for NOx and GHG 40 CFR 60 Subpart Dc 40 CFR 52.21 Avoidance for PM, PM10, and PM2.5 40 CFR 63 Subpart DDDDD 391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	3.3E.6, 3.3K.1, 3.3K.2, 3.3K.7, 3.3K.8, 3.3K.9, 3.3L.1, 3.3L2, 3.3L.3, 3.3L.4, 3.3J.10, 4.2K.2, 5.2K.2, 5.2L.1, 6.1K.1, 6.2K.9, 6.2K.10, 6.2K.11, 6.2L.1, 6.2L.2, 6.2L.3, 6.2L.4, 6.2L.5	None	None
Section 26 – Cyclohexanone Oxime Plant (N-002)					
G07Y	HPO IPL Polishing Column	40 CFR 52.21	3.3K.1, 3.3K.2, 6.2K.11	None	None
Section 36- Cyclohexanone Oxime Plant (N-003)					
R033	R3607 Ammonia Combustion Converter	40 CFR 52.21 for NOx and GHG	3.3K.1, 3.3K.2, 3.3K.3, 3.3K.4, 3.3K.5, 3.3K.6, 4.2K.1, 5.2K.1, 5.2K.3, 5.2K.4, 5.2K.5, 5.2K.6, 5.2K.7, 5.2K.8, 5.2K.9, 6.1K.1, 6.2K.3, 6.2K.4, 6.2K.5, 6.2K.6, 6.2K.7, 6.2K.8, 6.2K.11	P33	Non-Selective Catalytic Reduction
G18Y	HPO IPL Polishing Column	40 CFR 52.21	3.3K.1, 3.3K.2, 6.2K.11	None	None
APP					

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	**Description**	**Applicable Requirements/Standards**	**Corresponding Permit Conditions**	**ID No.**	**Description**
C316	Batch HV Blending Powder Bagdump	40 CFR 52.21 Avoidance for PM, PM10, and PM2.5 391-3-1-.02(2)(e) 391-3-1-.02(2)(b)	3.2A.14, 3.3K.1, 3.3K.2. 3.4J.9, 4.2A.1, 5.2A.3, 5.2A.4, 6.1A.7, 6.2K.11	PC16	Bagdump Dust Collector

* Generally applicable requirements contained in this permit may also apply to emission units listed above. The lists of applicable requirements/standards and corresponding permit conditions are intended as a compliance tool and may not be definitive.

Additional Permit Condition Numbering Grouping

- A = Section 3.2 and related requirements
- B=40 CFR 60 Subparts III, NNN, and RRR requirements
- C=40 CFR 63 Subpart FFFF and 40 CFR 65 Subpart F requirements
- D=40 CFR 63 Subpart EEE requirements
- E=40 CFR 60 Subparts D, Db, and Dc requirements
- F=40 CFR 61 Subpart FF requirements
- G=40 CFR 60 Subparts Kb and PP requirements
- H=40 CFR 60 Subpart VV requirements
- I=40 CFR 61 Subpart V requirements
- J=Section 3.4, Georgia Rules, and related requirements

NEW PERMIT CONDITION NUMBERING GROUPING

- K = PSD Requirements per Application No. 21476 (September 2012)
- L = 40 CFR 63 Subpart DDDDD requirements

3.2 Equipment Emission Caps and Operating Limits

NEW CONDITIONS

3.2A.14 The Permittee shall not discharge or cause the discharge into the atmosphere from each of the following: the Batch Blending Bagdump (emission unit ID No. C316), the following emissions during all periods of operation of each of these emission units: [40 CFR 52.21 Avoidance for PM, PM10, and PM2.5; Rule 391-3-1-.02(2)(e)(subsumed) for PM emissions]

a. Particulate Matter emissions in amounts equal to or in excess of 0.01 grains per dry standard cubic feet (gr/dscf).

b. Particulate Matter with aerodynamic diameter less than 10 microns (PM10) in amounts equal to or in excess of 0.01 gr/dscf.

c. Particulate Matter with aerodynamic diameter less than 2.5 microns (PM2.5) in amounts equal to or in excess of 0.01 gr/dscf.

3.3 Equipment Federal Rule Standards

NEW CONDITIONS

40 CFR 60 Subpart Dc – B030 Hot Oil Furnace

3.3E.6 The Permittee shall comply with all application provisions of the New Source Performance Standards (NSPS) as found in 40 CFR 60 Subpart A "General Provision" and 40 CFR 60 Subpart Dc "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units," for the operation of hot oil furnace with emission unit ID No. B030.
[40 CFR 60 Subparts A and Dc]

Prevention of Significant Deterioration for Application No. 21476

3.3K.1 The Permittee shall construct and operate the source or modification **as defined in Application No. 21476** that is subject to Georgia Rule 391-3-1-.02(7) in accordance with the application submitted pursuant to that rule. If the Permittee constructs or operates a source or modification not in accordance with the application submitted pursuant to that rule or with the terms of any approval to construct, the Permittee shall be subject to appropriate enforcement action.
[40 CFR 52.21(r)(1)]

3.3K.2 Approval to construct **source or modification as defined in Application No. 21476** shall become invalid if construction is not commenced within 18 months after receipt of such approval, if construction is discontinued for a period of 18 months or more, or if construction is not compliance within a reasonable time. The Director may extend the 18-month period upon a satisfactory showing that an extension is justified. This provision does not apply to the time period between construction of the approved phases of a phased construction project; each phase must commence construction within 18 months of the projected and approved commencement date.
[40 CFR 52.21(r)(2)]

Ammonia Combustor (R033)

3.3K.3 The Permittee shall install and operate, as Best Available Control Technology (BACT), for NOx on ammonia combustor with emission unit ID No. R033 a non-selective catalytic reduction system (with air pollution control device ID No. P33) during all periods of operation in accordance with manufacturer's instructions.
[40 CFR 52.21]

3.3K.4 The Permittee shall install and operate, as Best Available Control Technology (BACT), for N_2O on ammonia combustor with emission unit ID No. R033 a non-selective catalytic reduction system (with air pollution control device ID No. P33) during all periods of operation in accordance with manufacturer's instructions.
[40 CFR 52.21]

3.3K.5 The Permittee shall not discharge, or cause to be discharged, into the atmosphere, from the ammonia combustor with emission unit ID No. R033:
[40 CFR 52.21(j)]

a. Nitrogen Oxides (NOx) emissions, including emissions occurring during startup, shutdown, and malfunction, in excess of 20 tons during any twelve consecutive months.

b. Greenhouse gas (GHG, expressed as CO_{2e}) emissions, including emissions occurring during startup, shutdown, and malfunction, in excess of 22,425 tons during any twelve consecutive months.

3.3K.6 The Permittee shall not discharge, or cause to be discharged, into the atmosphere from the ammonia combustor with emission unit ID No. R033, excluding periods of startup and shutdown, any gases which contain nitrogen oxides (NOx) in excess of 150 ppmvd, correction to 3% oxygen, on a 3-hour basis.
[40 CFR 52.21(j)]

Hot Oil Furnace (B030)

3.3K.7 The Permittee shall only fire natural gas in hot oil furnace with emission unit ID No. B030 during all periods of operation.
[40 CFR 52.21 for NOx; 40 CFR 52.21 Avoidance for PM, PM10, PM2.5; 391-3-1-.02(2)(g)(subsumed) and 391-3-1-.02(2)(d)(subsumed) for PM emissions]

3.3K.8 The Permittee shall not discharge, or cause to be discharged, into the atmosphere, from the hot oil furnace with emission unit ID No. B030, during all periods of operation, greenhouse gas (GHG, expressed as CO_{2e}) emissions in excess of 6,134 tons during any twelve consecutive months.
[40 CFR 52.21(j)]

3.3K.9 The Permittee shall not discharge, or cause the discharge, into the atmosphere from the hot oil furnace with emission unit ID No. B030, any gases which contain NOx in excess of 0.03 lb/MMBtu, on a 3-hour basis, including periods of startup and shutdown.
[40 CFR 52.21(j)]

Boilers

3.3K.10 The Permittee shall not discharge or cause the discharge into the atmosphere nitrogen dioxide (NO_2) emissions in excess of 145.0 pounds per hour from boilers with emission unit ID Nos. B005, B006, B014, and B022, on a combined basis. This emission rate is on a 1-hour basis. This Permit Condition becomes effective twelve months from the date of permit issuance.
[NO_2 PSD Modeling Avoidance Limit]

40 CFR 63 Subpart DDDDD

3.3L.1 The Permittee shall comply with all applicable provisions of 40 CFR 63 Subpart DDDDD – *National Emission Standard for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Furnaces* as the NESHAP applies to hot oil furnace with emission unit ID No. B030 upon startup of said equipment.
[40 CFR 63 Subpart DDDDD – 40 CFR 63.7495(a)]

3.3L.2 The Permittee shall comply with all applicable provisions of 40 CFR 63 Subpart DDDDD – *National Emission Standards for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Furnaces* as the NESHAP applies to boilers with emission unit ID Nos. B014 and B029, hot oil furnaces with emission unit ID Nos. B029 and B31B, steam superheater with emission unit ID No. B31A on or before January 31, 2016. Boilers with emission unit ID Nos. B005 and B006 are not subject to Subpart DDDD in accordance with 40 CFR 63.7491(m).
[40 CFR 63 Subpart DDDDD – 40 CFR 63.7495(b)]

Hot Oil Furnace B030

3.3L.3 The Permittee must meet the applicable requirements of Table 3 of 40 CFR 63 Subpart DDDDD as the NESHAP applies to hot oil furnace with emission unit ID No. B030.
[40 CFR 63.7500(a)]

3.3L.4 The Permittee must demonstrate initial compliance with the applicable work practice standards in Table 3 of 40 CFR 63 Subpart DDDDD for hot oil furnace with emission unit ID No. B030 within the applicable annual schedule as specified in 40 CFR 63.7540(a) following the initial compliance date specified in 40 CFR 63.7495(a). Thereafter, the Permittee is required to complete the applicable annual tune-up as specified in 40 CFR 63.7540(a).
[40 CFR 63.7510(g)]

3.4 Equipment SIP Rule Standards

NEW CONDITIONS

Georgia Air Quality Rules

3.4J.9 The Permittee shall not discharge or cause the discharge into the atmosphere from the following equipment any gases that exhaust opacity of forty (40) percent or greater:
[391-3-1-.02(2)(b)]

a. Batch HV Blending Powder Bagdump (Source Group: C316)

3.4J.10 The Permittee shall not cause, let, suffer, permit, or allow the emission from hot oil furnace with emission unit ID No. B030), visible emissions the opacity of which is equal to or greater than twenty (20) percent except for one six minute period per hour of not more than twenty-seven (27) percent opacity.
[391-3-1-.02(2)(d)3.]

PART 4.0 REQUIREMENTS FOR TESTING

4.1 General Testing Requirements

MODIFIED CONDITION

4.1.3 Performance and compliance tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division's Procedures for Testing and Monitoring Sources of Air Pollutants. The methods for the determination of compliance with emission limits listed under Sections 3.2, 3.3, 3.4 and 3.5 which pertain to the emission units listed in Section 3.1 are as follows:

o. Method 202 in conjunction with Method 5 for the determination of Total Particulate Matter (Filterable and Condensable) from Stationary Sources. Method 202 should only be used if required by applicable regulation.
[Vault NS-023-TC, 03/10]

y. Methods 201A, in conjunction with Method 202, shall be used to determine concentrations of PM10 and PM2.5 to demonstrate compliance with emission limits in Condition Nos. 3.2A.14.b, 3.2A14.c, 3.2A16.b, 3.2A16.c

z. Method 7 or 7E shall be used to determine the nitrogen oxides concentration of NOx to demonstrate compliance with emission limits in Condition Nos. 3.3K.6 and 3.3K.9.

aa. Method 320 shall be used to determine GHG concentrations.

Minor changes in methodology may be specified or approved by the Director or his designee when necessitated by process variables, changes in facility design, or improvement or corrections that, in his opinion, render those methods or procedures, or portions thereof, more reliable.
[391-3-1-.02(3)(a)]

NEW CONDITION

4.1.6 The Permittee shall submit performance test reports to the US EPA's WebFIRE database in accordance with any applicable NSPS or NESHAP standards (40 CFR 60 or 40 CFR 63) that contain Electronic Data Reporting Requirements.
[391-3-1-.02)(8)(a) and 391-3-1-.02(9)(a)]

4.2 Specific Testing Requirements

NEW CONDITIONS

4.2A.1 Within 60 days after achieving the maximum production rate at which emission unit ID No. 316 will be operated, but not later than 180 days after the initial startup of said emission unit, the Permittee shall conduct the following performance tests and furnish to the Division a written report of the results of each performance test:

a. Performance test for particulate matter (PM) emissions to verify compliance with Condition Nos. 3.2A14.a.

b. Performance test for particulate matter less than 10 microns in diameter (PM10) to verify compliance with Condition Nos. 3.2A14.b.

c. Performance test for particulate matter less than 2.5 microns in diameter (PM2.5) to verify compliance with Condition Nos. 3.2A14.c.

d. Performance test for visible emissions to verify compliance with Condition 3.4J.9.

NEW CONDITIONS

4.2K.1 Within 60 days after achieving the maximum production rate at which the ammonia combustor (emission unit ID No. R033) will be operated, but not later than 180 days after the initial startup of said unit, the Permittee shall conduct the following performance tests on the ammonia combustor (emission unit ID No. R033) and furnish to the Division a written report of the results of each performance test:

a. Performance test for NOx emissions to verify compliance with Condition 3.3K.6. Tested emission rate will be expressed in ppmvd at 3% oxygen.

4.2K.2 Within 60 days after achieving the maximum production rate at which the hot oil furnace (emission unit ID No. B030) will be operated, but not later than 180 days after the initial startup of said unit, the Permittee shall conduct the following performance tests on the hot oil furnace (emission unit ID No. B030) and furnish to the Division a written report of the results of each performance test:

a. Performance test for NOx emissions to verify compliance with Condition 3.3K.9.

4.2K.3 Within fourteen months of the date of issuance of the final permit, the Permittee shall conduct the following performance tests on stack ID No. S014 and furnish to the Division a written report of the results of each performance test:

a. The performance tests shall be conducted with boilers with emission unit ID Nos. B005, B006, B014, and B022 operating at the increased capacity as defined in Application No. 21476, on a combined basis.

b. Performance test for NO_2 emissions to verify compliance with Condition No. 3.3K.10. NO_2 emissions shall be computed as 80 percent of NOx emissions. The maximum one-hour average tested emission rate shall be compared to Condition No. 3.3K.10.

PART 5.0 REQUIREMENTS FOR MONITORING (Related to Data Collection)

5.2 Specific Monitoring Requirements

NEW CONDITIONS

5.2A.3 The Permittee shall install, calibrate, maintain, and operate monitoring devices for the measurement of the indicated parameters on the following equipment. Data shall be recorded at the frequency specified below. Where such performance specification(s) exist, each system shall meet the applicable performance specification(s) of the Division's monitoring requirements.

a. Gas phase pressure drop across each baghouse with ID No. PC16. Data shall be recorded in the process log at least once per eight hours of operation of the applicable portion of the plant.
[40 CFR 52.21 Avoidance for PM, PM10, and PM2.5, 40 CFR 70.6(a)(3)(i), and 391-3-1-.02(6)(b)1.]
[40 CFR 52.21 Avoidance, 40 CFR 70.6(a)(3)(i), and 391-3-1-.02(6)(b)1.]

5.2A.4 The Permittee shall conduct a visual inspection including, at a minimum, the following maintenance checks for each day or portion of each day of operation of the baghouses with ID No. PC16:
[40 CFR 52.21 Avoidance, 40 CFR 70.6(a)(3)(i), and 391-3-1-.02(6)(b)1.]

a. Check system for low pressure, leaks, proper lubrication and proper operation of timer and valves.

b. Check hopper for bridging and plugging. If hopper is equipped with a screw conveyor, check for proper operation to ensure dust removal.

c. Verify, in accordance with the procedures described below, that no visible emissions are occurring at the discharge point to the atmosphere.

The person performing the verification shall stand at a distance of at least 15 feet, or that distance which is sufficient to provide a clear view of the plume against a contrasting background with the sun in the 140^{o} sector at his/her back. Consistent with this requirement, the verification shall be made from a position such that the line of vision is approximately perpendicular to the plume direction. Only one plume shall be in the line of sight at any time when multiple stacks are in proximity to each other.

NEW CONDITIONS

5.2K.1 The Permittee shall install, calibrate, maintain, and operate a system to continuously monitor and record the indicated pollutants on the following equipment. Each system shall meet the applicable performance specification(s) of the Division's monitoring requirements.

a. A Continuous Emissions Monitoring System (CEMS) for measuring NOx concentration and diluent concentration (either oxygen or carbon dioxide) discharge to the atmosphere from the ammonia combustor (Emission Unit ID No. R033). The one-hour average nitrogen oxides emissions rates shall be recorded in pound per hour and ppm corrected to 3 percent oxygen on a dry basis. The diluent concentration shall be expressed in percent. Each NOx diluent CEMS must be installed and certified according to Performance Specification 2 in appendix B of **The Procedures for Testing and Monitoring Sources of Air Pollutants**, except the 7-day calibration drift shall be based on unit operating days and not calendar days.
[40 CFR 52.21, 40 CFR 70.6(a)(3)(i), and 391-3-1-.02(6)(b)1.]

b. A Continuous Emissions Monitoring System (CEMS) for measuring N_2O concentration and diluent concentration (either oxygen or carbon dioxide) discharge to the atmosphere from the ammonia combustor (Emission Unit ID No. R033). The one-hour average N_2O emissions rates shall be recorded in pound per hour and ppm corrected to 3 percent oxygen on a dry basis. The diluent concentration shall be expressed in percent. Each N_2O diluent CEMS must be installed and certified according to Performance Specification 15 in appendix B of **The Procedures for Testing and Monitoring Sources of Air Pollutants**, except the 7-day calibration drift shall be based on unit operating days and not calendar days.
[40 CFR 52.21, 40 CFR 70.6(a)(3)(i), and 391-3-1-.02(6)(b)1.]

c. A Continuous Emissions Monitoring System (CEMS) for measuring NO_2 concentration and diluent concentration (either oxygen or carbon dioxide) discharge to the atmosphere from the boiler plant with stack ID No. S014. For purposes of this condition, the boiler plant includes boilers with emission unit ID Nos. B005, B006, B014, and B022. The one-hour average nitrogen oxides emissions rates shall be recorded in pound per hour. The diluent concentration shall be expressed in percent. Each NO_2 diluent CEMS must be installed and certified according to Performance Specification 2 in appendix B of **The Procedures for Testing and Monitoring Sources of Air Pollutants**, except the 7-day calibration drift shall be based on unit operating days and not calendar days. This Permit Condition becomes effective twelve months from the date of final permit issuance.
[NO_2 Modeling Limit, 40 CFR 70.6(a)(3)(i), and 391-3-1-.02(6)(b)1.]

5.2K.2 The Permittee shall install, calibrate, maintain, and operate monitoring devices for the measurement of the indicated parameters on the following equipment. Data shall be recorded at the frequency specified below. Where such performance specification(s) exist, each system shall meet the applicable performance specification(s) of the Division's monitoring requirements.

a. The quantity of natural gas, in cubic feet, burned in the oil furnace with emission unit ID No. B030. Data shall be recorded monthly.
[40 CFR 52.21, 40 CFR 70.6(a)(3)(i), and 391-3-1-.02(6)(b)1.]

5.2K.3 The Permittee shall, using the procedures of Appendix F, Procedure 1 (Quality Assurance Requirements for Gas Continuous Emissions Monitoring Systems Used for Compliance Determination) contained in the Division's **Procedures for Testing and Monitoring Sources of Air Pollutants**, to assess the quality and assurance of the data required by Condition No. 5.2K.1. The Permittee shall maintain records specifying the results of the daily CEMS drift tests and quarterly accuracy assessments under Appendix F, Procedure 1. In addition, the Permittee shall maintain records which identify the Out-of-Control Periods (as defined in Appendix F, Procedure 1) for the CEMS required by Condition No. 5.2K.1 during each calendar quarter. This Permit Condition becomes effective twelve months from the date of final permit issuance for Condition No. 5.2K1.c.
[40 CFR 52.21, 40 CFR 70.6(a)(3)(i), and 391-3-1-.02(6)(b)1. NO_2 Modeling Limit for Boiler Plant with Stack ID No. S014]

5.2K.4 The Permittee shall obtain NOx emissions data for at least 75 percent of the operating hours for the ammonia combustor (Emission Unit ID No. R033) during each month that the ammonia combustor is operated. If this minimum data required is not met using either CEMS required by Condition No. 5.2K.1, the Permittee may supplement the emissions data with data obtained by conducting sampling using the methods prescribed in Condition 4.1.3. The Permittee shall maintain records, which identify periods during each calendar month for which NOx data have not been obtained for 75 percent of the ammonia combustor operating hours during the month, includes reasons for not obtaining sufficient data and a description of corrective actions taken.
[40 CFR 52.21, 40 CFR 70.6(a)(3)(i), and 391-3-1-.02(6)(b)1.]

5.2K.5 The Permittee shall obtain N_2O emissions data for at least 75 percent of the operating hours for the ammonia combustor (Emission Unit ID No. R033) during each month that the ammonia combustor is operated. If this minimum data required is not met using either CEMS required by Condition No. 5.2K.1, the Permittee may supplement the emissions data with data obtained by conducting sampling using the methods prescribed in Condition 4.1.3. The Permittee shall maintain records, which identify periods during each calendar month for which N_2O data have not been obtained for 75 percent of the ammonia combustor operating hours during the month, includes reasons for not obtaining sufficient data and a description of corrective actions taken.
[40 CFR 52.21, 40 CFR 70.6(a)(3)(i), and 391-3-1-.02(6)(b)1.]

5.2K.6 The Permittee shall obtain NO_2 emissions data for at least 75 percent of the operating hours for boiler plant stack ID No. S014 during each month that any of the boilers with emission unit ID No. B005, B006, B014, and B022 are operated. If this minimum data required is not met using either CEMS required by Condition No. 5.2K.1, the Permittee may supplement the emissions data with data obtained by conducting sampling using the methods prescribed in Condition 4.1.3. The Permittee shall maintain records, which identify periods during each calendar month for which NO_2 data have not been obtained for 75 percent of the ammonia combustor operating hours during the month, includes reasons for not obtaining sufficient data and a description of corrective actions taken. This Permit Condition becomes effective twelve months from the date of final permit issuance. [NO_2 Modeling Limit, 40 CFR 70.6(a)(3)(i), and 391-3-1-.02(6)(b)1.]

5.2K.7 The following pollutant specific emission unit(s) (PSEU) is/are subject to the Compliance Assurance Monitoring (CAM) Rule in 40 CFR 64.

Emission Unit	**Pollutant**
Ammonia Combustor with emission unit ID No. R033	NOx
Ammonia Combustor with emission unit ID No. R033	GHG (expressed as CO_{2e})

Permit conditions in this permit for the PSEU(s) listed above with the regulatory citation 40 CFR 70.6(a)(3)(i) are included for the purpose of complying with 40 CFR 64. In addition, the Permittee shall meet the requirements, as applicable, of 40 CFR 64.7, 64.8, and 64.9. [40 CFR 64]

5.2K.8 The Permittee shall comply with the performance criteria listed in the table below for the NOx emissions from the ammonia combustor with emission unit ID No. R033. [40 CFR 64.6(c)(1)(iii)]

Performance Criteria [64.4(a)(3)]	**Indicator No. 1 CEMS NOx Value**
A. Data Representativeness [64.3(b)(1)]	NOx and O_2 (or CO_2) are monitored with a CEMS that is subject to Performance Specification 2 in appendix B of the **Procedures for Testing and Monitoring Sources of Air Pollutants**.
B. Verification of Operational Status (new/modified monitoring equipment only) [64.3(b)(2)	Meet requirements of Performance Specification 2.
C. QA/QC Practices and Criteria [64.3(b)(3)]	QA/QC procedures include calibration, maintenance following manufacturer's specifications and specific to the plant.
D. Monitoring Frequency [64.3(b)(4)]	Measurements are taken continuously except during periods of calibration and maintenance.

Performance Criteria [64.4(a)(3)]	**Indicator No. 1 CEMS NOx Value**
E. Data Collection Procedures [64.3(b)(4)]	The data acquisitions systems (DAS) retains all hourly average NOx data.
F. Averaging Period [64.3(b)(4)]	Per minute data is used to calculate 1-hour averages which is used to calculate a 3-hour rolling average.

5.2K.9 The Permittee shall comply with the performance criteria listed in the table below for the N_2O (and CO_2e) emissions from the ammonia combustor with emission unit ID No. R033. [40 CFR 64.6(c)(1)(iii)]

Performance Criteria [64.4(a)(3)]	**Indicator No. 1 CEMS N_2O Value**
A. Data Representativeness [64.3(b)(1)]	N_2O and O_2 (or CO_2) are monitored with a CEMS that is subject to Performance Specification 15 in appendix B of the **Procedures for Testing and Monitoring Sources of Air Pollutants**.
B. Verification of Operational Status (new/modified monitoring equipment only) [64.3(b)(2)	Meet requirements of Performance Specification 15.
C. QA/QC Practices and Criteria [64.3(b)(3)]	QA/QC procedures include calibration, maintenance following manufacturer's specifications and specific to the plant.
D. Monitoring Frequency [64.3(b)(4)]	Measurements are taken continuously except during periods of calibration and maintenance.
E. Data Collection Procedures [64.3(b)(4)]	The data acquisitions systems (DAS) retains all hourly average N_2O data and CO_2e. data
F. Averaging Period [64.3(b)(4)]	Per minute data is used to calculate 1-hour averages.

40 CFR 63 Subpart DDDDD – Major Source: Boiler MACT

5.2L.1 The Permittee shall conduct the following on hot oil furnace with emission unit ID No. B030:

a. The Permittee shall conduct an annual tune-up of the hot oil furnace with emission unit ID No. B030 in accordance with 40 CFR 63.7540(a)(10), as applicable. [40 CFR 63.7540(a)(10)

b. If hot oil furnace with emission unit ID No. B030 is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [40 CFR 63.7540(a)(13)

c. The first annual tune-up must be no later than 13 months after the initial startup of the hot oil furnace with emission unit ID No. B030.
[40 CFR 63.7515(a)]

c. The frequency of each annual tune-up must be no more than 13 months after the previous tune-up.
[40 CFR 63.7515(a)]

PART 6.0 OTHER RECORD KEEPING AND REPORTING REQUIREMENTS

6.1 General Record Keeping and Reporting Requirements

MODIFIED CONDITION

6.1A.7 For the purpose of reporting excess emissions, exceedances or excursions in the report required in Condition 6.1.4, the following excess emissions, exceedances, and excursions shall be reported:

a. Excess emissions: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping which is specifically defined, or stated to be, excess emissions by an applicable requirement)

No revisions to existing condition.

b. Exceedances: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) do not meet the applicable emission limitation or standard consistent with the averaging period specified for averaging the results of the monitoring)
[40 CFR 52.21 Avoidance for PM, PM10, and PM2.5; Rule 391-3-1-.02(2)(e)(subsumed)]

No revision to existing condition.

c. Excursions: (means for the purpose of this Condition and Condition 6.1.4, any departure from an indicator range or value established for monitoring consistent with any averaging period specified for averaging the results of the monitoring)
[40 CFR 52.21 Avoidance for PM, PM10, and PM2.5; Rule 391-3-1-.02(2)(e)(subsumed)]

v. Baghouses (Source Code PC16):

(A) Any 2 consecutive readings of the pressure drop of any baghouse noted above that is lower than 0.5 inches water column

(B) Any visible emissions as determined by the checks required in Condition 5.2A.4.

(C) Any failure to check for leaks as required by Condition 5.2A.4

d. In addition to the excess emissions, exceedances and excursions specified above, the following should also be included with the report required in Condition 6.1.4:

None

NEW CONDITIONS
Prevention of Significant Deterioration for Application No. 21476

6.1K.1 For the purpose of reporting excess emissions, exceedances or excursions in the report required in Condition 6.1.4, the following excess emissions, exceedances, and excursions shall be reported:

a. Excess emissions: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping which is specifically defined, or stated to be, excess emissions by an applicable requirement)

i. None under Prevention of Significant Deterioration.

b. Exceedances: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) do not meet the applicable emission limitation or standard consistent with the averaging period specified for averaging the results of the monitoring)
[40 CFR 52.21, 40 CFR 70.6(a)(3)(i) and 391-3-1-.02(6)(b)1. NO_2 Modeling Limit for Boiler Plant with Stack ID No. S014]

i. Any three-hour rolling average NOx emission rate, determined in accordance with Condition No. 5.2K.1a, which exceeds 150 ppm at 3% oxygen for ammonia combustor with emission unit ID No. R033. For purposes of this Permit, this condition excludes periods of startup and shutdown and each clock hour begins a new one-hour average.

ii. Any twelve consecutive month total NOx emissions (tons) from ammonia combustor with emission unit ID No. R033 which exceeds 20 tons during all periods of operation.

iii. Any twelve consecutive month total GHG emissions (expressed as CO_2e) (tons) from ammonia combustor with emission unit ID No. R033 which exceeds, 22,425 tons.

iv. Any twelve consecutive month total GHG emissions (expressed as CO_2e) (tons) from the hot oil furnace with emission unit ID No. B030, which exceeds 6,134 tons during all periods of operation.

v. Any one-hour rolling average NO_2 emission rate, determined in accordance with Condition No. 5.2K1c, which exceeds 145 pounds per hour for the boiler plant stack ID No. S014. For purposes of this condition, the boiler plant consists of boilers with emission unit ID Nos. B005, B006, B014, and B022. This Permit Condition becomes effective twelve months from the date of final permit issuance.

c. Excursions: (means for the purpose of this Condition and Condition 6.1.4, any departure from an indicator range or value established for monitoring consistent with any averaging period specified for averaging the results of the monitoring)
[40 CFR 70.6(a)(3)(i) and Rule 391-3-1-.02(2)(e)(subsumed)]

None.

d. In addition to the excess emissions, exceedances and excursions specified above, the following should also be included with the report required in Condition 6.1.4:

i. The number of startups and shutdowns of ammonia combustor with emission unit ID No. R033 each month of the reporting period.

ii. The number of startups and shutdowns of ammonia combustor with emission unit ID No. R033 for each rolling twelve month period.

iii. Notification sent to the Program Manager of the Stationary Source Permitting Program of the number of startups and shutdowns of ammonia combustor with emission unit ID No. R033 for each rolling twelve month period when the number equals or exceeds ten (10).

6.2 Specific Record Keeping and Reporting Requirements

Record Keeping Requirements
NEW CONDITIONS
Prevention of Significant Deterioration for Application No. 21476

6.2K.1 The Permittee shall retain the following fuel usage records based on monitoring required by Condition 5.2K.2.c. These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.
[40 CFR 52.21, 40 CFR 70.6(a)(3)(i), 391-3-1-.02(6)(b)1.]

a. Monthly natural gas usage in emission unit ID No. B030.

b. The twelve consecutive month total natural gas usage in emission unit ID No. B030. A twelve consecutive month total shall be the total for a month in the reporting period plus the totals for the previous eleven consecutive months.

Verification of Compliance with the NOx Emission Limits-Ammonia Combustor

6.2K.3 The Permittee shall determine and record the mass emission rate (lb/hr) of NOx from the ammonia combustor with emission unit ID No. R033) for each hour or portion of each hour of operation. The hourly mass emission rate shall be calculated in accordance with applicable procedures. These records (including calculations) shall be maintained in a form suitable for inspection or submittal.
[40 CFR 52.21, 40 CFR 70.6(a)(3)(i), 391-3-1-.02(2)(6)(b)1]

6.2K.4 The Permittee shall use the records required by Condition 6.2K.3 to determine and record the monthly mass emission rate in tons per month of NOx from ammonia combustor with emission unit ID No. R033. These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.
[40 CFR 52.21, 40 CFR 70.6(a)(3)(i), 391-3-1-.02(2)(6)(b)1]

6.2K.5 The Permittee shall use the records required by Condition 6.2K4 to determine and record the twelve consecutive month total of NOx (in tons) from ammonia combustor with emission unit ID No. R033. A twelve consecutive month total shall be the total for a month in the reporting period plus the totals for the previous eleven consecutive months. These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.
[40 CFR 52.21, 40 CFR 70.6(a)(3)(i), 391-3-1-.02(2)(6)(b)1]

Verification of Compliance with the GHG Emission Limits – Ammonia Combustor

6.2K.6 The Permittee shall determine and record the mass emission rate (lb/hr) of N_2O from the ammonia combustor with emission unit ID No. R033) for each hour or portion of each hour of operation. The hourly mass emission rate shall be calculated in accordance with applicable procedures. The hourly mass emission rate shall be converted to CO_2e basis. These records (including calculations) shall be maintained in a form suitable for inspection or submittal.
[40 CFR 52.21, 40 CFR 70.6(a)(3)(i), 391-3-1-.02(2)(6)(b)1]

6.2K.7 The Permittee shall use the records required by Condition 6.2K.6 to determine and record the monthly mass emission rate in tons per month of CO_2e from ammonia combustor with emission unit ID No. R033. These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.
[40 CFR 52.21, 40 CFR 70.6(a)(3)(i), 391-3-1-.02(2)(6)(b)1]

6.2K.8 The Permittee shall use the records required by Condition 6.2K.7 to determine and record the twelve consecutive month total of CO_2e (in tons) from ammonia combustor with emission unit ID No. R033. A twelve consecutive month total shall be the total for a month in the reporting period plus the totals for the previous eleven consecutive months. These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.
[40 CFR 52.21, 40 CFR 70.6(a)(3)(i), 391-3-1-.02(2)(6)(b)1]

Verification of Compliance with the GHG Emission Limits – Hot Oil Furnace

6.2K.9 The Permittee shall use the records required by Condition 6.2K.1.a to determine and record the monthly total greenhouse gas emissions (expressed as CO_2e), in tons, from the hot oil furnace with emission unit ID No. B030 during all periods of operation. The Permittee shall use the applicable greenhouse gas emission factors and global warming potentials used in Application No. 21476. These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.
[40 CFR 52.21, 40 CFR 70.6(a)(3)(i), 391-3-1-.02(2)(6)(b)1.]

6.2K.10 The Permittee shall use the records required by Condition 6.2K.9 to determine and record the twelve consecutive month total greenhouse gas emissions (expressed as CO_2e), in tons, from the hot oil furnace with emission unit ID No. B030 during all periods of operation. The Permittee shall use the applicable greenhouse gas emission factors and global warming potentials used in Application No. 21476. A twelve consecutive month total shall be the total for a month in the reporting period plus the totals for the previous eleven consecutive months. These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.
[40 CFR 52.21, 40 CFR 70.6(a)(3)(i), 391-3-1-.02(2)(6)(b)1.]

Reporting Requirements

6.2K.11 The Permittee shall furnish the Division written notification as follows:
[40 CFR 52.21 and 40 CFR 60.7]

a. A notification of the actual date of commencement of construction of the project within 15 days of such date of commencement of construction.

b. A notification of the number of days that construction of the project took place per calendar quarter. The Permittee shall submit this report for each quarterly period ending March 31, June 30, September 30, and December 31 of each year as part of the quarterly report required by Condition 6.1.4.

c. A notification of the actual date of initial startup of the final project within 15 days of such date of initial startup.

Recordkeeping Requirements

6.2L.1 The Permittee shall maintain the following records as the relate to hot oil furnace with emission unit ID No. B030 and 40 CFR 63 Subpart DDDDD:

a. A copy of each notification and report submitted by the Permittee to comply with 40 CFR 63 Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status annual compliance reports.
[40 CFR 63.10(b)(2)(xiv) and 40 CFR 63.7555(a)(1)

b. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations.
[40 CFR 63.10(b)(2)(viii) and 40 CFR 63.7555(a)(2)]

c. The Permittee shall maintain the records in a form suitable and readily available for expeditious review.
[40 CFR 63.10(b)(1) and 40 CFR 63.7560(a)]

d. The Permittee shall maintain each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
[40 CFR 63.10(b)(1) and 40 CFR 63.7560(b)]

e. The Permittee must keep each record on site, or they must be accessible from on site for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee can keep the records off site for the remaining three years.
[40 CFR 63.10(b)(1) and 40 CFR 63.7560(c)]

Part 63 Subpart DDDDD Reporting Requirements - Initial Notification of Startup

6.2L.2 The Permittee shall submit an **Initial Notification** to the Division not later than 15 days after the actual date of startup of hot oil furnace with emission unit ID No. B030.
[40 CFR 63.9(b)(5)(ii) and 40 CFR 63.7545(c)]

Part 63 Subpart DDDDD Reporting Requirements - Initial Notification of Compliance Status

6.2L.3 The Permittee shall submit an **initial Notification of Compliance Status** to the Division regarding hot oil furnace with emission unit ID No. B030 that meets the following requirements:
[40 CFR 63.9(h)(2)(ii), 40 CFR 63.7530(e) and 40 CFR 63.7545(e)]

a. The initial Notification of Compliance Status shall be submitted before the close of business on the 60th day following the completion of the initial compliance demonstration required by Condition 5.2L.X according to 40 CFR 63.10(d)(2).

b. Include a signed certification that the energy assessment was completed according to Table 3 of 40 CFR 63 Subpart DDDDD and is an accurate depiction of the emission unit at the time of the assessment.

Part 63 Subpart DDDDD Reporting Requirements –Compliance Reports

6.2L.4 The Permittee must submit **a report** for hot oil furnace with emission unit ID No. B030 per 40 CFR 63.7550(a). This report shall contain the following information:
[40 CFR 63.7540(b), 40 CFR 63.7545(e), 40 CFR 63.7550(a) and (c)]

a. Company and Facility name and address.

b. Process unit information, emissions limitations, and operating parameters limitations.

c. Date of report and beginning and ending dates of the reporting period.

d. The total operating time during the reporting period.

e. The date of the most recent tune-up.

f. Information specified by 40 CFR 63.7545(e)(1) through (e)(8).

g. Each instance in which the Permittee did not meet the applicable requirements of Table 3 of 40 CFR 63 Subpart DDDDD must be reported as a deviation in accordance with 40 CFR 63.7540(b). This report must contain the information required by 40 CFR 63.7550(d) if one or more deviations occurred. If not deviations occurred the report shall so state.

h. Submit this report using the electronic instructions specified in 40 CFR 63.7550(h)(3).

6.2L.5 The first compliance report required by Condition 6.2L.4 must cover the period beginning with initial startup and the first year after initial startup in accordance with 40 CFR 63.7550(b)(1). This report must be postmarked or submitted no later than January 31 in accordance with 40 CFR 63.7550(b)(2).
[40 CFR 63.7550(b)]

PART 7.0 OTHER SPECIFIC REQUIREMENTS

7.1 Operational Flexibility Associated with this Amendment

Not Applicable.

7.2 Off-Permit Changes Associated with this Amendment

Not Applicable.

7.3 Alternative Requirements Associated with this Amendment

[White Paper #2]

Not Applicable.

7.4 Insignificant Activities Associated with this Amendment

(see Attachment B for the list of Insignificant Activities in existence at the facility at the time of permit issuance)

Not Applicable

7.5 Temporary Sources Associated with this Amendment

[391-3-1-.03(10)(d)5 and 40 CFR 70.6(e)]

Not Applicable.

7.6 Short-term Activities Associated with this Amendment

(see Form D5 "Short Term Activities" of the Permit application and White Paper #1)

Not Applicable.

7.7 Compliance Schedule/Progress Reports Associated with this Amendment

[391-3-1-.03(10)(d)3 and 40 CFR 70.6(c)(4)]

None applicable.

7.8 Emissions Trading Associated with this Amendment

[391-3-1-.03(10)(d)1(ii) and 40 CFR 70.6(a)(10)]

Not Applicable.

7.9 Acid Rain Requirements Associated with this Amendment

Not Applicable.

7.12 Revocation of Existing Permits and Amendments

Not Applicable.

7.13 Pollution Prevention Associated with this Amendment

Not Applicable.

7.14 Specific Conditions Associated with this Amendment

None applicable.

Attachments

A. List of Standard Abbreviations and List of Permit Specific Abbreviations
B. Insignificant Activities Checklist, Insignificant Activities Based on Emission Levels and Generic Emission Groups
C. List of References

ATTACHMENT A

List Of Standard Abbreviations

AIRS	Aerometric Information Retrieval System
APCD	Air Pollution Control Device
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BTU	British Thermal Unit
CAAA	Clean Air Act Amendments
CEMS	Continuous Emission Monitoring System
CERMS	Continuous Emission Rate Monitoring System
CFR	Code of Federal Regulations
CMS	Continuous Monitoring System(s)
CO	Carbon Monoxide
COMS	Continuous Opacity Monitoring System
dscf/dscm	Dry Standard Cubic Foot / Dry Standard Cubic Meter
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning and Community Right to Know Act
gr	Grain(s)
GPM (gpm)	Gallons per minute
H_2O (H2O)	Water
HAP	Hazardous Air Pollutant
HCFC	Hydro-chloro-fluorocarbon
MACT	Maximum Achievable Control Technology
MMBtu	Million British Thermal Units
MMBtu/hr	Million British Thermal Units per hour
MVAC	Motor Vehicle Air Conditioner
MW	Megawatt
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x (NOx)	Nitrogen Oxides
NSPS	New Source Performance Standards
OCGA	Official Code of Georgia Annotated

PM	Particulate Matter
PM_{10} (PM10)	Particulate Matter less than 10 micrometers in diameter
PPM (ppm)	Parts per Million
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
RMP	Risk Management Plan
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2 (SO2)	Sulfur Dioxide
USC	United States Code
VE	Visible Emissions
VOC	Volatile Organic Compound

List of Permit Specific Abbreviations

GHG	Greenhouse Gases
N_2O	Di-nitrogen oxide

ATTACHMENT C

LIST OF REFERENCES

1. The Georgia Rules for Air Quality Control Chapter 391-3-1. All Rules cited herein which begin with 391-3-1 are State Air Quality Rules.

2. Title 40 of the Code of Federal Regulations; specifically 40 CFR Parts 50, 51, 52, 60, 61, 63, 64, 68, 70, 72, 73, 75, 76 and 82. All rules cited with these parts are Federal Air Quality Rules.

3. ***Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, Procedures for Testing and Monitoring Sources of Air Pollutants.***

4. ***Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, Procedures for Calculating Air Permit Fees***.

5. Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume I: Stationary Point and Area Sources. This information may be obtained from EPA's TTN web site at *www.epa.gov/ttn/chief/ap42/index.html*.

6. The latest properly functioning version of EPA's **TANKS** emission estimation software. The software may be obtained from EPA's TTN web site at *www.epa.gov/ttn/chief/software/tanks/index.html*.

7. The Clean Air Act (42 U.S.C. 7401 et seq).

8. White Paper for Streamlined Development of Part 70 Permit Applications, July 10, 1995 (White Paper #1).

9. White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program, March 5, 1996 (White Paper #2).